ARCHAEOLOGY AT AYERS TOWN AN EARLY FEDERAL PERIOD COMMUNITY IN THE CATAWBA NATION



PREPARED FOR MULKEY ENGINEERS & CONSULTANTS AND SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

RESEARCH REPORT 37 RESEARCH LABORATORIES OF ARCHAEOLOGY UNIVERSITY OF NORTH CAROLINA CHAPEL HILL

2015

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MANAGEMENT SUMMARY

The Ayers Town site (38YK534) was discovered in 2008 during an archaeological and architectural survey by Legacy Research Associates to assess the impact of the proposed SC Bridges over the Catawba River and Twelve Mile Creek project near Catawba, South Carolina. The site was found to contain evidence of an eighteenth-century residential occupation by members of the Catawba Indian Nation and was recommended as being eligible for the National Register of Historic Places under Criterion D for its information potential. In 2010, the South Carolina Department of Transportation sub-contracted, through Mulkey Engineers and Consultants, with the Research Laboratories of Archaeology at the University of North Carolina at Chapel Hill to undertake archaeological data recovery at the site. Because of the site's small size, its planned impact from the re-location of a high-pressure gas pipeline adjacent to the highway, and the potential for archaeologically and culturally sensitive features being present, the scope of work called for complete excavation of the site.

Archaeological field investigations began on April 20, 2010 and were completed on January 6, 2011. These investigations included: (1) mapping of shovel test pits previously excavated by Legacy archaeologists and comprehensive metal detection survey to identify site limits and determine areas of artifact concentration; (2) remote sensing survey using a gradiometer and soil-auger testing at one-meter intervals to identify subsurface pit features; (3) systematic excavation of 24 1x1-m test pits across the site at 10-m intervals to assess site stratigraphy and sample artifacts from plowed soil deposits; (3) excavation of 87 additional 1x1-m units in 14 blocks to fully expose archaeological features identified in test pits and explore other areas suspected to contain archaeological features; (4) stripping of plowed soil using a mini-excavator and cleaning the exposed top-of-subsoil surface to identify and map archaeological features; and (5) the excavation of identified archaeological features.

One hundred and ninety-one archaeological features were found; of these, 165 are attributed to an historic, late eighteenth-century Catawba site occupation based on artifact content or spatial context, two are attributed to earlier Archaic or Woodland period occupations, and 24 were determined to be natural soil disturbances. Features associated with the main Catawba occupation of the site include: 22 sub-rectangular and circular storage pits; 16 basin-shaped borrow pits; 40 postholes; 45 small, charcoal-filled smudge pits; 31 rectangular graves; five other small pits; five refuse-filled stump holes; and an erosional gully thought to be associated with a late eighteenth-century road running through the site. Cultural deposits within features were excavated stratigraphically, and all fill was processed by a combination of waterscreening through fine mesh and flotation. The spatial arrangement of features indicates a small town comprised of 12 structure or house localities arranged within five residential complexes and three cemeteries located between two of the residential areas. Structures of both horizontal log and vertical, post-in-ground construction appear to be represented. These houses and cemeteries are positioned along both sides of a hypothesized road corridor.

Archaeological investigations at Ayers Town resulted in the recovery of 22,488 cultural artifacts, excluding fire-broken rock, fired clay or daub, and subsistence remains. Of these, 2,148 are attributed to sporadic site occupations during the Archaic and Woodland periods

(between about 8500 BC and AD 1000), and 17 are the result of twentieth-century activities. The remaining 20,323 artifacts are attributable to a historic Catawba village dating to the late 1700s. Catawba-made pottery comprises more than 85% of this assemblage and represents pans, jars, bowls, plates, and cups. Most represent European vessel forms, are burnished or uniformly smoothed, and are made using reddish brown or pale gray clay with little or no visible temper. Some of this clay has been identified through elemental analysis as likely coming from the nearby Nisbet Bottoms where present-day Catawba potters still obtain their clay. Numerous rim fragments have painted lip treatments produced with red sealing wax.

English ceramics, while not abundant, represent several different ware groups, some which were obsolete by the time Ayers Town was occupied. In descending order of frequency, these include creamwares, pearlwares, clouded ware, green-glazed cream-bodied wares, Jackfield ware, tin-enamelled wares, Chinese porcelain, and two fragments of an embossed rocco antico stoneware lid. The uneven distribution of creamware and pearlware ceramics within the excavated features suggests different occupational histories for some of the houses at Ayers Town. Other artifacts from Ayers Town mostly represent European or Euroamerican-manufactured goods and include: cast iron cookware, tinware, and glassware; harness, bridle, saddle, and wagon hardware; hand-wrought nails; gun parts, flints, and ammunition; scissors, needles, pins, and thimbles; buttons and cufflinks; almost 1,500 glass beads; Catawba-made and English kaolin tobacco pipes; Jew's harps; and a 1782 George III Hibernia halfpenny.

Historical documents suggest that Ayers Town, named for the town's leader in the late 1790s, Col. John Ayers, was established by Catawbas returning from Virginia in 1781 and was occupied until about 1800. Lady Henrietta Liston, an English traveler who visited the town in 1797, noted that about 300 Catawbas lived in the Nation at that time and were settled at Ayers Town and two other towns on the opposite side of the river. She observed Catawbas living in two types of houses—cribbed-log structures with a central hearth which she regarded as a more traditional house form, and cribbed-log structures with an end chimney and fireplace—and her overall description of the town indicates that it was larger than the archaeological site that now represents it. Most of the surrounding site area was heavily impacted in the mid-twentieth century by road construction and soil borrowing activities.

Most of the cultural features at Ayers Town have been excavated; however, unlike most sites that undergo archaeological data recovery to mitigate their loss due to the adverse effect of a project, Ayers Town remains a significant cultural resource. As an archaeological site, it has yielded significant new information about the Catawba Nation during the late 1700s and provides tangible evidence of the Catawbas' long and rich heritage; and as an extant cemetery, it remains a place that is sacred to the descendant Catawba community. For both of these reasons, it is imperative that Ayers Town be properly managed and monitored to insure its long-term protection.

ACKNOWLEDGMENTS

First and foremost, we would like to thank Mr. Chad Long, NEPA Coordinator/ Archaeologist with the South Carolina Department of Transportation, both for his advocacy of archaeological data recovery at the Ashe Ferry and Ayers Town sites and for his helpful assistance throughout the field and analysis phases of the project. We also are grateful for the advice given by Mr. Charles Cantley of the South Carolina State Historic Preservation Office and Dr. Wenonah Haire of the Catawba Tribal Historic Preservation Office.

Site excavations were contracted through Mulkey Engineers and Consultants of Cary, North Carolina, and we wish to acknowledge Ms. Michelle Fishburne of that office for her assistance in administering the contract. Her counterparts at the University of North Carolina at Chapel Hill were Ms. Brenda A. Moore and Ms. Lisa-Jean Michienzi, both with the Research Laboratories of Archaeology, and Ms. Cathy Rogers of the UNC Office of Sponsored Research. Dr. Vincas P. Steponaitis, director of the Research Laboratories of Archaeology, provided much behind-the-scenes guidance in facilitating the project.

Archaeological data recovery at the Ayers Town site was directed by Drs. Brett H. Riggs and R. P. Stephen Davis, Jr., and undertaken in three phases. The first phase of fieldwork, undertaken between April 20 and May 5, 2010 and consisting of initial site mapping and systematic metal detecting, was performed by Mary Beth Fitts and Johann Furbacher.

During the second phase of investigation, between May 13 and July 1, 2010, students and staff of the UNC archaeological field school conducted systematic test excavations, block excavations, auger testing, and excavation of archaeological features. A magnetometer survey of the site was conducted by Dr. Gerald F. Schroedl and Mr. Stephen Yerka of the University of Tennessee. Following initial testing and remote sensing, a portion of the site was exposed by mechanical stripping of topsoil using a mini-excavator. This operation was skillfully performed by Mr. Byron K. Hill of B. K. Hill and Associates, LLC, of Rock Hill, South Carolina. The field school staff consisted of Brooke Bauer, David Cranford, Elise Duffield, Duane Esarey, Mary Beth Fitts, Johann Furbacher, Bill Jurgelski, Mark Plane, Anna Semon, Erin Stevens, and Rebecca Wingo. Field school students included Timothy Barco, Rosanna Crow, Natalie DeMasi, Yosha Gunasekera, Shane Hale, Jonathan Leggett, Katherine Mullis, Laura Parks, Alyssa Parry, Sarah Settle, Michelle Stanfield, Elaine Tolbert, Mary Walker, and Abigail Winegarden. Lillian Ondus also assisted as a volunteer.

The final phase of investigation occurred between November 19, 2010 and January 6, 2011, and involved stripping the remainder of the site, mapping exposed archaeological features, and excavating all features other than graves. This work was conducted by David Cranford, Eric Deetz, Elise Duffield, Duane Esarey, Mary Beth Fitts, Johann Furbacher, Bill Jurgelski, Lillian Ondus, and Erin Stevens. Byron Hill again operated the mini-excavator and backfilled the excavation at completion of the project.

Cleaning and cataloging of the artifacts recovered from Ayers Town were performed by undergraduate employees and volunteers in the Research Laboratories of Archaeology. They included Jacqueline Berton, Jonathan Branch, Caroline Carter, Rosie Crow, Elise Duffield, Shane Hale, Cassie Marcelo, Carmen Mendoza, Bouran Mozayen, Becka Rohrer, Sarah Settle, Archie Smith, Janice Tse, and Andy Valiunas. David Cranford assisted Steve Davis with the ceramic analysis, and David Cranford and Elise Duffield illustrated the ceramic vessel sections shown in Appendix B. Elise Duffield also analyzed the glass beads found at the site and assisted with other artifact analyses. Bouran Mozayen analyzed the buttons, and Mallory Melton conducted a preliminary study of the clay pipes and pipe fragments. Rosanna Crow undertook a chemical characterization study of Catawba ceramics and potter's clay samples from the site to evaluate potential clay sources and examine relationships of the site to the Old Town site. Dr. Thomas R. Whyte of Appalachian State University undertook the analysis of zooarchaeological remains, and Mary Beth Fitts conducted the analysis of paleobotanical remains in consultation with Dr. C. Margaret Scarry of the University of North Carolina. David Cranford wrote the descriptions of archaeological features presented in the appendix.

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Chapter 1 INTRODUCTION

This report documents archaeological data recovery investigations by the Research Laboratories of Archaeology (hereafter termed "RLA"), The University of North Carolina at Chapel Hill, at site 38YK534 in York County, South Carolina. These investigations, along with additional excavations at a nearby archaeological site, 38YK533 or Ashe Ferry, were conducted under contract with Mulkey Engineers & Consultants to provide for mitigation of adverse effects to these archaeological resources by planned South Carolina Department of Transportation replacement of the SC Highway 5 bridges across the Catawba River and Twelve Mile Creek (Figures 1.1, 1.2, and 1.3). Both sites had previously been determined eligible for inclusion in the National Register of Historic Places by reference to Criterion D, which assigns significance to cultural resources that have the quality and capacity to "yield ... information important to history or prehistory" (36 CFR Part 60.4). In addition, the South Carolina Department of Transportation, in consultation with the South Carolina State Historic Preservation Office and the Catawba Indian Nation Tribal Historic Preservation Officer, determined that mitigation of adverse effects to these National Register-eligible resources by the proposed bridge construction undertaking would consist of recovery and documentation of archaeological evidence to actualize the "information important to history or prehistory" judged to be present within these sites. Within this context, it should be noted that a site's archaeological importance is not simply a pro forma combination of contextual integrity and substantive material content, but rather a quality that is gauged by the potential or demonstrated capacity of the site to yield information that is salient and essential within an articulated framework of archaeological inquiry.

Archaeological site 38YK534, also known as the Ayers Town site, was discovered in 2008 during a cultural resources survey within the proposed SC Highway 5 bridge replacement project area by archaeologists working for Legacy Research Associates, Inc. It was located on the north side of SC Highway 5 approximately 880 m west of the Catawba River bridge. Here, Legacy archaeologists delineated a 65 m x 60 m site area as defined by the presence of historic-era Catawba ceramic sherds (indicative of a Federal period component) and lithic artifacts (representing one or more Archaic and possible Woodland period archaeologists. The 2009 Legacy Research Associates final report notes "38YK534 is recommended as being eligible for the NRHP under Criterion D for its information potential. The ca. 1760–1780 Catawba component at 38YK534 is an example of mid-eighteenth century Catawba occupations similar to those excavated at Nassaw Town (38YK434)..." (Legacy Research Associates 2009:70).

Contemporary documentary evidence intimates the inception of historic-era Catawba Indian occupancy of the west side of the Catawba River in 1781, and it appeared likely at the onset of field investigations by UNC archaeologists that the Catawba archaeological component at 38YK534 did not predate this horizon. By comparison with other late Colonial period, Revolutionary War period, and early Federal period components documented at the nearby sites of Old Town (RLA-SoC 634) and New Town (RLA-SoC 632/635) (Davis and Riggs 2004;

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Figure 1.1. Aerial photograph taken March 30, 2004 of the project area, showing the locations of archaeological sites 38YK533 and 38YK534 in relation to SC Highway 5. Note the prehistoric fish weir (38YK535/38LA569) at the shoals in the river just northeast of 38YK533. Photo from Google Earth (© 2012 Orbis, Inc.).

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Figure 1.2. Aerial photograph taken March 26, 2012 of the project area, showing the locations of archaeological sites 38YK533 and 38YK534 in relation to new highway and bridge construction along SC Highway 5. Photo from Google Earth (© 2012 Orbis, Inc.).

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Figure 1.3. Close-up aerial photograph taken March 26, 2012 of archaeological site 38YK534, showing the site boundary, adjacent road construction, and the relocated high-pressure gas pipeline. Photo from Google Earth.

Riggs et al. 2006), the historic-era Catawba Indian component at 38YK534 was deemed most likely the product of an early post-Revolutionary war occupation (c. 1781–1800). As such, it was regarded as most directly comparable to recently documented contexts and assemblages at Old Town, located about 4 km upstream on the east side of the river, and thus constituted a potentially important context for inter-household and intercommunity comparisons of the early Federal period Catawba archaeological record. Such comparisons can shed light on the role of individual households and community segments in the social and economic transformations of Catawba society in the aftermath of the Revolution. During this period, Catawba households gradually abandoned subsistence horticulture in favor of itinerant pottery production and sales, augmented by land lease payments. In addition, comparison of evidence from 38YK534 with data from Old Town could reveal continuing community-scale differences in housing, subsistence, and other material practices that relate to the persistence of pre-1760 ethnic identities within Catawba society. It may be asserted, therefore, that the historic-era Catawba Indian component at 38YK534 assumes particular significance in the context of the RLA's continuing program of research that explores diachronic pattern and change in Catawba society in the post-contact era (Davis and Riggs 2004; Riggs 2010).

Topographic Setting

The Ayers Town site is located in the Piedmont physiographic province at the western edge of the Catawba River valley in southeast York County, South Carolina (Figure 1.4). It is situated along the front edge of a pre-Holocene terrace, about 450 m southwest of the river channel and immediately adjacent to the active T-1 alluvial terrace. The site area, lying nine meters above



Figure 1.4. LiDAR-based relief map of the Catawba River valley showing the topographic setting of the Ashe Ferry (38YK533) and Ayers Town (38YK534) sites opposite the mouth of Twelvemile Creek. (Site locations removed)

the normal river level and almost four meters above the back edge of the T-1 terrace, is not subject to periodic flooding; however, the site would have been submerged by the July, 1916 flood. During this epic event, a 16.5-m (54 ft) high Southern Railway trestle across Catawba River, located less than two miles (2.8 km) downstream from the site, was floated off its piers by floodwaters (Southern Railway Company 1917:102). Other severe floods along the Catawba River, including those in 1901 and 1912, also may have put the site under water (Atlanta Constitution 1901a, 1912).

The eastern edge of the site is coincident with and defined by the front edge of the pre-Holocene terrace (see Figure 1.4). Along this edge, and extending westward several meters into the site, the subsoil contains a bed of alluvial cobbles that represents a relict stream channel or gravel bar (Figure 1.5). The presence of this cobble bed would have inhibited the excavation by the site's occupants of subsurface pits in this part of the site, and this is borne out by the results of archaeological excavation.

A natural feature also defines the northern edge of the site. Although the modern ground surface slopes gently beyond the northern site edge, this surface is a modern feature created by extensive soil erosion and deposition. Whereas the topsoil is about 30 cm thick at the north edge of the site (i.e., in the vicinity of Features 106–109), 25 m to the north, at Square 912R170, the top of subsoil surface is buried beneath more than 60 cm of redeposited sediments. Fragments of Catawba pottery occur in these sediments from top to bottom, indicating that they were deposited during or after, but not before, the Catawba site occupation. Feature 102, a buried erosional



Figure 1.5. Alluvial cobbles exposed at the base of plowed soil in Square 860R210, located at the eastern edge of the site.

gully exposed by excavations at the northwest edge of the site, provides a perspective on what the land surface may have been like at the time of Ayers Town. The gully formed just west of Feature 109, between two house areas defined by Features 106–108 (Structure Locality 5) and Feature 5 (Structure Locality 7), and became progressively wider and deeper toward the northwest. The deposits within the gully, as well as the overlying, finely lensed sheet wash, contained Catawba potsherds and other artifacts attributable to the Ayers Town occupation. These two stratigraphic units were clearly separate and distinct, suggesting that they were not part of the same depositional process (see description of Feature 102 in Appendix A).

The land surface west of the site originally had a gradual upward slope; however, aerial photographs taken during and after the SC Highway 5 bridge was constructed in 1959 indicate that this area was extensively modified at that time (Figure 1.6). Similarly, the land surface flanking the highway just south of the site and the terrace surface south of the highway were modified by filling (north of the road) or cutting (south of the road). The filling north of the road capped a few archaeological features at the edge of the site with as much as a meter or more of highly compacted soil, while south of the road as much as a meter of soil was removed, eradicating any scattered archaeological features that might have been present there. The elevation of the present land surface south of the highway is almost two meters lower than the surface of the Ayers Town site, and numerous shovel test pits dug as far as 80 m south of the highway failed to yield any artifacts or evidence of undisturbed soils. Fortunately, neither the construction of the highway nor the soil-borrowing activities associated with it appear to have adversely impacted the site, as those disturbances occurred just beyond the archaeologically identified boundaries of the site. The only associated activity that may have disturbed one or



Figure 1.6. Aerial photograph showing the Ayers Town site area in 1959, during construction of the SC Highway 5 bridge and approaches. The site boundary is shown in red; the white areas west and south of the site indicate extensive soil removal. Photo 1959-PL-3W-238; courtesy of Chad Long, South Carolina Department of Transportation. (Site location removed)

more archaeological features was the placement of two high-pressure gas pipelines along the north side of the highway. These pipelines cut across the south edge of the site.

Soils and Site Stratigraphy

The soil at Ayers Town is classified as Wickham sandy loam, 2 to 6 percent slopes, eroded (WcB2). Wickham series soils are described as deep, well-drained, moderately permeable soils that developed from alluvium derived from granite, gneiss, schist, and basic rocks. They are common along the older terraces that flank the Catawba valley and would have supported a forest composed of oak, hickory, elm, and gum, and an understory of elders, vines, briers, and native grasses (Camp 1965:34).

The typical profile for Wickham sandy loam, described by Camp (1965:34), is consistent with that observed at Ayers Town and is as follows: "0–7 inches, dark-brown, very friable sandy loam; 7 to 20 inches, reddish-brown, very friable sandy clay loam [with] weak subangular blocky structure; 20 to 35 inches, yellowish-red, friable clay loam [with] subangular blocky structure; 35 to 42 inches, clay mottled with red and yellowish red...; [and] 42 to 46 inches +, sandy clay loam mottled with red, yellowish red, and brownish yellow."

The plow zone, comprising Camp's uppermost soil unit, ranged in depth from about 10 cm (~4 inches) at the east edge of the site to almost 30 cm (~12 inches) at the west edge. It was

capped by a thin layer of humus and consisted of a mixture of topsoil, midden, and plowdisturbed subsoil clay. Excavators generally described the plow zone as a silty or silty clay loam, and it varied in color from dark yellowish brown (10YR 3/4) to dark brown (7.5YR 3/4) to strong brown (7.5YR 4/6). Except for pits, postholes, and other cultural disturbances that extended below the base of plow zone, all artifacts and other evidence of cultural activity were contained within this zone. As was noted above, the site experienced severe soil erosion sometime following the abandonment of Ayers Town, and much of the eroded soil (and artifacts) was redeposited on the terrace slope flanking the north edge of the site (also see discussion of Feature 102 in Appendix A).

Excavations terminated at the base of plow zone, except where archaeological features intruded subsoil. This subsoil, Camp's second soil unit, was a stiff, friable clay or clay loam that ranged in color from yellowish red (5YR 5/8) to red (2.5YR 4/8) and was also observed in the walls and floors of the deepest excavated archaeological features (e.g., Feature 123, a deep storage pit that extended 58 cm [~23 inches] below the base of plow zone).

The mottled red, yellowish red, and brownish yellow clays that Camp describes for his deepest soil units were not observed directly; however, soils matching this description were consistently observed in the tops of the more than two dozen long, rectangular features interpreted as graves. Similar soils also were observed in the backfill of the two high-pressure gas pipeline trenches that cut across the south edge of the site. The presence of these soils in these contexts suggests that they were originally dug to a depth of almost a meter below the base of plow zone.

As with other eighteenth-century Catawba towns described by travelers and depicted on maps, the adjacent alluvial bottomlands, which provide more than 100 acres of arable land, likely served as agricultural fields for the cultivation of corn and other crops (Davis 1942:553; Williams 1930:236). These bottomlands comprise the first, or T-1, terrace and contain soils of the Chewacla and Congaree series (Camp 1965:17–18). Chewacla silt loam (Ch), which lies at the back edge of the terrace, adjacent to Ayers Town, is more poorly drained than the Congaree fine sandy loam (Cn) which covers most of the terrace. Both soils are characterized as being high in natural fertility and are well suited to corn agriculture. Lady Henrietta Liston (1797), writing about a visit to Ayers Town late in the eighteenth century, noted that "the only cultivation we saw was a small quantity of Indian corn in the vicinity of the Town." It is presumed that this cornfield was on the first terrace adjacent to the town.

Climate

The Ayers Town locality has a humid subtropical climate, with warm, humid summers and mild winters, and average annual precipitation (mostly rainfall) of 46.1 inches (Landers 1974; South Carolina State Climatology Office 2012). Daytime temperatures during midsummer are typically near 90°F; the record high temperature is 106°F. Winter daytime temperatures are usually above 40°F; a record low winter temperature of -4°F is reported. The average growing season between seasonal frosts is 220 days. These present-day conditions probably approximate the climatic regime established after abatement of the Holocene Climate Optimum (ca. 5000 BP), and likely reflect prevalent conditions experienced during sporadic site occupations by Late Archaic and Woodland peoples (ca. 3000 BC–AD 1000). Earlier site occupants, evidenced by the occurrence of artifacts attributable to the late Paleoindian, Early Archaic, and Middle Archaic

periods (ca. 8,500–3000 BC), probably would have experienced a climate that was both cooler and moister with harsher winters (Watts 1980:197).

The historic Catawba occupation of the site is situated within the Little Ice Age climatic episode (ca. AD 1450–1850), a period generally defined by marked cooling and drying trends (Stahle and Cleaveland 1994); however, the degree to which temperatures and rainfall during the latter half of the 1700s varied from those earlier in this episode is not known. Robert Mills (1826:133–134), citing South Carolina historian David Ramsay, notes that between 1731 and 1802, "the difference between our coolest and warmest summers has ranged between 88 and 93, and the difference between our mildest and coolest winters has ranged (on a few particular days) from 50° to 17° of Fahrenheit." These temperature ranges are generally consistent with current trends. Mills (1826:135) also notes that the total rainfall in Charleston for 1802 was 39.1 inches, and that more than half of that total occurred during July, August, and September. Almost no rain was reported for October, January, February, or March.

Biotic Environment

Ayers Town is situated in a historically rich biotic environment, with proximate access to a wide range of riverine and terrestrial resources important to human economies. The site is positioned within the greater Piedmont Level III ecoregion (Omernik 1995), a zone broadly dominated by variations of the oak-hickory community or oak-hickory pine community (Braun 1950; Skeen et al. 1993). Notable terrestrial habitats defined in the north-central South Carolina piedmont include oak-hickory forest, basic (i.e., alkaline) forest, bottomland hardwood forest, cove forest, levee, shoal and stream bar, mesic mixed hardwood, montmorillonite forest, piedmont seepage forest, small stream forest, and upland depression swamp forest (Nelson 1986), as well as piedmont savannah (Barden 1997; Davis et al. 2002; Juras 1997; Schmidt and Barnwell 2002).

Most of these stable/climax habitats are now reduced to vestigial tracts scattered through a mosaic-developed landscape, and the original distribution of these habitats must be inferred by reference to existing local physiography. The Ayers Town locality is within the Carolina Slate Belt Level IV ecoregion of the piedmont, where felsic substrates in the uplands probably dictate a climax Piedmont Dry-Mesic Oak-Hickory Forest subtype (Grossman et al. 1998) characterized by a white oak/red oak/mockernut hickory/pignut hickory-dominated canopy with subcanopy species including sourwood, red maple, black gum, dogwood, redbud, and American holly. The understory is often dominated by hillside or dryland blueberry, with climbing vines such as muscadine grape and poison ivy. Herbaceous plants and grasses are sparse but omnipresent. Slightly more mesic settings in ravines or on lower slopes with northerly aspects probably presented mesic mixed hardwood forest, with canopies dominated by white oak, southern red oak, tulip poplar, red maple, and American beech, and understory including dogwood, American holly, and heaths (Nelson 1986).

The sandy alluvial levee along the Catawba River adjacent to Ayers Town probably supported a mixed community with stands of river cane interspersed with sycamore, river birch, box elder, black willow, red maple, tulip poplar, green ash, sweet gum, and elm. The extensive terrace complex adjacent to the site likely hosted a mix of piedmont bottomland forests that included canopy species such as swamp chestnut oak, water oak, willow oak, loblolly pine, sycamore, green ash, box elder, red maple, tulip poplar, sweet gum, elm, red maple, hackberry, cottonwood, and American holly. Older, more elevated terraces such as the one where Ayers Town is situated probably were covered with either mesic mixed hardwood or mesic oak-hickory forests.

Diverse terrestrial fauna populated habitats surrounding Ayers Town and comprise species typical of the oak-hickory zone of the Southern Temperate Deciduous Forest Biome (Shelford 1963:57). Contemporary mammalian fauna of the north-central piedmont region of South Carolina (Fields 2007) include white-tailed deer, black bear, gray squirrel, fox squirrel, southern flying squirrel, opossum, eastern cottontail rabbit, chipmunks, woodchucks, beaver, muskrat, gray fox, raccoon, long-tailed weasel, mink, river otter, striped skunk, bobcat, and a wide variety of small rodents (e.g., rice rat, harvest mouse, white-footed mouse, woodrat, pine vole), bats (e.g., red bat, hoary bat, big brown bat, evening bat), shrews (southeastern, short-tailed, least), and the eastern mole. Extirpated species include cougar, elk, gray wolf, and possibly bison and red wolf. The zooarchaeological record from Ayers Town (see Chapter 7) documents white-tailed deer, black bear, tree squirrel, gray squirrel, cottontail, raccoon, and opossum as the non-domesticated mammalian species most important to the Ayers Town inhabitants.

The varied habitats of the central piedmont once hosted a profusion of resident and migratory birds. Loomis (1891) reports records of 202 species in nearby Chester County. Recent annual bird counts conducted in York County have documented 126 species present in midwinter, with as many as 80 species present in a single year. Archaeological contexts at Ayers Town provided evidence for wild turkey, mourning dove, mallard, sparrow, eastern blue jay, mimic thrush, pileated woodpecker, and common flicker. Conspicuously absent from Ayers Town and other historic-era Catawba village samples are grassland/edge habitat species such as bobwhite and meadow lark, as well as passenger pigeon, which Lawson (1709) reports in vast abundance in the central piedmont region.

Terrestrial and aquatic habitats along the Catawba River in the vicinity of Ayers Town also abound in reptiles and amphibians, including diverse colubrid (e.g., eastern garter snake, scarlet snake, black racer, corn snake, rat snake, eastern hognose snake, eastern kingsnake, northern water snake, rough green snake, queen snake) and croatalid (i.e., copperhead, timber rattlesnake, pygmy rattlesnake) snakes (Thompson 1982; Wilson 1995). Native lizards include the green anole, eastern fence lizard, six-lined racerunner, coal skink, five-lined skink, southeastern fivelined skink, broadhead skink, mole skink, ground skink, and eastern glass lizard. Turtles common to the area include the box turtle, common snapping turtle, painted turtle, river cooter, slider turtle, eastern mud turtle, common musk turtle, and spiny softshell. Amphipians documented in southern York County include Fowler's toad, eastern spadefoot toad, eastern narrowmouth toad, northern cricket frog, green treefrog, pine woods treefrog, barking treefrog, spring peeper, upland chorus frog, bullfrog, green frog, pickerel frog, and southern leopard frog, along with spotted salamander, marbled, spotted dusky salamander, southern two-lined salamander, three-lined salamander, spring salamander, four-toed salamander, slimy salamander, mud salamander, red salamander, and red-spotted newt. Zooarchaeological samples from Ayers Town provided evidence for frog (Rana sp.), toad (Bufo sp.), eastern box turtle, slider/cooter, eastern mud turtle, and salamander.

The documentary (i.e., Jones 1815; Lawson 1709) and zooarchaeological records indicate that fish were particularly important to human economies in the corridor along the Catawba River. DeWitt (1998) documents 37 native fish species currently resident in the lower Catawba River, including warmouth, bluegill, redbreast sunfish, redear sunfish, green sunfish,

pumpkinseed, black crappie, largemouth bass, brassy jumprock, white sucker, quillback, shorthead redhorse, v-lip redhorse, striped jumprock, gizzard shad, threadfin shad, yellow perch, piedmont darter, tessellated darter, white bass, striped bass, bowfin, longnose gar, mosquitofish, spottail shiner, highfin shiner, greenfin shiner, swallowtail shiner, sandbar shiner, whitefin shiner, eastern silvery minnow, bluehead chub, coastal shiner, white catfish, flat bullhead, snail bullhead, and channel catfish. Mills (1826) also indicates limited runs of anadromous and diadromous fish (e.g., shad, eels) that ascended above the Great Falls of the Catawba prior to major river impoundments. Archaeological contexts at Ayers Town contained the remains of pickerel, Carolina redhorse, redhorse, brassy jumprock, sucker, snail bullhead, bullhead catfish, sunfish, and largemouth bass.

Aquatic habitats near the site also supported molluscan and crustacean fauna useful to the human inhabitants of Ayers Town. Bogan et al. (2008) identify a broad suite of bivalves as having been historically present in the lower Catawba basin, including multiple species of Alasmidonta, Elliptio, Lampsillis, and Villosa. Archaeological contexts in the area have yielded specimens of Elliptio sp.; most of these appear to have been valves used as potters' tools (see Chapters 6 and 7). Crayfish, particularly Cambarus sp. and Procambarus sp. (Eversole and Jones 2004), were also widely available, but no archaeological record of these crustaceans is documented in the area.

History of Site Vicinity

The Ayers Town site lies within the territory claimed by Catawbas at the beginning of the eighteenth century. It also is situated within the original Catawba Nation reservation, measuring 15 miles square, or 144,000 acres, which was established by the Treaty of Pine Tree Hill in 1760 and confirmed by the Treaty of Augusta in 1763. A boundary survey for these reserved lands was completed by Samuel Wyly in early 1764 (Brown 1966:245–246). This reservation was approximately square but rotated about 45 degrees, such that the reservation's corners pointed in the four cardinal directions. The northern boundary now forms part of the border between North Carolina and South Carolina; the southern boundary east of Catawba River followed Line Creek, now known as Twelvemile Creek, while to the west of the river it was marked by a line that ran southwest from the mouth of Twelvemile Creek, just 550 meters south of site 38YK534. This meant that Ayers Town lay at the very edge of the reserved Indian lands (Figure 1.7).

Although the reservation was established to curb encroachment by white squatters on Catawba lands, it was largely ineffective in this regard. Some white settlers, such as Thomas "Kanawha" Spratt who was befriended by the Catawbas, received land grants on the reservation during the years prior to the American Revolution (Merrell 1989:209–210); however, most were not welcome, and Catawba headmen petitioned the South Carolina Council to have them removed (Brown 1966:256). After the Revolution, the Catawba Nation began issuing long-term leases of tribal lands to white settlers in return for annual payments, and this system was formalized by the State of South Carolina in 1785. The state, through its governor William Moultrie, actively encouraged the Catawbas to lease their lands, and three commissioners were named to keep a record of the land transactions, surveyor's plats, and annual lease payments (Pettus 2005:29). Three separate record books were kept by the commissioners during the years between 1785 and 1840, when the leasing system terminated with the Treaty of Nation Ford; unfortunately, only one of these, used by Indian Commissioner Hugh White between 1811 and



Figure 1.7. 1772 map of the Catawba reservation boundary showing the location of archaeological site 38YK534 (North Carolina State Archives, Raleigh).

about 1840 to record leases and lease payments on the east side of the river, has survived (Pettus 2005:9, 31). Because of this, it is unclear if the Catawbas leased the land in and around Ayers Town until just before the 1840 Treaty of Nation Ford. During her extensive research into the Catawba leasing system, Louise Pettus located numerous individual lease plats in the South Carolina State Archive, but none of these refer to the lands along Catawba River opposite the mouth of Twelvemile Creek (Pettus 2005; personal communication 2012). Given that the occupants of Ayers Town likely continued to use the town site as a cemetery in the years following its abandonment (see Chapter 5), it may not have been leased out for agricultural use; however, the land containing the early nineteenth-century settlement of New Town (see Chapter 2) *was* leased in 1833 to George W. Doby, even though Catawbas reportedly continued to bury their dead there until 1855 (Pettus 2005:89; Speck 1939).

Fords, Ferries, and Bridges

While the Catawbas may not have readily relinquished their lands around Ayers Town, the area near the mouth of Twelvemile Creek remained an important place in regional transportation history. The shoals just above the creek could be forded when the river was low, and the

complex archaeological record of Mississippian, Woodland, and Archaic occupations on both sides of the river (i.e., at archaeological sites 38YK533 and 38LA125) attest to the enduring attraction this locale held for native peoples. A stone fish weir, designated as sites 38YK535 and 38LA569 and situated adjacent to site 38YK533, is still visible at the upstream end of the shoals during periods of low water, and would have mediated river conditions to facilitate the river crossing (see Figure 1.1). A straight alignment of stones immediately upstream from the W-shaped weir may be a built component of the ford.

Two accounts from the eighteenth century indicate a ford crossing of the Catawba River just upstream from the mouth of Twelvemile Creek. The first is by John F. D. Smyth, who in 1772 (Merrell 1989:226) visited the Catawba town located on the dividing ridge between Twelvemile Creek and the Catawba River, and then traveled to Camden. Smyth notes:

... I left the Catawbas, and set out on a journey to a very distinguished place of trade, in South-Carolina, lately entitled Camden....

We set out from hence in the morning very early, and ... crossed the Catawba river, at a ford just above the confluence of a considerable rivulet that falls into it on the north-east side named Twelve Mile creek, leaving the great road or trading path on our right, that leads west towards the Cherokee country, our course being almost due south a little easterly; and during all this morning's ride hitherto, we have still been upon the territory belonging to the Catawba nation.

The Catawba is a large and rapid river, containing an enormous quantity of water: it is about three hundred and fifty yards wide, and, although fordable, is deep, and runs in a rocky channel with great velocity. [Smyth 1784:196–197]

Contemporary maps indicate that Smyth traversed the "New Catawba Road" that linked to the Salisbury–Camden road, passed through the main Catawba Town, and crossed the Catawba River above Twelvemile Creek to pass down the west side of the Catawba-Wateree. The road mentioned by Smyth as heading toward the Cherokee ran along the west side of Catawba River through the reservation and in the nineteenth century was known as the Upper Land's Ford Road (see Figure 1.7). Smyth re-crossed the Wateree by ferry near Camden. The road on the west side of the Wateree continued southward through Amelia Township, Dorchester, and eventually attained Charles Town.

During their retreat from Charlotte in October 1780, Cornwallis' Crown army may have followed a similar route between present-day Fort Mill and Winnsboro. Lt. Col. Banastre Tarleton recounted:

... The royal forces remained two days in an anxious and miserable situation in the [old] Catawba settlement [at Thomas Spratt's plantation], owing to a dangerous fever, which suddenly attacked Earl Cornwallis, and to the want of forage and provisions: When the physicians declared his lordship's health would endure the motion of a waggon, Colonel Lord Rawdon, the second in command, directed the King's troops to cross Sugar creek, where some supplies might be obtained from the country.... A few days afterwards the army passed the Catawba river, near Twelve-mile creek, without difficulty or opposition. [Tarleton 1787:167]

Anderson (2012) suggests that Tarleton may have been referring to "where the British Legion crossed first to secure the opposite embankment" since both Davie (1810, in Robinson 1976:27) and Rawdon (1780, in Saberton 2010:126) indicate that the main army passed through the Waxhaw settlements below Twelvemile Creek and crossed further downriver at Land's Ford. Regardless, the lack of more references to the Twelvemile Creek ford suggests that it was not a major crossing point but could afford passage across the river if needed.



Figure 1.8. Section of the 1905 soil map for York County showing the towns, roads, railroads, and ferry located in the vicinity of the Ayers Town site (38YK534) at the beginning of the twentieth century (USDA 1905).

Following the American Revolution, and coinciding with the period during which Ayers Town was occupied (c. 1781–1800), several ferries were established across Catawba River. One of the earliest was McClenahan's Ferry. In 1795, the State of South Carolina licensed Finney McClenahan to establish a ferry on his plantation along Catawba River, less than two miles below Ayers Town (McCord 1841:362). In 1847, the ferry was re-chartered to Thomas R. Cureton and became known as Cureton's Ferry (State of South Carolina 1873:462) (Figure 1.8). It was re-chartered again in 1881 to James M. Ivy, to be known as Ivy's Ferry (State of South Carolina 1882:547). In the twentieth century, it was operated successively by two Catawba men and generally was referred to as "Indian Ferry." John Brown ran the ferry until his death in 1927, and his son Early Brown continued to operate it until 1935 (Reed 1950, 1959). The ferry remained in operation into the 1940s but had been abandoned by 1956 (US Army 1942; Whelan 1956).

By the early 1840s, another ferry was established immediately above the mouth of Twelvemile Creek, less than 100 meters above the old ford and apparently at the same location where Ashe's Ferry operated during the mid-twentieth century. Following the Treaty of Nation Ford, leaseholders were able to acquire title to their lands by submitting to the South Carolina Secretary of State a survey and a copy of their lease (Pettus 2005:47). Titles to two large tracts of land — one on the east side of the river in Lancaster district, adjoining Twelvemile Creek and encompassing 519 acres, and another containing 430 acres on the west side of the river in York district, immediately above the reservation boundary — were deeded to Benjamin Sykes Massey in this manner. On November 1, 1839, less than a five months before the treaty was signed, Massey leased the tract on the east side, described as being 539 acres on "12 Mile Cr. and Catawba R.," and it is possible that he leased the other tract at the same time (Pettus 2005:94). Plats for both tracts, surveyed in late 1843 by James D. McElwain, show roads running across the properties to a river crossing labeled "Massey Ferry" (Figures 1.9 and 1.10). Interestingly,



Figure 1.9. 1843 plat for land deeded to Benjamin S. Massey on east side of Catawba River above Twelvemile Creek. Note the road crossing the tract and river crossing labeled "Massey Ferry."



Figure 1.10. 1843 plat for land deeded to Benjamin S. Massey on west side of Catawba River above Twelvemile Creek. Note the road crossing the tract and river crossing labeled "B. S. Massey Ferry." The site of Ayers Town (38YK534) is located on this tract and is shown in red.

this ferry was never authorized by the state, which suggests that it was a private ferry established for Massey's private use and not operated as a public ferry, or that Massey had been able to operate it without a license since it was located within the Catawba Nation. Two arguments against the latter possibility are: (1) it was not licensed in the years after the reservation was terminated by treaty; and (2) another ferry that operated within the Catawba Nation — the Herron and Spratt Ferry, located above Nation Ford near the center of the Catawba reservation — was granted a license to operate in 1813 (McCord 1841:472). A detailed survey of the Catawba River in 1879 does not show a ferry at Twelvemile Creek, indicating that the Massey Ferry was no longer in operation at this date (US Army 1879).

A second ferry was established at this location in the 1920s, and it operated until the completion of the first SC Highway 5 bridge in 1959 (Figure 1.11). The road approaching the ferry landing from the west ran along the southern edge of the Ayers Town site, and both the approach road and the landing are still clearly evident. Remnants of the old road bed along the north side of SC Highway 5 were revealed during the 2010 archaeological investigations at Ayers Town.

News of the soon-to-be completed ferry was announced in the April 26, 1927 issue of *The Yorkville Enquirer*:

Thanks largely to the enterprise of Mr. W. N. Ashe, there will soon be a new ferry on the Catawba at Catawba Junction which will cut the distance across the river between Van Wyck and Catawba Junction," said Dr. G. W. Hill, veteran physician of Catawba Junction who was a visitor in York last Wednesday. "A site near the Seaboard Bridge crossing the river has been selected by Mr. Ashe for his flat boat and ferry."

Dr. Hill went on to tell: landings have been constructed, the boat has been completed and it is presumed that the new crossing will be ready within a short time now. The new ferry will be the means of elimination of that big hill on the Lancaster side at Cureton's and as I say make a more direct route between the village of Catawba and that of Van Wyck.

The understanding is that Mr. Ashe's principal idea in constructing this new ferry was in order that he might have a more direct connection between his extensive farming interests on both sides of the river; although the general public is to have the benefit of it. And we people down around Catawba Junction feel mighty good over it. [Yorkville Enquirer 1927]

Another account of the ferry's history was provided in 1959 by William Moore, a nephew of W. N. Ashe:

Ashe operated the Ashe Brick Co. on the Lancaster County side of the river and owned a farm on the York County side. In 1927, he built the ferry and a mile and a half of road leading to it. He was aided by both York and Lancaster counties.

Originally called the Ashe Ferry, the square-looking boat went into operation in 1928. When it wore out it was succeeded [sic] by another ferry, and finally by the present craft.

The first ferry was poled across the river. But today's ferry, built in 1942, is motorized.

The original ferry was operated by the Ashes on a private basis. It was taken over by the state in 1942 and became an official link for State Rt. 504. [Rock Hill Evening Herald 1959]

During most of the 1940s and 1950s the ferry was operated by Catawba ferryman Early Brown, who resided in a house on the west bank of the river, "above the reach of high water, yet near enough to hear any motorist who needs ferrying across the river" (Rock Hill Herald 1950); Bigham 1954). W. D. Workman, who visited the ferry in 1953, described its operation as follows:



Figure 1.11. Section of the Monroe, N.C.–S.C. 15-minute series topographic map showing the towns, roads, railroads, and ferries located in the vicinity of the Ashe Ferry (38YK533) and Ayers Town (38YK534) sites in 1941 (US Army 1942). (Site locations removed)



Figure 1.12. Sections of the Catawba, S.C. and Van Wyck, S.C. 7.5-minute series USGS topographic maps showing the towns, roads, and railroads located in the vicinity of the Ashe Ferry (38YK533) and Ayers Town (38YK534) sites in 1968. (Site locations removed)

The entire scene of the ferry reflects by-gone days, for approaches on both sides of the river are dirt, the ferry is an old flat-bottomed barge, and its motive power comes from the push exerted by the ferryman as he poles the craft across the river. Nowadays, that push comes from a wiry young man named Howard George, who does the job for his grandfather, Early Berley Morgan Brown. Both are Catawba Indians of the tribe which historically has lived on the Catawba River lands on York county. [Workman 1953]

Throughout the first half of the twentieth century, local politicians and businessmen pushed to have a highway bridge built that would connect southern York County with northern Lancaster County, providing better access between Rock Hill and both Lancaster and the east—west federal highway (US Highway 74) that ran between Charlotte and Wilmington. The first bridge, which crossed the Catawba River a short distance below the mouth of Sugar Creek, was constructed in 1912 but stood only four years, being washed away by the 1916 flood (Charlotte Observer 2001). Subsequent efforts from the late 1920s through the early 1950s to have a bridge built were unsuccessful due to lack of funds. Finally, in 1956 construction of a two-lane highway bridge using state and federal money was approved (Charleston News and Courier 1956). In part, the decision to finally construct a new bridge was prompted by the announcement of plans by the Bowater Paper Corporation to build a \$100 million dollar pulp mill on the banks of Catawba River just outside Catawba (formerly Catawba Junction). The final decision on where to site the bridge was delayed until Bowater's design plans were finalized. Construction of both projects began in 1957, and both were completed in 1959 (Figure 1.12). With completion of the bridge, the old Van Wyck ferry was decommissioned.

Railroads

Two major railroads — Norfolk Southern and CSX — intersect at Catawba, formerly Catawba Junction, located 1.9 miles (3.1 km) west of the Ayers Town site. Both rail lines were established in the late 1880s and served to stimulate local industry as well as provide passenger transportation through the region.

The earlier line was part of the Chester, Greenwood, and Abbeville Railroad, which was chartered in 1885 to provide rail service between Monroe, North Carolina, and Atlanta, Georgia. In 1887, it was reorganized as the Georgia, Carolina, and Northern Railroad, which was owned by the Seaboard and Roanoke Railroad. The section between Monroe and Catawba Junction, with a stop at Osceola, was completed and in operation by 1888, and an additional stop was added at Van Wyck in 1889 (Lewis 2012). The trestle crossing Catawba River was built just below the mouth of Twelvemile Creek, about 100 meters south of the Ashe Ferry site (38YK533) and about 900 meters southeast of Ayers Town (38YK534). In 1892 the line was completed between Monroe and Atlanta, and this permitted the establishment in 1906 by W. N. Ashe of a brick works at Van Wyck, which operated for about 100 years. The Georgia, Carolina, and Northern Railroad merged with the Seaboard Air Line Railway in 1900, and by 1916, it comprised a majority of the main Seaboard line which ran from Wilmington, North Carolina, to Birmingham, Alabama. The Seaboard Air Line Railway was re-organized in 1946 as the Seaboard Air Line Railroad, and in 1967 merged with the Atlantic Coast Line Railroad to become the Seaboard Coast Line Railroad. In 1986 it became part of CSX Transportation, Inc.

Two events were particularly significant in the railroad's history. The first occurred during the early hours of September 9, 1904, when sabotage of the tracks at a bridge just south of the Catawba River trestle led to the wreck of a passenger train of the Seaboard Air Line Railroad.

According to a report by the Associated Press (1904), "The train, consisting of an American car, a mail car, two day coaches and a Pullman sleeper, crashed down an embankment as it cleared the sinking trestle. A light engine and caboose following the train smashed into the debris and plowed through a coach, dealing death to four passengers and injuries to thirty-five others." An investigator "found some spikes and bolts and two angle bars which had been removed from the track with claw bars, and he said he was confident that criminal work had been done. He expressed his belief that someone had disconnected the joints in the lower half of the bridge." The following year, a member of a gang responsible for the sabotage was arrested in Waxhaw and confessed to the crime (Washington Post 1905).

The second event occurred in July, 1916, and was a natural disaster. The Catawba River valley has a long history of significant flooding, and following massive deforestation of the southern Appalachians by the logging industry in the late 1800s and early 1900s, severe flood events became progressively more frequent and severe. This was compounded by the common practice of not removing all cut timber during clearing for reservoir construction along the upper reaches of the river. During the first two decades of the twentieth century, at least four separate floods—in 1901, 1912, 1916, and 1919—caused major disruptions to rail service traversing the valley and destroyed numerous mills and other structures built along the river (Atlanta Constitution 1901a, 1912, 1916, 1919; Southern Railway Company 1917). Some of these, such as the 1901 flood, had dramatic consequences. During this flood, the Cliff Hotel, a newly-constructed but not-yet-operating summer resort on the Carolina and Northwestern Railroad and located along Catawba River near Hickory, was swept off its foundations and washed downstream. According to reports, "Fortunately no one was in the hotel. Today half the building was seen in the river near Chester, 135 miles from Hickory. The Catawba washed away the Southern and Seaboard bridges" (Atlanta Constitution 1901b).

The most epic of these flood events, however, occurred in July, 1916, when two successive tropical cyclones, later determined to be Category 4 hurricanes, dropped unprecedented amounts of rain on the southern Appalachian Mountains and the eastern flank of the Blue Ridge (Southern Railway 1917:7–9). This caused massive flooding along the entire Catawba-Wateree drainage. The main Southern Railway bridge at Belmont, which had been weighted down with loaded boxcars along its dual tracks to prevent it from being floated off the piers, was swept away with the loss of more than a dozen lives. The Lake Wylie dam also was overwhelmed, and all other bridges along the Catawba, including the Seaboard Air Line trestle between Van Wyck and Catawba Junction and the nearby Southern Rail Line trestle, were destroyed (Southern Railway 1917:93). Many passengers were stranded for more than a week, and trains had to be re-routed throughout the Carolinas.

Bridges of the Southern and Seaboard railroads over the Catawba River having been swept away by floods in the Carolinas, the two roads announced yesterday that all direct train communications from Atlanta to the flood swept area ... have been discontinued, and that there is no sign of relief for several days.... Seaboard Air Line trains [which pass through Catawba Junction] are being turned from the main lines at Hamlet, N. C., and sent by Columbia, S. C., from Atlanta. [Atlanta Constitution 1916]

Both the Seaboard Air Line and the Southern Rail Line were equipped in handling these disasters, given their experience with previous floods, and astonishingly, normal rail service was restored in a matter of weeks rather than months.

The other rail line passing through Catawba Junction began as the Charleston, Cincinnati, and Chicago Railroad, also known as the 3-Cs or Triple Cs Line. It was organized in 1886 to

create a rail line from the coal fields in eastern Kentucky to Charleston. The section of the railroad between Rutherfordton and Camden, and passing through Rock Hill, Catawba Junction, and Lancaster, was completed by 1888 (Lewis 2012). Its trestle across Catawba River was built 2.1 miles (3.4 km) below the mouth of Twelvemile Creek and about 1,000 meters below Cureton's Ferry (USDA 1905). Following financial troubles, the railroad was re-incorporated in 1893 as the Ohio River and Charleston Railroad; in 1902 it was re-organized as the South and Western Railroad. As part of this re-organization, the rail system in South Carolina was sold. By 1905 it had been acquired by the Southern Rail Line, later Southern Railway, which eventually merged with Norfolk & Western in 1982 to form Norfolk Southern. The line is labeled on the 1905 soil map of York County as "Southern Ry" (USDA 1905).

The destruction of the Southern Rail Way trestle by the 1916 flood was well documented by the company and illustrates both the magnitude of damage caused by this event and the rapidity by which the washed-out trestles were restored (Southern Railway 1917).

The Howe truss bridge across the Catawba River, two miles east of Catawba Junction, S. C., was washed away at 9:40 a.m., July 17th. This structure consisted of three spans with a total length of 524 feet, with a trestle approach at the east end 137 feet long and a trestle approach at the west end 200 feet long. The base of the rail was fifty-four feet above the normal water level. The bridge was carried away by being floated off the piers and abutments, carrying the deck and rail, and not even overturning the water barrels used for fire protection. It was broken up on islands and rapids four or five miles below the crossing, and little of the material was recovered. The trestle approaches and about 400 feet of a long forty-foot embankment west of the bridge were also washed out, making the break to be filled by a temporary pile frame bridge 1,333 feet long. [Southern Railway 1917:101–102]

While passenger service was restored two weeks later by ferrying passengers across the river, Southern Railway did not begin the task of bridge replacement until August 7. And, within less than a month, the first train was able to cross a temporary bridge. Ultimately, this structure was replaced by a much longer steel bridge comprised of nine spans resting upon concrete piers (Southern Railway 1917:102).

Ayers Town Property History

Following the Treaty of Nation Ford in 1840, a tract of land encompassing the Ayers Town site and containing 430 acres was platted for Benjamin Sykes Massey by surveyor James D. McElwain (York County Register of Deeds 1843; also see Figure 1.10). This tract ran north from near the old reservation boundary to Sixmile Creek and was bounded (south to north) by tracts deeded to Thomas H. Cureton, Kelsey, Charles Poag, and W. B. Dunlap. Less than a year before the treaty, Massey had leased a 539-acre tract from the Catawba Nation on the opposite of the river; however, there is no surviving evidence that he also leased lands on the west side of the river at that time. This Lancaster County tract also was surveyed by James McElwain on November 16, 1843. It is presumed, but cannot be demonstrated, that Massey was the first owner of the Ayers Town tract following the treaty. Massey maintained his residence in Lancaster County throughout his life, and there is no evidence for residential occupation of the Avers Town property during his tenure. When Massey died in 1854, his holdings passed to his son, L. H. (Lycurgus Herschel) Massey. L. H. Massey, who lived north of the property near present-day Catawba, South Carolina, held the tract until 1872. Massey fell into bankruptcy as a result of losses suffered during the Civil War and ensuing economic collapse in the South, and in 1872 was forced to liquidate his real estate holdings to pay debts. W. B. Metts, the court
assignee in Massey's bankruptcy, sold 300 acres, including the Ayers Town site, at public auction in 1872 to Massey's niece, C. A. (Charlotte Addie) White and her husband, Dr. W. J. White (York County Register of Deeds 1872).

The Whites held the property until 1909. At that time, C. A. White sold the 300-acre tract to Rock Hill entrepreneurs S. N. Sowell and J. L Sowell (York County Register of Deeds 1909). The Sowells, who operated the Sowell Brick Company, merged that business with William Nelson Ashe's brickmaking companies (the Rock Hill SC Brick Works and the Catawba River Brick Works at Van Wyck) in February 1910 to form The Catawba Press Brick Company (South Carolina Secretary of State 1911:76). The Sowells then sold their private interests in the Ayers Town site property to the Catawba Press Brick Company in 1913 (York County Register of Deeds 1913).

The Catawba Press Brick Company operations were largely limited to a plant at Van Wyck on the east side of the river, and the former White property appears to have remained in agricultural use. When the company went into receivership in 1917, William N. Ashe purchased full ownership of the tract that included the Ayers Town site (York County Register of Deeds 1917). Ashe, whose holdings also included the property on the opposite side of the river, established Ashe Ferry in 1927 to link his properties and facilitate travel to his Ashe Brick Company plant (est. 1906) in nearby Van Wyck.

Upon W. N. Ashe's death in 1932, the Ayers Town site property passed in estate to his sister, Elizabeth Ashe Moore, and devolved into trust with her death in 1966. Operation of Ashe Ferry, whose western approach road passed along the southern edge of the site, continued throughout much of Elizabeth Ashe Moore's tenure. The state of South Carolina assumed operation of Ashe Ferry in 1942, and employed Early Brown, a Catawba Indian ferryman who had once run Cureton Ferry, to manage the crossing on SC State Route 504. Brown resided in a house on the west bank of the river and on the north side of Highway 504, about 500 meters east of Ayers Town. Brown, with assistance from his relatives, continued to operate Ashe Ferry until 1959, when the state constructed SC Highway 5 and a new bridge across the Catawba River that obviated the ferry.

The Ayers Town site tract passed into trust after the deaths of Elizabeth Ashe Moore (d. 1966) and her son, James M. Moore (d. 1975). The heirs, as substitute trustees, deeded the land to the Ashe Brick Company, Inc. in 1985 (York County Register of Deeds 1985), then filed a quitclaim deed on the property in 1987 as Ashe Farms, Inc., following the 1986 sale of Ashe Brick Company to Boral Industries (York County Register of Deeds 1987). Ashe Farms, Inc. sold the Ayers Town site property to Calhoun Newsprint Company (a division of Bowater Incorporated) in 1993 (York County Register of Deeds 1993); the property was retitled to Bowater Incorporated in 1996 (York County Register of Deeds 1996). The South Carolina Department of Transportation acquired right-of-way for the current bridge replacement project from Bowater in 2009, setting the stage for the 2010–2011 archaeological investigations.

Chapter 2

HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

When John Lawson traversed the Carolina piedmont in 1701, he witnessed a region barely known to Europeans, yet already profoundly transformed by the European presence on the continent. The young Englishman found much of the country emptied by "the Small-Pox [which] has destroy'd many thousands of these Natives" (Lawson 1709:10). The survivors were scourged by the well-armed "*Sinnagers* ...a Sort of People that range several thousands of Miles, making all Prey they lay their Hands on" (Lawson 1709:47). Lawson encountered a jumble of displaced communities, and observed that "every dozen Miles, you meet with an Indian Town, that is quite different from the others you last parted" (Lawson 1709:225). Many of these were coalescent communities of disparate peoples who banded together for mutual protection from the Iroquois raiders. Only in the lower Catawba River Valley did Lawson witness thriving, seemingly intact native communities organized in multi-settlement polities. Here, Lawson visited the "*Esaw Indians*, a very large Nation containing many thousand People" and passed through a "great many Towns, and Settlements, that belong to the *Sugeree-Indians*" before arriving at the Kadapaus (Lawson 1709:40, 43). Beyond the Kadapaus, the landscape was again depopulated and disordered.

Over the next two decades, Lawson's "powerful Nation of *Esaws*" gave rise to the Catawba Nation. As a safe haven in the chaotic piedmont, the ascendant Catawbas sheltered a multitude of "broken nations" decimated by disease, slaving, and warfare. The Catawbas led this coalition to successfully negotiate the early colonial "shatter zone," to withstand the onslaught of European settlement, and, eventually, to accommodate Anglo-American hegemony.

The first Catawba-European encounters, involving Spanish explorers and conquistadors rather than English explorers and traders, were brief and occurred more than 150 years before John Lawson's epic journey and more than a century before Virginians first made their way down the Great Trading Path from Fort Henry to the Catawba valley. Reconstructions of early Spanish explorations into the Carolinas have placed the native town of Chalaque, visited by Hernando de Soto in 1540, and the towns of Tagaya the Lesser, Gueca, Aracuchi, and Yssa, visited by Juan Pardo during two expeditions between 1566 and 1568, within the lower Catawba drainage and upriver from the sixteenth-century political center of Cofitachequi (Hudson 1990:23-35; Hudson et al. 1984:73). While none of these Catawba valley towns has been identified archaeologically, investigations at the Berry site (31Bk22) near Morganton, North Carolina, have provided convincing evidence that it represents the native town of Joara, where Pardo established and garrisoned a fort — Fort San Juan — in 1567 (Beck et al. 2006; Levy et al. 1990; Moore 2002). The Berry site is located on the headwaters of the Catawba drainage, more than 120 miles (193 km) upriver from Nation Ford where Lawson found the Catawbas; and the cultural-historical relationship of the sixteenth-century Joarans to late seventeenth and eighteenth-century Catawbas is uncertain.

Until the late twentieth century, archaeological interest in the Catawba homeland — the area along Catawba River and its tributaries in York and northern Lancaster counties, South Carolina

— was largely speculative and sporadic. Limited archaeological reconnaissance, beginning in the 1930s, identified important sites such as New Town (Baker 1935) and Spratt's Bottom (Wauchope 1940), and other sites were brought to public attention as a result of soil erosion from flooding and as a consequence of looting by artifact collectors; however, most of these sites were not systematically sampled or documented. While more recent compliance-related surveys, employing professional standards of site discovery and data collection, have added greatly to the overall inventory of archaeological sites in this area, these projects have only rarely contributed directly to our understanding of Catawba archaeology in the historic era (see Green 2007; Legacy Research Associates 2009).

The first systematic attempt to assess the archaeological resources of the Catawba homeland did not occur until the 1970s, when Steven Baker of the University of South Carolina undertook an ambitious study to construct an ethnohistorical overview for guiding future archaeological research on the historic Catawba Nation (Baker 1975). With his research sponsored by Duke Power Company, Baker sought to produce a report that could be used to identify, protect, study, and preserve the fragile Catawba archaeological record of the historic era. In it, he attempted to locate Catawba towns that were depicted on historical maps — particularly the 1756 John Evans map and the 1764 Samuel Wyly map — and also predict the locations of other major eighteenth-century towns. His study was both important and timely given the looming threat of urban expansion in and around Fort Mill and Rock Hill, and along Charlotte's southern margin. Unfortunately, subsequent archaeological research did not keep pace with the region's economic development. In the years following Baker's study, the archaeological resources of York and Lancaster counties became increasingly threatened, and many important sites were destroyed by the construction of golf courses, new homes, and apartment complexes, commercial development, and even the mining of clay to provide bricks for those projects.

Over the past 20 years, two long-term projects have focused on the historic Catawba archaeological record. Beginning in the 1990s, archaeologists with the Catawba Cultural Preservation Project, the Schiele Museum, and the University of North Carolina at Charlotte collaborated on several field projects, including a survey to identify archaeological resources on the Catawba Reservation, test excavations at various sites, and more extensive excavations at the Spratt's Bottom site (May and Tippitt 2000).

In 2001, staff and students from the Research Laboratories of Archaeology at the University of North Carolina at Chapel Hill also began a long-term program of archaeological research to understand better the emergence and endurance of the Catawba Nation through the eighteenth and early nineteenth centuries (Davis and Riggs 2004). To date, this project has investigated: the mid-eighteenth-century sites of Nassaw, Weyapee, and Charraw Town; the late eighteenth-century sites of Old Town and Ayers Town, the subject of this report; and the early nineteenth-century sites of New Town and Turkeyhead, represented archaeologically as the Bowers site. Limited testing also was undertaken in 2011 at Spratt's Bottom (Table 2.1). These site excavations and surveys have necessitated a re-evaluation of Baker's (1975:114) town location model, particularly as it relates to those Catawba settlements shown on the Evans map.

Several known historic Catawba sites have not been investigated for various reasons. In York County, two mid-eighteenth century sites located above Nation Ford have been identified during surveys by UNC archaeologists. These sites correspond to the locations of Weyane and Sucah depicted on the 1756 John Evans map, but both have been severely disturbed by previous land uses, and their research potential is considered limited. The site of the contemporary town

Site Name	Site Designation	Dates	Reference(s)
Bowers (Turkeyhead)	38LA483	1800 to 1820s	Davis and Riggs 2004; Edwards 2006
New Town	RLA-SoC 632/635	1790 to 1820	Davis and Riggs 2004; Shebalin 2011;
			Plane 2012
Ayers Town	38YK534	1781 to 1800	this report
Old Town	RLA-SoC 634	1761 to 1800	Davis and Riggs 2004; Davis et al. n.d.
Nassaw-Weyapee	38YK434	1750 to 1759	Fitts et al. 2007
Charraw Town	38YK17	1750 to 1759	this report
Spratt's Bottom	38YK3	1700 to 1750	May and Tippitt 2000
Belk Farm	31Mk85	late 17th century	Wilson 1983

Table 2.1. Historic Catawba Sites That Have Been Archaeologically Investigated.

of Noostee, located nearby, has not yet been identified. These three villages, along with Charraw Town, Weyapee, and Nassaw, comprised the Catawba Nation at the beginning of the French and Indian War. Another small site (38YK435), possibly occupied the same time as those identified by Evans but not shown on his map, was recorded during archaeological surveys in 2007 of the Museum of York County property (Green 2007).

Residential and commercial development in the Fort Mill area also has taken its toll on Catawba heritage resources. The Catawba settlement of Sugar Town, occupied before 1760, is thought to have been destroyed by commercial development of the PTL Club's Heritage USA complex in the 1970s. Other eighteenth-century Catawba sites now destroyed by housing developments have been identified along Sugar Creek and adjacent to Old Nation Ford Road which followed the earlier Catawba Trading Path. Still other historic Catawba sites likely were destroyed by the recent expansion of residential development along Johnnytown Branch.

Two additional, important Catawba sites are located in northern Lancaster County. The first of these is the site of the South Carolina fort and adjacent Catawba town depicted in the 1764 Wyly map. Part of this site has been eradicated by clay mining for the nearby Ashe/Boral brick plant (now defunct); however, archaeological surveys indicate that part of the site may still be intact. Between this site and the Old Town site lie the remains of a second Catawba town, depicted on Henry Mouzon's map of 1775 and burned by British troops during the summer of 1780. The location of this town has not been confirmed through archaeological reconnaissance, but it appears to have been situated in close proximity to the Nisbet Bottoms, an important clay source for Catawba potters since the 1760s.

In this chapter, we explore material and documentary evidence of Catawba history and settlement in the lower Catawba River valley from the late seventeenth through early nineteenth centuries, providing a context for interpreting the archaeological site of Ayers Town. For convenience of discussion, we segment this span into the following temporal blocks that reflect major trends in the Catawbas' historical experience (Early English Contact Period, 1676–1715; Coalescent Period, 1716–1759; Late Colonial Period, 1760–1775; Revolutionary War Period, 1776–1781; and Federal Period, 1782–1820).

Early English Contact Period (1676–1715)

Ethnohistorical Context

Sustained contact by Europeans with native groups in the Catawba River valley began around 1676 with the establishment of regular, direct trade with Virginia. Contacts from Virginia may have slightly preceded the opening of the trade, as John Lederer (1672) claimed to have visited the Usherees (a gloss for the Esaw-Catawba-Sugaree groups) in 1670, and James Needham and Gabriel Arthur passed through Sittaree (another gloss for Sugaree) in 1673 (Wood 1674).

These early travelers hint at the spread of a chaotic "shatter zone" throughout the piedmont region during this period. By 1676, the region became heavily militarized and intergroup conflict appears to have become both chronic and acute, a situation particularly exacerbated by the Occaneechis' collapse as middlemen in the Virginia trade and the emerging trade in Indian slaves sponsored by Virginia and South Carolina (Davis and Ward 2003; Gallay 2003). Population collapse in the piedmont was sparked by the successive waves of Old World diseases from European settlements; losses to epidemics were compounded by losses to increased warfare and large-scale slaving. Northern refugees displaced by the Iroquois wars menaced piedmont groups, who in turn shifted their settlements southward in a domino effect that spread to the Savannah. Seneca raiders turned their attentions to Virginia and the Carolinas as the wars in the Great Lakes drew to a close, and pushed more refugee movements through the piedmont.

The Catawba-Esaw-Sugaree countered the growing chaos in a number of ways. Documentary and archaeological evidence hint at a major contraction of settlement in the lower Catawba Valley, with Catawba-Esaw-Sugaree concentrating their towns in a more defensible position near the Virginia Trading Path. This position provided better access to the Virginia trade, and higher settlement density, together with firearms supplied by the Virginia traders, enabled the Catawba-Esaw-Sugaree to effectively resist Westo and Seneca raiding and other threats. The "Esaughs" also entered into a strategic alliance with South Carolina in 1674 to fight the Westoes, an agreement that may have secured an additional source of crucial firearms for the Catawba-Esaw-Sugaree (Salley 1907:64). This alliance, which remained constant through much of the next century, was key to Catawba survival, and Catawba leadership came to be predicated on management of this relationship. During this early period, South Carolina armed the Catawbas to police Savannah "deserters," fend off attack by French and Spanish allied groups, and to join sponsored expeditions against the Tuscaroras and others.

By the 1690s, the Catawbas were pre-eminent in the Piedmont and began to expand their reach by dabbling in the slave trade. The developing Catawba power bloc also began to draw weaker nations into its orbit, and the Virginians and Carolinians ascribed governance of these groups to the Catawbas. Lawson (1709:30–33) found the Waterees (originally from the northern piedmont) resettled on the lower Catawba; within five years, the Saura had also moved southward to the Pee Dee River to escape Iroquois raids (Byrd 1841:112).

Archaeological Evidence

Archaeological evidence for the Catawba-Esaw-Sugaree during the early English Contact Period is scanty. Limited excavations during the 1960s at Belk Farm (31Mk85) in Mecklenburg County, North Carolina, identified an English Contact Period component that yielded complicated stamped, cordmarked, plain, and corncob-impressed ceramics along with glass beads, a button, a brass bangle, and a peach pit (Riggs 2010; Wilson 1983). Surveys by UNC archaeologists along Sugar Creek in York County, South Carolina, have located probable Early English Contact period hamlets, communities that may correspond to Lawson's "great many Towns, and Settlements, that belong to the *Sugeree-Indians*." Farther afield, the archaeological records of other seventeenth and early eighteenth-century piedmont groups attest population collapse and the spread of chaotic "shatter zone" conditions (Davis 2002). At Madison Cemetery (31Rk1), Upper Sauratown (31Sk1a), the William Kluttz site (31Sk6), and the Fredricks site (31Or231), dense cemeteries indicate highly accelerated population loss (Davis et al. 2003; Eastman 1999; Ward and Davis 1993). Many of these late seventeenth and early eighteenth-century occupations appear to have been brief, perhaps indicative of heightened settlement mobility.

Coalescent Period (1716–1759)

Ethnohistorical Context

The Early English Contact period terminates with the Yamassee War of 1715, an episode that radically transformed the native Southeast. Native anxiety over Carolina's trading practices and the growing threat of the metastasizing slave trade erupted at Yamassee Pocotaligo Town, and quickly spread among the nations that earlier had aided South Carolina against the Tuscaroras. The Catawbas and their affiliates initially joined the fight against Carolina, but military losses led these combined "northward Indians" to suspend their campaign, and the Catawbas sued for peace through Virginia mediation. In return for resumption of normal relations, Carolina required the Catawba coalition to subdue other "Northwards" and supplied the Catawbas for policing the hostiles. Ironically, the Yamassee War fixed the Catawbas as the authority of the piedmont tribes, and Carolina looked to the Catawbas to regulate a host of peoples (Brown 1966:138–156; Merrell 1989:103).

During the ensuing Coalescent Period, Carolina followed Virginia's lead and vested native political authority with the Catawbas, creating a privileged trading status to cement Catawba alliance. With this European imprimatur, the Catawba nation became a military, political, and economic magnet that drew disparate peoples from across the piedmont and beyond. As illustrated by a Catawba headman's 1721 deerskin map, the Catawba nation (indicated by Nassaw) was the hub that linked Charles Town and Virginia to the Wateries, Wasmisas, Casuies, Nusties, Charras, Youchines, Wiapes, Suttires, Succas, and Saxippaha (Figure 2.1). Other groups that came under the Catawba aegis included Pedees, Enos, Shakoris, Keyauwees, Cape Fears, Congarees, and sporatically, the Saponis. Some of these groups relocated to the Catawbas, while others residing as much as 100 miles away became part of the confederacy that scholars call the "Greater Catawba Nation." As early as 1717, a Shawnee leader noted that the Catawbas included "many Nations under that Name" (Pennsylvania Provincial Council 1852:23). James Adair observed that, in 1743, "their nation consisted of almost 400 warriors, of above twenty different dialects" (Williams 1930:235-236). By gathering and incorporating such allies, the Catawba leadership stanched the continuous attrition by disease and warfare that plagued most southeastern groups. These allied personnel served South Carolina's strategic interests, guarding the colony's northern flank against incursions from French allied natives, and



Figure 2.1. Deerskin map presented to South Carolina Governor Francis Nicholson by a Catawba headman in 1721 (see Waselkov 1989:297).

forming "an excellent barrier to this Province" (Merrell 1989:144). This guardian role guaranteed both targeted trade and diplomatic gifts that brought crucial goods to the nation — particularly essential firearms and ammunition. The alliance with Carolina enabled the Catawba Nation to build and maintain its military potency; by 1750, the nation prosecuted simultaneous wars against at least 11 other native nations. Conflict with the northern Iroquois was especially ferocious during this period.

The influx of Ulster Scots settlers into traditional Catawba territory around 1750 opened a new frontier of interaction and conflict. These emigrants flooded down the Great Wagon Road, establishing farmsteads and communities within 30 miles of the Catawba towns. Catawba leaders leveraged their strategic alliance with South Carolina to regulate these new Europeans, even obtaining payments to offset intrusions upon Catawba hunting grounds and losses of Catawba horses to Scots thieves. Nevertheless, Catawba relationships with these troublesome neighbors remained uneasy and tenuous throughout the decade.

Hostilities with the northern tribes accelerated in 1753, and by the outbreak of the Seven Years War, Catawba warriors were constantly afield on the behalf of South Carolina and Virginia. During this era, the colonies were desperate for allies to stem the Shawnee raids on their back settlements, and outfitted the Catawba war parties as never before. When crop failures and famine struck during the conflict, South Carolina provided cattle and corn to the Catawba towns. Although Catawba warriors were able to parlay their roles as "ethnic soldiers" into relative economic success for their communities, their participation in the war came at a terrible price. Catawba men returning from the Quebec campaign in the fall of 1759 brought smallpox into the nation. Over the next few months, "the smallpox …raged with great violence among the Catawba Indians, and … carried off near one half of that nation" (Brown 1966:181). The survivors of the epidemic fled their towns and regrouped under English protection at present-day Camden, South Carolina. Yet even in this broken condition, Catawba warriors, who sensed a new degree of dependence upon the English, sent warriors on British expeditions against the Cherokees.

Archaeological Evidence

Coalescent Period occupations are well documented near the Catawba River around Fort Mill, South Carolina. Archaeological surveys along the route of the Trading Path have identified outlying village sites in upland settings, marked by diverse arrays of ceramics and abundant period trade goods. These sites, miles from the Catawba core at Nation Ford, may represent the influx of new communities into the area after the Yamassee War.

The most conspicuous archaeological site in the Fort Mill vicinity is Spratt's Bottom (38YK3), situated on an elevated alluvial terrace just upriver from Nation Ford (Figure 2.2). This large, multi-component site was the focus of excavations by avocational archaeologists in the 1970s (Archie and Archie 1977) and was scientifically investigated between 1991 and 1993 by archaeologists and students from the Schiele Museum, UNC-Charlotte, and the Catawba Cultural Center, who identified evidence of an historic Catawba settlement, as well as earlier Mississippian, Woodland, and Archaic cultural components (May and Tippitt 2000). Ceramic artifacts and European trade artifacts, particularly glass beads and kaolin pipe fragments, indicate that the historic Catawba component likely dates to the first half of the eighteenth century, and may predate the towns shown on the Evans map by less than a decade. The Evans map does not locate a town at Spratt's Bottom, even though towns are shown both above and below the bottoms, and this indicates strongly that the settlement represented by the Spratt's Bottom site had been abandoned by 1756. It is possible that the site represents the community of Nasaw shown on the 1721 deerskin map.

Archaeological surveys have also identified the mid-eighteenth century sites of Charraw Town, Weyane, Sucah, Nassaw, and Weyapee depicted on the 1756 Evans map (Figure 2.3). These towns are all located within a two-mile radius; Evans attributed the Catawbas' potency to their ability to assemble their full force within two hours. The upland village sites occupy relatively small areas, with dense, compact distributions indicative of nucleated settlements. Evans' map depicts such close-ordered towns; a 1757 account refers to Charraw as a palisaded "round town" (Richardson 1758). These town configurations reflect the acute defensive posture of the Catawba nation during this violent era.

Nassaw and Weyapee (c. 1750–1759). Nassaw and Weyapee are paired towns whose histories are linked from at least the early 1720s until 1759. They are depicted on the 1721 deerskin map (Waselkov 1989:297), and they also are shown together on the Evans map, which places their collective warrior strength at 50 men (Merrell 1989:163) (Figures 2.1, 2.2, and 2.3). The inhabitants of Nassaw likely derive from the Esaw tribe referenced by John Lawson in 1701 and shown on the earliest maps of the Catawba valley. Both towns were abandoned in the wake



Figure 2.2. Map of the Catawba project area showing eighteenth and early nineteenth-century Catawba sites that have been investigated through archaeological excavation.

of the 1759 smallpox epidemic, during which up to two-thirds of the towns' inhabitants may have perished (McReynolds 2004).

The archaeological site of Nassaw-Weyapee (38YK434)—the communities depicted on Evans' map—was discovered in 2005 along an upland ridge on the east side of Catawba River near Fort Mill, South Carolina. It was surveyed in 2007 and excavated by the UNC field school in 2007 and 2008 (Fitts et al. 2007). The site lies on property that was donated to York County and was the location of a planned mixed-use development called Kanawha involving Cherokee LLC, the county, and the Museum of York County. Annette Snapp, an archaeologist with the museum, had identified two potential eighteenth-century sites along a transmission line right-of-way within the proposed project area, and Cherokee LLC contracted with UNC to determine the



Figure 2.3. Map drawn by John Evans in 1756, depicting the Catawba Towns at Nation Ford (from Merrell 1989:163).

extent and significance of those sites. The remainder of the approximately 400-acre project area was surveyed by archaeologists with S&ME, Inc. (Green 2007).

Systematic metal detector survey at one of these sites, 38YK434, recovered almost 2,000 mid-eighteenth-century brass, iron, lead, glass, and ceramic artifacts within two spatial clusters



Figure 2.4. Map of Nassaw-Weyapee, showing areas of metal detector survey and piece-plot locations of mideighteenth century artifacts. Contour interval = 1 ft.

separated by a small drainage, and also identified several pit features (Figure 2.4). The southern artifact cluster, lying within the heavily eroded transmission line corridor, represents a small settlement covering about 0.3 hectares and has been interpreted as the probable location of Weyapee. Excavation of 11 one-meter units and flatshoveling of the eroded ground surface revealed a corncob-filled smudge pit and a cluster of five storage pits likely representing a single



Figure 2.5. Map of Nassaw-Weyapee showing site boundaries as defined by metal detecting and areas excavated by hand and mechanically stripped in 2007 and 2008.

house (Figure 2.5). One of these pits contained an iron dirk, or short sword, and all contained fragments of broken complicated-stamped pottery vessels.

To the north of the drainage, a far greater number of artifacts were identified within a large oval area covering about 0.7 hectares. This is interpreted as the archaeological remains of Nassaw. The tight distribution of artifacts here and descriptions of other Catawba towns of the



Figure 2.6. Plan of excavation block at Nassaw showing posthole pattern of a rectangular house and associated pit features.

French-and-Indian War period suggest that Nassaw likely was surrounded by a palisade, though trenches excavated at two separate locations along the site edge did not reveal a palisade post line. While the spatial distribution of metal-detected artifacts ended abruptly along the east, south, and west edges of the site, a light scatter of material continued along the broad ridgeline to the north. Hand excavation of 353 one-meter units and mechanical stripping of a 2,000 sq meter area (north of the main site area) revealed 23 refuse-filled storage and other pits, 27 cob-filled smudge pits, three soil borrow pits, more than 120 postholes, and seven probable graves which were mapped but not excavated (Figure 2.5). The 20 excavated storage pits occur in six clusters attributable to separate households. Excavations in 2008 at one of these house areas revealed a rectangular pattern of posts encompassing nine storage pits and a probable grave (Figure 2.6).

Excavations at Nassaw and Weyapee recovered more than 47,000 artifacts, including over 26,000 potsherds, 18,000 glass beads, 1,000 English kaolin pipe fragments, and 120 gun parts and pieces of ammunition (Figures 2.7 to 2.10). The relative abundance and diversity of commercially manufactured goods at Nassaw is considerably greater than that documented at contemporaneous Cherokee sites, reflecting the Catawbas' privileged trading status and their strategic alliance with Carolina. Especially noteworthy are numerous gunparts and sword fragments, artifacts that attest the importance and abundance of European-made weaponry in Catawba villages, and which are consistent with the Catawbas' militaristic stance and their role as "ethnic soldiers" for the English. The potsherd assemblage is attributed to the Cowans Ford series and represents: (1) globular jars with punctated rimstrips and curvilinear-stamped, smoothed, cord-marked, and cob-impressed exteriors; and (2) plain carinated bowls with



Figure 2.7. Gun parts recovered from Nassaw-Weyapee.



Figure 2.8. Stone, clay, and English clay tobacco pipes from Nassaw-Weyapee.



Figure 2.9. Glass bead types represented at Nassaw-Weyapee (type designations follow Kidd and Kidd 1970).



Figure 2.10. Globular jar rims with folded and punctated rim treatments (top and middle rows) and carinated bowl rims with incised decoration (bottom row) from Nassaw-Weyapee.



Figure 2.11. Aerial view of Charraw Town, showing locations of 2011 archaeological excavations (in red).

fineline-incised decorations (Riggs 2010). Subsistence remains reflect a broad-based subsistence pattern that incorporated European domesticated animals and include white-tailed deer, black bear, squirrel, skunk, box turtle, cow, and pig. The moderately low density of artifacts and lack of superpositioning among features suggest that the towns were occupied for less than a decade. A pipestem date of 1762 for the site, based on 459 kaolin pipestems, actually postdates by two years the known time of abandonment, and is viewed as supporting evidence for a relatively brief occupation span.

Charraw Town (c. 1750–1759). Charraw Town (38YK17) was a settlement of the Charraw, or Sara, who immigrated to the Catawba shortly after the Yamassee War of 1715–1717 (Figure 2.11). The town appears to have been established no earlier than the 1740s, and perhaps later, and it too was abandoned in the wake of the 1759 smallpox epidemic. Charraw Town appears as the largest of the six towns on Evans' map, with 56 men "fit for war," and in 1758 was visited by the Reverend William Richardson who described it simply as "built Circular" and presumably



Figure 2.12. Metal artifacts recovered at Charraw Town.

fortified (Richardson 1758) (see Figures 2.2 and 2.3). The town was located along a trail that branched off of the Great Trading Path north of Nation Ford and is situated on a broad ridge between Moore's Branch and one of its tributaries, about four kilometers east of Nassaw-Weyapee.

Archaeological investigations at Charraw Town were undertaken by the UNC field school in 2011. Much of the site was inaccessible due to the presence of a hayfield and private residence, and thus the excavations were restricted to heavily eroded and terraced pastureland along the site's periphery. Despite these less-than-favorable conditions, an analytically significant sample of more than 12,000 artifacts and subsistence remains were recovered from six probable sub-floor storage pits, a refuse-filled gully, and a buried midden. Another 10,000 artifacts were recovered from plow-disturbed and eroded topsoil. The overall artifact assemblage from Charraw Town, including the kinds and proportions of European-manufactured artifacts, is similar in composition to that found at Nassaw-Weyapee; analysis of the pottery sample is currently underway by Mary Beth Fitts to determine how it compares in terms of style and function, and what those similarities and differences might suggest about the broader Catawba community during this period.



Figure 2.13. Rim and body sherds from Charraw Town.



Figure 2.14. Glass bead types represented at Charraw Town (type designations follow Kidd and Kidd 1970).

Two areas of the site were investigated, with other test units excavated in between. At the southwest edge of the site, two adjacent blocks totaling 42 sq meters sampled a buried midden that extended up to 45 cm below surface. This midden produced potsherds, glass beads, gun parts, kaolin pipe fragments, bottle glass, brass kettle fragments, and small quantities of poorly preserved faunal remains (Figures 2.12 to 2.14).

Another block of 59 one-meter squares was excavated along the eastern margin of the site. Although the soils here were relatively shallow due to erosion, artifact density was higher and the bottoms of four storage pits, as well as several postholes, were identified. These pits formed a tight cluster and likely were dug into the floor of the same house. Less than two meters east of this pit cluster was a deep, refuse-filled gully. Over 5,700 artifacts, including more than 4,000 glass beads, were recovered from these features.

An analysis of glass beads from Charraw Town and Nassaw-Weyapee indicates that the assemblages are remarkably similar, as would be expected at two contemporaneous and closely related village sites. Likewise, a date of 1755 derived from 161 kaolin pipestems corresponds well with the expected period of occupation for the site.

Late Colonial Period (1760–1775)

Ethnohistorical Context

The Late Colonial period begins with the Catawba population collapse and abandonment of their old towns near Nations Ford. While approximately 300 Catawba survivors reorganized under English protection at Pine Tree Hill, Catawba leaders petitioned South Carolina for a surveyed boundary to exclude encroaching settlers and for a fort to protect their community (Anonymous 1760; McReynolds 2004:45). When the Catawbas returned to their territory in 1761, they left the exposed location at Nation Ford and formed two new settlements above Twelvemile Creek, near the Scots-Irish communities in the Waxhaws. Now, the remnants of the



Figure 2.15. Portion of Samuel Wyly's 1764 map of the newly surveyed Catawba Nation reservation, showing Catawba towns near the mouth of Twelvemile Creek and on King's Creek (known in the mid-nineteenth century as Old Town Branch).

formerly distinct tribal towns were simply called the "Catawba Town." The 1763 Treaty of Augusta confirmed the Catawba reservation, and in 1763–1764 Samuel Wyly surveyed a 14.5 mile square boundary between Catawba lands and surrounding white settlements (Brown 1966:250–251) (Figure 2.15).

With the end of the French and Indian wars, the Catawbas' role as mercenaries for South Carolina was diminished, and the nation struggled to maintain its relevance to South Carolina — the alliance so critical for trade supplies and diplomatic gifts. Catawba warriors retained some policing functions for the Carolina backcountry. When Shawnee raiders killed King Haigler and several whites in 1763, both Catawbas and white militia pursued the perpetrators. In 1774, Catawba warriors supported the Virginians in Lord Dunmore's war against the Shawnees.

However, Catawba warriors were more often relegated to catching runaway slaves and horses for the Carolinians. Other Catawbas began trading meat, hides, baskets, and pottery for goods in the local Waxhaw settlements. They even sanctioned settlement of certain white "friends" within their boundary — in return for nominal rents (Pettus 2005).

In 1772, William Moultrie visited the Catawba settlements during a survey of the South Carolina boundary. He observed:

... the people very thickly settled close to the Indian Line some of their houses almost upon it. They have an advantage that they have a fine range for their cattle, which in all probability will continue many years until the Catawba's are extinct or bought out. The Catawba Lands are a very fine body, it's a square of 14 miles, they occupy but a very small part, their Town is built up in a very closs [sic] manner and the field that they plant does not exceed 100 acres... [Davis 1942:553]

Archaeological Evidence

Catawba life during the Late Colonial Period is documented archaeologically at the Old Town site (RLA-SoC 634), located in northern Lancaster County, South Carolina. The site's name derives from Old Town Branch, a stream also known as King's Creek and Haglier's [sic] Creek, that flows along the southern edge of the site. These alternate stream names imply that this was the town where King Haigler resided just prior to his death in August, 1763 (Brown 1966:246-247). Old Town is situated on an old alluvial terrace of Catawba River about 14 km southeast of Nassaw-Weyapee and Charraw Town, and represents two sequential Catawba occupations (c. 1761–1780 and 1781–1800) during the last four decades of the 1700s. The establishment of Old Town followed the 1759 abandonment of the upriver towns and a brief sojourn at Pine Tree Hill (Camden), and is depicted as the smaller of two Catawba settlements on a plat of the newly-formed Catawba Nation reservation drawn by Samuel Wyly in 1764 (Figure 2.15). The larger town was established just northeast of the mouth of Twelvemile Creek, near archaeological site 38LA125, and in 1761 South Carolina constructed a fort at this town (Brown 1966:241–242). Unlike the earlier towns of the French-and-Indian War period, Old Town was not fortified; instead, it consisted of clusters of scattered households. And, post-in-ground-style structures like those documented at Nassaw were abandoned in favor of cribbed log houses.

Four cabin loci, including three found through systematic metal detecting, have been identified at Old Town; two of these, situated along the terrace edge about 40 m apart, were excavated by UNC field schools in 2003 and 2009 (Davis and Riggs 2004, 2009). Twenty-eight one-meter units and six features were excavated in 2003 at Locus 1; an additional 154 units and 12 features were excavated at Loci 1 and 2 in 2009 (Figures 2.16–2.18). Each locus contained evidence of multiple houses, and each house contained one or more rectangular, sub-floor cellars, as well as other peripheral pit features. At each cabin locus, artifacts from these features, and the superposition of some features, indicate sequential households separated by a brief abandonment. These sequential households represent two periods of occupation, designated Old Town I and Old Town II. Historical accounts indicate that the British army burned the Catawba settlements in July 1780, forcing Catawbas to remove to Virginia until mid-1781. This event likely correlates with the interruption of occupation at Old Town.

Ten deep, sub-floor cellar pits, five clay processing pits, a cob-filled smudge pit, a large basin, and a refuse-filled stump hole were excavated at Old Town. Four graves comprising a small cemetery at Locus 1 were mapped but not excavated. The features classified as clay



Figure 2.16. Map of the southern edge of Old Town, showing boundaries of cabin loci 1, 2, and, 3 as defined by systematic metal detecting, and areas excavated in 2003 and 2009. Contour interval = 10 cm (elevations reference an artibrary datum).



Figure 2.17. Excavation plan of Locus 1 at Old Town, showing cellar pits (Features 2, 5, 6, and 7), graves (Features 3, 8, 9, and 20), clay processing pits (Features 1 and 19), large basin (Feature 4). Smaller disturbances are possible postholes.



Figure 2.18. Excavation plan of Locus 2 at Old Town, showing cellar pits (Features 11, 12, 14, 15, and 17), clay processing pits (Features 10, 13, and 18), large basin (Feature 16), smudge pit (Feature 21), and refuse-filled stump hole (Feature 22). Smaller disturbances are possible postholes.

processing pits were shallow, circular facilities with fill consisting in part of wads or lumps of unfired potter's clay. While they appear to be associated with the preparation of clay for potting, how they functioned is unclear. All feature fill was processed by flotation or waterscreened through 1/16-inch mesh, and most of the 17,500 artifacts from Old Town were recovered from features rather than plow-disturbed topsoil. The earlier occupation of the site, designated Old Town I, is represented by four cellar pits and a clay processing pit; the later occupation, designated Old Town II, is represented by five cellar pits, a clay processing pit, the large basin, and the unexcavated graves. The temporal association of the remaining features is ambiguous.

Although Old Town dates only a decade after Nassaw, their material assemblages differ significantly. These differences are particularly apparent in native-made ceramics. In contrast to the highly traditional Nassaw wares, Old Town vessels are well-made copies of English ceramics. Plates, cups, bowls, and milkpans exhibit highly burnished surfaces; some vessels have hand-painted designs. Polished bowls with well-defined footrings and 16-sided plate rims replicate English wares in detail; some of these are executed in pale-bodied clays, perhaps emulating Staffordshire slipwares, soft-paste porcelains, and white saltglazed stonewares also recovered from early Old Town contexts. Later ceramics, when decorated, are painted along the vessel rim with a red or orange-red pigment made from purchased sealing wax (Riggs 2010:36–37; Riggs et al. 2006) (Figures 2.19 and 2.20).



Figure 2.19. Old Town I ceramics from Old Town.



Figure 2.20. Old Town I (left) and Old Town II (center and right) vessels from Old Town.

These wares signal a sea-change in Catawba potting traditions. Evidence from late Coalescent Period sites indicates that constituent groups of the Catawba Nation retained distinct potting traditions. These distinct traditions disappeared with the catastrophic collapse of the Catawba population in 1759 and its reorganization in 1760–1761, and the Old Town wares reflect the rapid emergence of a highly homogeneous style — a full-blown expression of the style commonly understood as "Catawba pottery." This radical shift coincides with the Catawbas' respite at Pine Tree Hill, where potters encountered commercial demand for earthenwares in the Carolina backcountry, and soon reoriented their production to meet the market. Making pottery to suit European tastes created a new Catawba tradition, transformed and newly homogenized — a mirror of the Catawba Nation at mid-century. With this, Catawba women assumed a new (and eventually dominant) role in the nation's commercial economy.

Other artifacts reflect apparent material prosperity, despite the nation's lessened military role and reordered economy. Firearms, still important for hunting and defense, are represented by gunparts, ammunition, and a bullet mold (Figure 2.21). These reflect adoption of robust and accurate (and expensive) colonial-made rifles to replace the fragile imported trade fusils. Four coins (the latest dating to 1769) attest growing use of specie in regular, perhaps from daily contacts with Europeans. Riding tack hardware is much more common than at Nassaw, indicating increased ownership and use of horses. Personal ornamentation, such as glass beads and silver jewelry, reflect changes in how Catawbas marked their identity, including the appearance of the triangular nose bangle, a novel ornament made from cut silver sheet and worn suspended from the nose (Figures 2.22 and 2.23). Syncretic ritual may be reflected by an English porcelain punch bowl and English and Catawba cups — a set for rum punch, a common component of English-Indian diplomatic rituals that entailed toasts to the health of the king, governor, chiefs, and headmen.

Subsistence remains from Old Town — chicken eggshell, pig and cow bones — likely indicate Catawba adoption of animal husbandry. The relatively rapid changes in Catawba subsistence practices, housing modes, transportation, ceramic production, and other daily practice may have proceeded from close-order contact with Scots Irish neighbors. The vastly outnumbered Catawbas were now faced with accommodating the permanent presence of Europeans, and may have emulated European practices to downplay differences and to smooth daily interactions.

Revolutionary War Period (1775–1781)

At the outset of the Revolutionary War period, the Catawbas followed their rabidly Whig neighbors and committed to the American cause. All able-bodied Catawba warriors served for the duration of the war, and fought on behalf of the Americans from the defense of Charleston and the Battle of Sullivan's Island in 1776 until the defeat of the British army at Yorktown in 1781 (Heath 2004:90). During the intervening years, their reservation provided sanctuary for American forces in the Carolina backcountry. In mid-1780, the advance of Cornwallis' army forced the entire nation to take refuge in Virginia (Drayton 1802:98).

Just as they had since the Westo wars, the Catawbas served South Carolina as "ethnic soldiers" to create tangible political and economic obligations on the part of the newly independent nation. By fighting alongside Thomas Sumter, William R. Davie, and other luminaries (as well as Andrew Jackson's brothers), these "Patriot Indians" astutely guaranteed



Figure 2.21. European artifacts and clay pipes from Old Town.



Figure 2.22. Glass bead types represented in Old Town I contexts at Old Town (type designations follow Kidd and Kidd 1970).

their continued rights and privileges in post-colonial South Carolina, and the newly constituted state recognized Catawba reservation lands.

The main Catawba town occupied at the time of the American Revolution has not been identified archaeologically. Two maps published on the eve of the revolution—one by James Cook in 1773 and another by Henry Mouzon in 1775—show a single Catawba town at the junction of two roads north of the mouth of Twelvemile Creek (Cook 1773; Mouzon 1775) (Figure 2.24). While the town's location traditionally has been assumed to be in the vicinity of Sixmile Church, several miles east of Catawba River, this placement appears to be contradicted by accounts of individuals who visited the town or town site shortly after it was abandoned in 1780.

Lieutenant William Feltman, an officer in the Pennsylvania Line when it marched through the Catawba reservation on December 20, 1781, wrote:



Figure 2.23. Glass bead types represented in Old Town II contexts at Old Town (type designations follow Kidd and Kidd 1970).

This morning at sunrise the troops took up the line of march. Passed through a fine level country and encamped at 12 mile creek, Indian Land, in South Carolina. 10 miles. Camden District.

Lieuts. Lodge, McKinney, Stricker, Van Court, and self took a ride about four miles from our encampment to see an Indian town of the Catawba Nation. We had a long, tedious, and disagreeable ride, and all small Indian foot-paths and thick woods to ride through. We see one of their towns, but it was only the remains of a town, which was burnt by the British. We rode on half a mile farther, when we found a very fine bottom, but all the old houses evacuated.

We see three Indians in a canoe, coming down Catawba River. We hailed them, and brought them to, and asked them several questions.

They informed us the town was half-a-mile the other side of the river. We were very desirous of seeing the town, but could not trust our horses on this side for fear they would be stolen. [Feltman 1853:31]

The Pennsylvania Line's encampment within the reservation likely was near Sixmile Church, on the high ground adjacent to where the road from Charlotte to Camden crossed Twelvemile Creek. A journey four miles southwest of this location, across the dissected western edge of Twelvemile Creek valley, would have taken Feltman's party to the suspected location of the abandoned Catawba town along the upland ridge flanking Catawba River, less than 3 km above the mouth of Twelvemile Creek. The Old Town site appears to have been at the northwestern extremity of this dispersed settlement, though the evacuated "old houses" Feltman encountered may have been just downstream from Old Town in the vicinity of Nisbet Bottoms.

Lieutenant Feltman also provides the earliest record for a Catawba settlement on the west side of Catawba River. While he didn't visit this village, Ayers Town is just over a half mile below Nisbet Bottoms and thus fits well with the Indians' description.



Figure 2.24. Portions of James Cook's (1773) *A Map of the Province of South Carolina* (left) and Henry Mouzon's (1775) *An Accurate Map of North and South Carolina, with their Indian Frontiers* (right), showing the 1763 Catawba Nation boundary and the location of the main Catawba town.

Federal Period (1782–1820)

Ethnohistorical Context

When Catawbas returned from Virginia in 1781, they established at least two separate towns. The earliest of these appears to have been Ayers Town, located opposite the mouth of Twelvemile Creek and about 4 km below Old Town. At the time of Feltman's visit in late 1781 to the abandoned Catawba town site, no other town appears to have been re-established within the Catawba Nation, and not all Catawbas had yet returned to their homeland. In fact, an encampment of about 80 Catawbas had been encountered by the Pennsylvania Line four days earlier along Rocky River just northeast of Charlotte.

16th Dec'r. – This morning at sunrise marched at the usual time; crossed Coddle Creek, and Mr. Pheiffer's Ornery, where Capt. Bower and self dined. Passed through a fine country, and encamped on Rocky Run. Mecklenburg county. 14 miles.

Within half a mile of our encampments was an Indian Town of the Catawba Nation. They are but a few in number at this place, about eighty. About four [sic] miles from this place, I am informed, their principal town is, where they have fifteen square miles of land. [Feltman 1853:30–31]

After Ayers Town was established, Old Town was resettled, presumably by its previous inhabitants and perhaps by other families as well. These may have been among the same group of Catawbas encountered on Rocky River. The fact that the Catawba population had split into at least two groups at the close of the Revolutionary War hints at potential internal divisions within the tribe. Despite, or perhaps because of, the coalescent nature of the Catawba Nation, internal ethnic and tribal divisions appear to have persisted in some form well into the nineteenth century. Merrell (1989:264) notes that "The Catawbas' penchant for drawing boundaries was so deeply

ingrained that they even continued to insist some people on the land *inside* were different. In the 1840s the Nation's Cheraws were still distinguished from Catawbas by language, if nothing else."

By the 1790s, several Catawba families had established a third village and were living at New Town, in the uplands just a few kilometers above Old Town. New Town and a smaller settlement to the north called Turkeyhead appear to have been the only Catawba communities situated on the east side of the river during the first decades of the 1800s. While no descriptions of Turkeyhead survive, other than its brief reference by Robert Mills (1826:773–774), the other three towns—Old Town, Ayers Town, and New Town—were visited during this period by several travelers who wrote about Catawba conditions.

The earliest of these was Elkanah Watson, who in 1786 visited the Catawba settlement at Old Town. His goal appears to have been simply to satisfy his curiosity and "to see an Indian people in their native savage condition, so that I might contrast them with the polish and refinement of France..."

When I entered the first village, the young Indians and squaws fled in every direction, the men being absent on a hunting expedition. It was some time before I could find the residence of their king or chief New-River, alias General Scott. At length, an old squaw pointed to a log house, where I was kindly received by the old king on his crutches. He spoke no English; and, to induce him to send for a person to interpret for us, I intimated by signs, that I had an important communication to make. On this, he dispatched a runner across the Catawba river, for an interpreter. In about an hour, his cabin was thronged with savage warriors, and among them was one who had been educated at William and Mary College, a sensible and well-informed person, but a perfect Indian in appearance and habits. I stated to them the probability of a new war with England, on account of that government's having retained the western posts on our territory, in violation of the treaty of peace. The king lighted a large pipe, and we each took three or four whiffs. I produced my bottle of rum, my only credential. We circulated the bottle and pipe alternately, drinking from the former, without the intervention of any other vessel. I observed every countenance sedate and attentive; and, although they appeared warmly interested in the event, they maintained, in the discussion in which they engaged, the utmost decorum, one only speaking at a time. In this council, and strolling through the village with the educated Indian, I spent the residue of the day. We entered their cabins, where I saw several straight-limbed, handsome young girls, daubed with paint, and decorated with feathers, rings, and brooches.

I proceeded afterward to a white tavern, where I lay down in my clothes, with my pistols under my head. My curiosity was but partially satisfied; and I returned the next day to the Indian wigwam, obtaining all the information I desired, and seeing enough to afford abundant sources of reflection and meditation. I found among them a degree of civil hospitality and submissive kindness, which would have done no discredit to their white neighbors. The wife of the chief fed my horse, and supplied me with a meal of smoked venison, placed in a small tub upon the floor. She did all in her power to render me comfortable, if not with the grace of a Parisian lady, undoubtedly with equal kindness of heart. [Watson 1856:294–296]

Five years later, Thomas Coke (1793:148–150) preached at Old Town and observed "Their Nation is reduced to a very small number, and [they] chiefly live in a little town, which in England would be only called a village." He noted that the Catawbas resided in log cabins, which were "not uncomfortable—far superior to the mud-houses in which the poorest of the people in Ireland dwell." As with other visitors, he remarked about the emerging land-leasing system on the reservation, noting that "They possess a quantity of land, fifteen miles square, on the river Catawba. A very small part of this land they cultivate themselves: a much larger part they let out in long leases to the white people." Land leasing became increasingly important to

Catawbas as a source of income during the early nineteenth century, and by the 1810s most Catawba lands were being farmed or managed by whites.

The only known account of a visit to Ayers Town was in late 1797 when Lady Henrietta Liston, wife of British envoy Robert Liston, passed through the town on her way from Camden to Charlotte. Her description of the journey by carriage from her previous night's lodging at Major Robert Crawford's residence provides sufficient detail, both in terms of terrain and distances, for determining the town's approximate location, which is consistent with the location of archaeological site 38YK534. Liston states that the distance from where she entered the woods (see below), between Major Crawford's house and Catawba River, and where she encountered the town was four miles; however, the exact location of this point of departure is uncertain, and the road she traveled also is not definitely known. According to Lindsay Pettus (personal communication 2014), Major Crawford's house was located somewhere along Causar Branch, a tributary of Waxhaw Creek, near the modern intersection of US 521 and SC 5. The only operating ferry across Catawba River in 1797 was McClenahan's Ferry, which later became Cureton's Ferry, and it is likely that this is where she crossed the river.

Robert Mills' (1825) map of Lancaster District, surveyed by J. Boykin in 1820, shows only a single route for accessing the ferry from Crawford's house. The much later *Soil Map of Lancaster County* (USDA 1904) likewise does not show an alternate or shorter route of travel. The distance to the ferry would have been about nine miles. Given that the distance between the ferry site and site 38YK534 is only about 1.5 miles, the total distance traveled by Liston would have been about 10.5 miles. By this route, her carriage would have traveled the ridge road that passes Old Waxhaw Church and entered the dense woods about 6.5 miles from Crawford's house near Mill Branch as it approaches Waxhaw Creek.

While we do not know what the occupants called their town, Liston notes that the town's leader was an "old Warrior" who held the rank of "Colonel" in the tribe and was second in command to the "General," who resided in another of the three Catawba towns. During the 1780s and 1790s, General New River was the tribe's leader and lived either in Old Town or New Town with his wife, Sally; the second in command during this same period was Col. John Ayers (Watson 1995:93–94). Thus, the site has been named Ayers Town.

In addition to providing information about town location and leadership, Liston also provides meaningful descriptions about house architecture, cabin interiors, foodways, dress, physical appearance, and other customs. The full account of her observations about Ayers Town and its residents is as follows:

Early next morning we set out, accompanied by a guide who was to serve as Interpreter, to visit the Nation, as it is here termed. This is a Tribe of Indians, the remains of the Catawba whose number is now reduced to three hundred. Their territory is fifteen miles square. We proceeded a little way on the high road, then suddenly turned into a wood & crossed the tract through grapes, very difficult for a carriage of four horses. We crossed the Catawba River & at the distance of four miles, from the entrance of the wood, reached one of their Towns, situated in a hollow near the River. The first objects that struck us were two Boys sitting at the door of a Log House, the oldest a Boy about ten had a bow & arrow in his hand, & the younger, about four, a Pipe in his mouth, was smoking with all the gravity of a Philosopher.

The Indians settled in the midst of their natural Enemies – the Whites – are obliged in some measure to adopt their customs & their Vices. Many of them build their Log Houses of the same form, always adhering to one apartment only. They have given up the name of King, in compliance to the Republick & their Chief substitutes a Military title. The General was at another Town, more distant, for they are settled in three Towns. The Col., the next in rank, presides in the one we happened to visit. He is

esteemed the most sensible & valliant of his Tribe. Our first respects were paid to him & it being yet early, we found the old Warrior sitting in a Chair, at the side of the fire, with a blanket jacket. His Wife, or as our Interpreter styled her – his Lady, sat on a Stool, with a Savage look squalid & nasty, a woolen Petticoat & a blanket about her naked shoulders her long black hair hanging loose. At one corner of the fire & within the chimney, squatted in form figure & posture a large ape, blind & playing on his teeth with his fingers – This shocking spectacle was it seems an Idiot, almost naked & a quantity of hair hanging over its face, for with this Nation as with some more civilized, these unfortunate objects are not only held sacred (which perhaps they ought to be everywhere) but it is esteemed fortunate to have one in your family.

The Colonel was surrounded with Sons Daughters & grand Children – The young Indian Men are very handsome & the children would be extremely pretty, if they were not often disfigured by Nose jewels. The fine clear dark olive is set off by brilliant black eyes, & there is a characteristic wild sparkling in the eye of an Indian, & a quantity of shining black hair. The Squaws, & all the elder people appear a shade paler, which is no advantage, & the females, except in extreme youth – with their high cheek bones, appeared very ugly. The Col. & a few of the older Men spoke a little bad English. He apologized for the smallness of their numbers saying, the young Men had not yet come in from hunting. We had, indeed, met some of them selling their Deerskins a hundred miles to the South. On the Colonels fire stood a pot, & there was a hoecake on the hearth. I asked what was in the Pot, he said Deers flesh for breakfast, but did not offer us any. In another Hut we found Wild Turkey preparing in the same manner. The only cultivation we saw was a small quantity of Indian corn in the vicinity of the Town, cultivated I am told, by the Women, & this is rather for traveling with (when an Indian sets out on a journey the flour of Indian Corn in a bag & pot to boil it in is all his provision) than to use as bread.

In the course of our visits through the Town, we entered several of the Wigwhams (the original form of their Houses). The fire is in the middle. In one of them we found a sick Indian lying half naked, on a Deerskin near the fire, & in all of them the half naked wretches lay indolently on skins round the fire place. In another Wigwham was a Woman lately delivered. She sat at the fire & the child in her lap, which she covered with her blanket at our entrance. I expressed a desire to see it, & with great difficulty the Interpreter prevailed with her to indulge me. I asked the reason for her reluctance & was told, she was afraid lest the eyes of a Stranger should be evil. I assured her that mine though not beautiful, had been very fortunate.

Before departing we again paid our Compliments to the Colonel, who we were told expected to see us. We found that, upon hearing from the Servants who we were, he had drest himself, in an old green cloth Coat with gold binding, which buttoned very imperfectly over his naked body. [Liston 1797:25–28]

In addition to accounts by Lady Liston and Lieutenant Feltman, another document from the 1780s appears to reference the Catawba town. It is an entry in York County Deed Book A, recorded during "July Term, 1786," for the sale to Benjamin Lowrey of 200 acres lying on "both sides of 12 Mile Creek opposite Catawba Indian Town" (Schmidt 1985:76). This sale was for land originally granted on Catawba lands, illegally, to Robert Mucklhaney in 1752 and exemplifies problems of encroachment on tribal lands that the Catawba Nation was confronted with throughout the latter half of the 1700s.

Finally, John Drayton (1802:98–99), in *A View of South Carolina*, notes that the Catawbas established towns on both sides of the river upon their return from Virginia in 1781:

When the British troops overran this state in 1780, these Indians who had always been true to her interests, retreated before lord Cornwallis to Virginia; and some of them attached themselves to colonel Lee's legion, during their absence; and took the field with him. After the battle of Guilford, in North-Carolina, they returned; but not to their old town. This they deserted; establishing in its room other towns on each side of the river; and a few miles higher up its stream.

Accompanying Drayton's book is a map showing towns on both sides of Catawba River between Twelvemile Creek and Sugar Creek (Figure 2.25). The town depicted on the west side



Figure 2.25. Portion of John Drayton's 1802 map of South Carolina showing Catawba towns on both sides of Catawba River and roads crossing the nation.

of the river, thought to be Ayers Town, is situated near the intersection of the road from Lancaster, which crossed Catawba River at McClenahan's (later Cureton's) ferry, with the road that ran through the nation from the Hill-Hayne Iron Works on Allison Creek to Camden. McClenahan's ferry, first licensed by the state of South Carolina in 1795, is where Lady Liston's carriage would have crossed the river as she approached Ayers Town (McCord 1841:362). The triangular town symbol shown on the east side of the river likely represents New Town; this settlement also is depicted on the 1808 Price-Strothers map of North Carolina (Price and Strothers 1808) (Figure 2.26).

Two travelers left accounts of their visits to New Town during the second decade of the nineteenth century. Calvin Jones, who passed through New Town in 1815, noted that the community consisted of "6 or 8 houses facing an oblong square" with the entire population within the Catawba Nation "not exceeding 25 or 30 Warriors" (Jones 1815). He also observed that their houses were of cribbed-log construction with chimneys and dirt floors, except for the houses of Sally New River and Jacob Ayers which had wooden floors. He found the Catawba women busy making earthenware vessels and, like other travelers, remarked that most men were away from the village hunting or fishing. The following year George Blackburn, a professor at South Carolina College, visited New Town while conducting an astronomical and topographic survey of the state. In an account related to Robert Mills (1826:112–113), he described the town as "a little village consisting of four families."

The New Town community sustained itself through subsistence farming and hunting, supplemented with cash income from cottage industries and land rents. Rents from leasing the reserved lands to white planters became an essential part of the Catawba economy (Mills



Figure 2.26. Portion of the 1808 Price-Strothers map of North Carolina showing the Catawba Nation boundary, New Town (Catawba Town), and the abandoned settlements near Nation Ford, depicted simply as "Old Town." Catawba settlement on the west side of the river is not shown.

1826:111–116). In addition to providing much-needed income, the leasing system helped secure Catawba tenure. The lessees, who derived great economic benefits from their exclusive (and cheap) use of Indian lands, supported the Catawba nations' territorial rights and actively barred intruders and squatters from Catawba lands. With these proxies guarding their territory, the Catawbas were free to pursue an itinerant strategy. Between rent payments, the Catawbas frequently traveled the Carolina midlands and low country like gypsy bands. These groups moved from plantation to plantation, where women produced pottery for slaves and planters alike, while men hunted game or escaped slaves for planters (Plane 2011).

These seasonal rounds served multiple economic, social, and political functions. Ceramic production offered a higher return on labor than agricultural production or other modes available to the Catawbas, and Catawba women generated considerable income from thousands of vessels sold annually. As enforcers for the plantation system, Catawba men were able to perpetuate their image as allied, but independent, warriors who were still relevant in the new order. Itinerancy increased Catawba visibility, and the annual arrival of Catawba bands reminded Carolina

planters and other political elites of the continued presence of the "Patriot Indians" who fought for South Carolina's independence.

Archaeological Evidence

Archaeological evidence of Catawba lifeways during the Federal period derives from four sites. Ayers Town and the Old Town II component at Old Town are largely contemporary settlements that were occupied during the last two decades of the 1700s, while New Town and the Bowers site (Turkeyhead) document Catawba settlement during the first decades of the 1800s. The archaeology of Old Town was described earlier while discussing the Late Colonial Period; the archaeological remains of Ayers Town are the subject of this report and are treated in greater detail in subsequent chapters.

New Town (c. 1790–1820). New Town (RLA-SoC 632/635) is situated on an upland ridge overlooking the Catawba valley, about 1.3 km north of Old Town, and should not be confused with another town called "Newtown" that was situated on the opposite side of Catawba River by the mid-1820s (Mills 1825, 1826) (Figure 2.27). Archaeological and historical evidence suggest that New Town was established during the last decade of the eighteenth century and abandoned following the death of resident Sally New River in 1820. During this period, Catawbas derived much of their annual income by leasing large parcels of reservation lands to white farmers and through the production and sale of hand-built earthenwares. This period also witnessed the establishment of nearby towns and commercial establishments, which would have facilitated Catawbas' access to manufactured goods.

Between 2003 and 2005, UNC archaeologists conducted systematic metal detector survey at the heavily wooded site and located seven discrete concentrations of artifacts and architectural remains representing individual households (Figure 2.28). An eight cabin locus was identified during a recent reconnaissance of the site in 2012. These cabin loci are distributed over a 12 hectare area and correspond well with Calvin Jones' (1815) description of "6 or 8 houses facing an oblong square." The cabins, of cribbed-log construction, were linked to one another by a network of wagon roads and foot paths. Traces of this network are still visible as landscape features, particularly in the vicinities of Locus 3 and Locus 4 which were never disturbed by agricultural plowing (Davis and Riggs 2004, 2005, 2006; Riggs et al. 2006; Shebalin 2011).

Excavations at six of the cabin sites covered about 800 m² and exposed a cellar pit, borrow pits, refuse-filled stump holes, peripheral trash dumps, stick-and-clay chimney bases and hearths, and sheet midden deposits. Houses at two of the loci (Loci 4 and 5) had elevated floors, indicated by raised end-chimney hearths preserved within chimney-fall "mounds." Fired areas indicative of earthen floor-level hearths were identified at three other loci (Loci 2, 3, and 6). Only the house at Locus 2 had a sub-floor cellar, indicating that most New Town residents no longer required these kinds of sub-floor storage facilities.

Because few pit features were discovered and most other cultural features represent surface deposits or architectural remains, comparatively little soil was processed by waterscreening or flotation; however, all other excavated soils were screened through 1/4-inch mesh. About 86,000 artifacts were recovered from New Town, including more than 60,000 Catawba pottery fragments and numerous European and Euroamerican-manufactured items.


Figure 2.27. Map of New Town showing boundaries of eight cabin loci, as defined by systematic metal detecting and the distribution of surface finds, and areas excavated in 2003, 2004, and 2005. Contour interval = 1 m (elevations reference an artibrary datum).

The most extensively investigated cabin locus was Locus 4, where two sequentially occupied cabins were identified that are thought to be the residence of Sally New River (Figure 2.28). Prior to excavation, systematic metal detector survey around the two well-preserved chimney falls recovered more than 500 artifacts and identified accumulations of refuse around chimney bases, at the far edge of the front yard, and within dump areas behind the cabins and along a wagon road that passed in front of the cabins. Subsequent excavation of the chimney falls, the cabin footprints, the yard areas, and within several of the trash dumps recovered more than 16,000 artifacts.



Figure 2.28. Excavation plan for Locus 4 at New Town, showing cribbed-log house footprints, associated end chimney and hearth remnants, an outside cooking area, peripheral refuse dumps, and landscape features. Artifact distributions in the yard areas just south of the cabins suggest sequential occupations, with Cabin 2 being the later structure.

As with the other cabin seats, most (about 60%) of the assemblage consists of Catawbamade plain earthenware. Represented vessels include plates and flat-bottomed, flaring-walled pans, as well as cooking jars with thickened rims and tripodal kettles with loop handles. Many of the Catawba-made vessel rims are decorated with reddish orange paint, and at least a few were decorated to mimic English shell-edged wares. Nearly 2,800 English-manufactured ceramics, mostly pearlwares but including creamwares and some porcelains and stonewares, also were recovered. Aside from clay pipes, which are almost entirely of Catawba manufacture and often elaborately decorated with fine engraving, the remainder of the material assemblage consists



Figure 2.29. Cast and wrought iron artifacts from Loci 1, 2, and 3 at New Town.

mostly of Euroamerican and European-made goods. These include fragments of glass bottles, metal buttons, glass beads and other jewelry, table cutlery, harness hardware, agricultural equipment, and gun parts and ammunition.

Overall, the six excavated cabin loci at New Town yielded rich and diverse material assemblages (Figure 2.29–2.33). Riding tack hardware is especially prominent, reflecting the ever-increasing importance of horses for Catawba mobility and the nation's growing wealth in horses. Wagon hardware recovered from two cabin areas also indicates the adoption of wheeled vehicles; these may have been particularly useful to Catawba itinerants.

Firearms and ammunition are much less prevalent than at Nassaw and Old Town, a reflection of the steeply declining importance of warfare and hunting. Personal items,

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Figure 2.30. Clay pipes, glassware, silver and brass ornaments, and other artifacts from New Town.

particularly glass beads, silver jewelry, and Jew's harps, are numerous. Personal ornamentation items, including silver earbobs and nose bangles, may have been particularly important for Catawbas who sought to clearly project their identity as "wild" or "exotic" Indians, as distinct from the tame, "degraded" settlement Indians who had assumed a tertiary status in South Carolina society. In contrast, abundant clothing hardware and sewing equipment reflects widespread adoption of western modes of dress.

The New Town cabins also yielded abundant cast iron cookwares and tablewares, such as pearlware and creamware plates, bowls and cups, cutlery, and glassware (e.g., tumblers and decanters), that indicate widespread and detailed adoption of western equipment, if not the associated rituals and symbolism. Complementary to English tablewares are Catawba-made low-fired earthenwares. These finely made pans, jars, bowls, plates, and mugs closely resemble some of the colonoware ceramics from Federal period contexts in the South Carolina piedmont and coastal plain, much of which may have been the work of itinerant New Town potters.

CHAPTER 2



Figure 2.31. Glass bead types represented at New Town (type designations follow Kidd and Kidd 1970).

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Figure 2.32. Catawba and English pottery from Locus 4 at New Town.



Figure 2.33. Vessel forms represented in the Catawba-made earthenware assemblage at New Town.

Potters' tools (e.g., burnishing pebbles and shell scrapers) and waster dumps further attest the prominence of the New Town ceramic industry. Mold-made clay tobacco pipes were likely a substantial component of this industry.

Subsistence remains and food storage facilities are notably scarce at New Town. Only one pit yielded appreciable quantities of charred corn, peach pits, eggshell, deer bones, pig bones, and fish bones. The scarcity of such remains is consistent with one lessee's observation that the seasonal residents had effectively abandoned agriculture and were largely dependent on hunting, gathering, and lease payments of bacon, meal, and flour. Jones found only one Catawba woman who actively farmed.

Bowers Site (c. 1800–1820s). The Bowers site (38LA483) is located atop a high ridge overlooking Catawba River, about 2.5 km north of New Town. It is shown on Robert Mills' 1825 map of Lancaster District, and he notes that the unnamed small town "is generally called Turkey-head" (Mills 1826:773–774) (Figure 2.34). The site was discovered in 1970 and in early 2002 was the first to be excavated as part of the University of North Carolina's Catawba project (Davis and Riggs 2004). Shovel testing defined a small (500 m²) cabin locus, one of three identified at the site, and located a shallow, rectangular cellar pit aligned parallel to a Federal period roadbed (Figure 2.35). Excavation of this substructure cellar recovered more than 2,000 artifacts, including Catawba burnished pottery (representing plates, pans, bowls, jars, and a cup), English pearlware and creamware sherds, Catawba clay pipe fragments, glass bottle and



Figure 2.34. Portions of York (left) and Lancaster (right) district maps from Robert Mills' 1825 atlas, showing Turkey-head (designated simply as "Indians") and the main Catawba Nation settlement on the west side of Catawba River at the location of the modern-day Catawba Reservation.

stemware fragments, brass buttons, lead shot, an iron snaffle bit, and glass beads (Figures 2.36 and 2.37). The Catawba ceramic assemblage is similar to that found at New Town, representing European vessel forms and containing fragments of vessels with painted decorations. The worn and highly fragmented character of this collection, together with the inclusion of abundant gravels and Archaic lithic artifacts in the cellar deposits, suggests that most of this material was cleaned from the site surface and dumped into the cellar after its abandonment as a storage facility. The English-made ceramics and other associated materials indicate a site occupation during the first three decades of the nineteenth century.

Shortly after archaeological investigations were undertaken at the Bowers site, the property was sold for development, and today all but a very small part of Turkeyhead has been subsumed by the residences and golf courses of the Sun City Carolina Lakes community (Edwards 2006).

Conclusion

Despite secure economic and territorial bases, Catawba population spiraled downward during the early nineteenth century due to disease and rampant alcohol abuse. With the death in 1820 of Sally New River, the matriarch of New Town, the community moved across the river to the location of the present-day Catawba reservation, but Catawba families continued until about 1855 to visit the site of the old town to bury their dead (Speck 1939:43). By the time of the town's abandonment, most of the Catawba lands were under long-term leases to white farmers, a system which Robert Mills (1826:114–115) described as follows:

The remains of this nation now occupy a territory 15 miles square, laid out on both sides of the Catawba river, and including part of York and Lancaster districts. This tract embraces a body of fine lands, well timbered with oak, &c. These lands are almost all leased out to white settlers, for 99 years, renewable, at the rate of from 15 to \$20 per annum for each plantation, of about 300 acres. The annual income from these lands is estimated to amount to about \$5000. This sum prudently managed, would



Figure 2.35. Map of the Bowers site showing the location of the cabin cellar pit (Feature 1) and the areas investigated in 2002. Contour interval = 10 cm (elevations reference an arbitrary datum).

suffice to support the whole nation, (now composed of about 30 families,) comfortably. Yet these wretched Indians live in a state of abject poverty, the consequence of their indolence, and dissipated habits. They dun for their rent before it is due, and the 10 or \$20 received are frequently spent in a debauch; poverty, beggary and misery follow, for a year. What a state of degradation is this for a whole people to be in, all the result of neglect of duty on our part, as guardians of their welfare.

Over the next two decades, the nation maintained a measure of political, economic, and cultural autonomy in its native territory, but gradually fell into obscurity, and their 150-year alliance with South Carolina faltered. White politicians and businessmen interpreted the Catawbas' waning numbers and declining economy as evidence of impending extinction.



Figure 2.36. Catawba pottery recovered from Feature 1 at the Bowers site.

Attitudes of non-Indians residing on Catawba lands also shifted, as more and more white leaseholders came to regard Catawba lands as theirs. This shift is evidenced in the leases and other legal documents associated with the leasing system.

In the beginning, leaseholders referred to "my lease of land inside the Indian Boundary" or "my Indian lease." Over time, the wording often became "my land" with the word "lease" dropped altogether. "Indian Boundary," if used, was shortened to "I.B." While some leaseholders still recognized the Indians' ownership, others dropped references to the Indians altogether. Second- and third-generation heirs often inherited "my land" with no acknowledgment that the land still legally belonged to the Catawba Indians. [Pettus 2005:43]

In 1840, South Carolina politicians cajoled a few Catawba leaders into ceding their reserved lands for a small cash payment and the promise of a new reserve near the Eastern Cherokees. By this time, many Catawba families already had moved to Qualla Boundary, and others soon



Figure 2.37. Glass and English pottery recovered from Feature 1 at the Bowers site.

followed (Brown 1966:319). This resettlement failed, and the Catawbas soon were denationalized and dispossessed of their lands, reduced from "the Patriot Indians" to landless "free persons of color," wandering as itinerant potters and day-laborers through an increasingly race conscious and strident South. While some Catawbas remained among the Cherokee in western North Carolina, many returned to their old lands on Catawba River, and still others left the Carolinas altogether, including a group of 23 who joined the Choctaw Nation in western Arkansas after unsuccessful attempts by the U.S. Office of Indian Affairs to re-settle them among the Cherokee and Chickasaw in Indian Territory (Brown 1966:324–327). In 1842 Joseph White, acting as agent for the Catawbas on behalf of the state of South Carolina, purchased a 630-acre tract of poor, hilly, and forested land on the west bank of the river, opposite the site of New Town, for the Catawba families who had remained or returned after their unsuccessful

resettlement in western North Carolina (Brown 1966:320). Today, this tract forms the nucleus of the Catawba Reservation.

During the latter half of the nineteenth century, Catawbas became nearly invisible to their surrounding white neighbors, as they quietly got on with the task of day-to-day living and raising families. As a visitor to the reservation in 1893 noted, "this people, which once made the woods of Carolina ring with the war-whoop as they went forth against the enemies of the early settlers, have been allowed to dwindle away unnoticed, until now the very fact of the existence of an Indian in South Carolina is, perhaps, not generally known, even in counties almost touching the Catawba Reservation" (Scaife 1896:3).

Entries for 13 Catawba households enumerated in the 1880 federal census for Catawba Township, York County, South Carolina (pages 38 to 41) suggest that most families survived either as subsistence farmers or day laborers. Occupations for Catawba men were listed as "farmer" or "laborer," while those for Catawba women were recorded as "keeping house" or "washer woman." The traditional crafts of pottery-making and pipe-making also continued to provide an important supplement to household incomes.

Despite the many hardships, abuses, and tragedies that they suffered, the Catawbas' historical narrative ultimately is one of adaptation, re-adaptation, and survival in the face of seemingly insurmountable odds. Over a period of more than 170 years following the establishment of the English at Charles Town, Catawbas successfully negotiated with colonial and state governments, traders, and other Indian tribes to insure their survival and relevance on the ever-shifting frontier between Europeans and Indians. The arrival of Europeans posed innumerable challenges, but it also presented opportunities for trade and alliance that the Catawbas seized upon to solve the looming crises of the shatter zones that emanated from the Great Lakes. Catawba leadership parlayed strategic partnerships with the English of South Carolina and Virginia into a position of economic and military strength that drew native allies, bolstered sagging populations, and solidified the Catawbas' preeminent position in the piedmont. By skillfully managing these relationships with Europeans, the Catawbas were able to maintain territorial integrity and political and cultural autonomy even as they continuously redefined and reinvented themselves in the face of changing conditions. The ultimate persistence and florescence of the Catawba Nation during the late twentieth and twenty-first centuries confounded the frequent earlier predictions of their inevitable disappearance, and is testament to the strength of this community and its sagacious adaptations to the "New World" that the Europeans had brought (Merrell 1989).

Today, the Catawba Indian Nation is the sole federally recognized tribe in South Carolina and boasts over 2,800 enrolled members. The nation maintains a reservation on the Catawba River, within the bounds of the old 1763 reservation and just 5 km north of Ayers Town, and unlike most native peoples in the eastern United States, Catawbas still reside where they were first encountered by European explorers almost 500 years ago. Members of the Catawba Nation still maintain native traditions that set them apart as unique citizens, even while fully integrated into the broader social, political, and economic fabric of South Carolina and the nation.

Chapter 3

METHODS OF ARCHAEOLOGICAL INVESTIGATION

Archaeological evidence for Ayers Town was initially revealed in 2008 by Legacy Research archaeologists during survey along a 48-m (150-ft) corridor flanking the north side of the SC Highway 5 right-of-way (Legacy 2009:32–33). This survey consisted of surface reconnaissance and systematic subsurface testing along transects at 30-m intervals. Eight potsherds and an English kaolin pipe fragment associated with the historic Catawba occupation of Ayers Town were recovered from three adjacent shovel test pits (Transect 20, Shovel Tests 23–25). Eleven lithic artifacts attributable to earlier cultural components were recovered from three adjacent shovel test pits in Transects 20 (Shovel Test 24) and 21 (Shovel Tests 24 and 25), and from the exposed ground surface flanking the south edge of the site (Legacy 2009:65).

Initial site discovery was followed up with a program of more intensive shovel testing to delimit the site and assess site content (Figure 3.1) (Legacy 2009:65). One hundred thirty-seven shovel test were excavated at five-meter intervals; of these, 62 yielded cultural material and defined a site area measuring approximately 60 m east-west by 65-m north-south. Almost three-fourths of the 219 total artifacts found (including those collected during initial site discovery) were fragments of Catawba-made coarse earthenware attributable to the historic occupation at Ayers Town. Other artifacts associated with this occupation included two fragments of English ceramics, a piece of a kaolin pipe, and five bottle glass fragments. The remaining artifacts were stone tool fragments and debitage associated with earlier site components.

The University of North Carolina's archaeological investigations at Ayers Town were undertaken in two phases. The initial phase, which began April 20, 2010 and concluded July 1, 2010, coincided with the university's summer archaeological field school and involved comprehensive topographic mapping of the site surface and surrounding area, sampling the site through systematic metal detection survey, remote sensing, systematic soil auger testing, test and block excavations, partial stripping of the site with a mini-excavator to identify archaeological features, and hand excavation of exposed archaeological features. Seventy-eight features, including 19 graves, were identified. During the second phase of investigations, which began on November 19, 2010 and concluded on January 6, 2011, the remainder of the site was stripped with a mini-excavator and 113 additional archaeological features were identified.

Relocating the Site and Establishing the Grid

The discovery in 2008 of site 38YK534 by Legacy Research Associates and the delineation of its approximate boundaries were based on a combination of surface survey of exposed ground along the gas pipeline right-of-way which runs parallel to SC Highway 5 and systematic shovel testing at approximately 5-m intervals within the adjacent wooded area to the north. Based on these investigations, which included 69 positive shovel tests and 137 total shovel tests, a site



Figure 3.1. Legacy shovel test pits that were identified and re-mapped during 2010 fieldwork. Symbols represent the following: open circle – no Catawba potsherds found; small dot – 1 to 3 potsherds found; and large dot – 4 to 9 potsherds found. Contour interval = 20 cm (elevations reference an arbitrary datum).

boundary approximately 65 m (north–south) by 60 m (east–west) was defined (Legacy Research Associates 2009:65–70). When RLA investigations began in spring 2010, some of the surveyor's flagging marking the site boundaries was still intact, many of the shovel test pits still contained pin flags, and some of those pin flags had Legacy grid coordinates marked on them (Figure 3.1). In the absence of permanent grid markers to provide precise spatial control for the earlier site investigations, our first task was to establish a new site grid and then record all visible evidence of the earlier work relative to that grid.

Because we planned to work simultaneously at both sites 38YK533 and 38YK534, we decided to use a single grid and to tie that grid into the South Carolina State Plane reference points that had been placed in the vicinities of both sites by surveyors working for Mulkey Engineering and Consultants. The initial grid datum point was established at Mulkey's iron reference point marked CP13, located at 38YK533. This point, designated RLA Station #1, was assigned a coordinate of 860.000 m east and 860.000 m north, and an arbitrary elevation of 100.000 m (actual elevation is approximately 144.06 m AMSL). With a total station set up atop

this pin, a north–south baseline was established using a compass, and a steel spike was driven into the base of a pine tree along the line north of the pin. With the north–south axis of the grid established, a second Mulkey reference point, marked CP12 and located approximately 75 m southeast of CP13, was located with the total station as having a coordinate of 928.865 m east and 826.492 m north. (The standard nomenclature used for grid coordinates throughout this report is 826.492R928.865, with the first value representing the north or "y" value, "R" indicating right of the zero north–south baseline, and the second value representing the east or "x" value.)

Once the grid had been established for site 38YK533, grid coordinates and elevations were determined for two additional Mulkey reference points in the vicinity of site 38YK534. An iron pin marked CP17, located just southeast of the site and within the natural gas pipeline right-of-way that flanked the north side of the existing SC Highway 5 right-of-way, was determined to be 857.721R224.464 (100.700 m elevation). Another iron pin, marked CP18 and located about 170 m southwest of CP17 between the pipeline right-of-way and SC Highway 5, was determined to be 818.477R58.879 (104.370 m elevation).

With spatial controls having been established, all extant site boundary flags and pin flags marking earlier shovel test pits were mapped with a total station; other visible shovel test pits without markers also were mapped. Then, surface elevations were recorded at approximately 5-m intervals across the entire site area in order to construct an accurate topographic map. This required substantial clearing of the site due to existing vegetation, as well as fallen trees and limbs.

Metal Detection Survey

The first site investigation at Ayers Town was to conduct a comprehensive metal detection survey in order to gauge site extent, artifact density, spatial artifact patterning, and by extension, site structure. Previous research at the Catawba village sites of Nassaw (ca. 1750–1759), Old Town (ca. 1763–1790), and New Town (ca. 1790–1820) has demonstrated that metal artifacts are ubiquitous in later historic-era Catawba contexts and can serve as accurate proxy measures for the distributions of other artifact classes and for the location of discrete deposits such as archaeological features (e.g., Davis and Riggs 2004; Fitts et al. 2007).

The procedure for the metal detection survey was as follows. First, the suspected site area was uniformly and completely swept with a Fisher Model 1270 metal detector, and all metal locations were marked with pin flags. Metal detecting usually was conducted in small, contiguous blocks about 10 m on a side; this insured that no area was inadvertently missed. Second, each flagged location was carefully excavated with a shovel to retrieve the detected artifact or artifacts. The excavated fill from each shovel test was carefully examined, but not screened, to find other, non-metallic artifacts such as potsherds, and the bottom of each shovel test also was examined for the presence of intact archaeological deposits. Finally, the excavated shovel test was backfilled and its location was recorded with a total station. In instances where only modern artifacts (e.g., barbed-wire fencing, fence staples, bottlecaps, etc.) were recovered, those finds were discarded and their locations were not recorded.

The metal detection survey at Ayers Town covered 4,631 sq meters and yielded 417 artifacts from 367 positive shovel tests (designated FS#1 to FS#386) (Figure 3.2). An additional 19 shovel tests yielded artifacts which, upon further inspection in the lab, were determined to be



Figure 3.2. Map showing the area covered by the metal detection survey and the locations of recovered lateeighteenth-century artifacts (red dots). Contour interval = 20 cm (elevations reference an artibrary datum).

modern, and those artifacts were discarded. Most categories of brass, copper, iron, lead, nickel, pewter, and silver artifacts are represented in the sample of metal-detected artifacts; non-metallic artifacts such as pottery and chipped stone also were recovered. The most common artifacts were hand-wrought nails and nail fragments (n=173), Catawba potsherds (n=48), cast iron kettle and Dutch oven fragments (n=36), unidentified iron objects (n=24), cut nails (n=19), pieces of lead shot (n=16), Jew's harps (n=6), and buttons (n=5). Other artifacts include coins, horse tack and harness hardware, and gun parts. These artifacts are discussed further in Chapter 6.

Once the metal detection survey was completed, the spatial density and distribution of metal artifacts was compared to the results of the shovel testing program reported by Legacy Research Associates. As can be seen in Figures 3.3 and 3.4, both methods of site sampling provide generally consistent artifact distribution data for defining the eastern, southern, and western edges of the site; however, they provide conflicting evidence for defining the northern (particularly northwestern) edge. While shovel testing recovered several fragments of pottery in this area, very few metal artifacts were detected. As will be seen later, the two 1x1-m test



Figure 3.3. Density map of potsherds recovered by systematic shovel testing with superimposed map of test pit locations and potsherd counts per shovel test pit. The density contour plot was generated using Surfer 9 with data gridded at one-meter intervals.

units dug in this part of the site revealed thick, re-deposited sediments containing numerous small fragments of pottery. These sediments represent sheet wash derived from the adjacent site surface; because of this, the artifacts contained within them do not provide meaningful spatial evidence of cultural behavior while the site was occupied. The more robust spatial pattern exhibited by recovered metal artifacts suggests these artifacts were less susceptible to lateral migration from soil erosion. Later in this chapter, we will consider the relationship of artifacts recovered by systematic shovel testing and metal detection survey to the spatial distribution of archaeological features and interpreted community structure.

Remote Sensing and Systematic Soil Auger Testing

Given previous field experience at other Catawba sites such as Nassaw and Old Town, it was anticipated that archaeological features would be encountered during the metal detection survey, as metal objects would be detected in the tops of refuse-filled pits. It was hoped that the detection of features in this way would provide clues about settlement structure that could guide more intensive investigation of household areas within the site. However, this was not the case. While several archaeological features contained metal artifacts, these artifacts mostly occurred in

CHAPTER 3



Figure 3.4. Density map of artifacts recovered by metal detecting with superimposed map of piece-plotted artifacts. The density contour plot was generated using Surfer 9 with data gridded at one-meter intervals.

lower fill zones beyond the range of the metal detector, and no features were identified by metal detecting. In the absence of such evidence, two additional search strategies were employed with the expectation of identifying features.

The first was to employ remote sensing to identify subsurface soil anomalies that might be attributable to cultural activity. Using a GeoScan FM36 Fluxgate gradiometer, Gerald Schroedl and Stephen Yerka of the University of Tennessee conducted a survey of the site area to detect magnetic anomalies in the soil that might be produced by subsurface archaeological features (e.g., pits, hearths, etc.). Unfortunately, and for reasons not fully understood, the gradiometer survey failed to reveal any anomalies suggestive of archaeological features. However, they did identify the progressively deeper, redeposited topsoil along the north edge of the site—a finding that was confirmed later by 1x1-m test units and mechanical stripping of topsoil.

Shortly after the gradiometer survey, a weather system brought heavy rains to the Catawba valley, and this had a very positive effect for our archaeological fieldwork. With substantially increased soil moisture following a relatively dry spring, it became possible for a period of about two weeks to probe beneath the plow zone using soil augers. Accordingly, auger testing was initiated within a 40 m by 50 m block in the center of the site. This work, as with the latter



Figure 3.5. Map showing the area covered by systematic soil auger testing and the locations of positive auger tests (red dots). Contour interval = 20 cm (elevations reference an arbitrary datum).

phases of the metal detection survey, continued concurrently with the hand excavation of 1x1-m test units across the site.

The auger survey was conducted with an Oakfield soil sampling tube, which is pushed vertically into the ground to extract a 35-cm soil core measuring 18 mm in diameter (Figures 3.5 and 3.6). In most instances, the plow zone and top of subsoil could be penetrated in a single pass. Using measuring tapes to lay out the augering grid, probes were made at one-meter intervals. In all, approximately 1,300 auger tests were made within an area covering 1,354 sq meters. While most auger tests encountered sterile red clay beneath plow zone, 31 tests revealed mottled clay fill or midden-like soil with fragments of fired clay, charcoal, and occasional artifacts. These "positive" tests located 14 graves, four cellars or storage pits, three borrow pits, and two other pits. Most of these archaeological features were found in the southwest quarter of the site. A comparison of the auger testing results with the map of archaeological features identified by complete stripping of the site shows that, while some features were missed by augering (e.g., none of the numerous small, charcoal-filled smudge pits were identified), most substantial features were found. Moreover, the results of the auger testing permitted an accurate



Figure 3.6. Pairs of soil cores showing positive and negative results. In the upper pair, the top core shows undisturbed red clay beneath the brown topsoil while the bottom core shows mottled, midden-like pit fill beneath the topsoil. In the lower pair, the top core shows brightly mottled clay grave fill beneath topsoil while the bottom core shows undisturbed yellowish red subsoil beneath topsoil.

portrayal of site structure within the area that was sampled. These results, coupled with the discovery of several archaeological features in the 1x1-m test units, guided the investigations at the site during the remainder of the 2010 summer field season.

Test and Block Excavations

Once the center of the site had been systematically sampled by metal detection, 24 1x1-m test units were laid out across the site at 10-m intervals (Figures 3.7 and 3.8). The goals for digging these initial units were: (1) to assess site stratigraphy across the site; and (2) to provide additional assessment of potential site structure as represented by spatial variation in artifact density. The method for excavating these and 87 other 1x1-m units dug at the site was as follows. First, unit corners were established with a total station, with the unit being designated by the coordinate of its southeast corner (e.g., Square 860R200 designated a unit with corners at 860R200, 860R190, 870R200, and 870R190). Galvanized pins were placed at each corner, and a string was pulled between the corners to define the unit edges. After removing leaf litter from the top of the unit, the topsoil (or plowed soil) was hand excavated with shovels and trowels. All excavated soil was dry-screened through 1/4-inch hardware mesh, and objects caught in the screen were placed in a paper bag and returned to the lab for cleaning. In most instances, the plow zone was removed in two levels: an upper level of loosely-compacted soil, and a more compact lower level. Traces of plow scars were observed at the base of several units. Once an



Figure 3.7. Map showing the 1x1-m hand-excavated units at Ayers Town. Twenty-four test units placed at 10-m intervals are shown in blue; the remaining 87 units are shown in brown. Contour interval = 20 cm (elevations reference an arbitrary datum).

excavation level was completed, its depth at each corner was measured both with a total station and with measuring tapes (or folding rule). Soil texture, soil color, and artifact content also were noted, and this information was placed on a separate form for each unit excavation level. Finally, each excavated unit was carefully cleaned with trowels and photographed. Any archaeological features or other disturbances observed at the base of an excavation unit were drawn by hand and also mapped with a total station.

More than 2,200 artifacts were recovered from the 24 systematically-placed test units; of these, about 85% (n=1,900) were potsherds. Two additional units dug at the northwest edge of the site contained 59 potsherds. The spatial pattern of potsherd density revealed by these excavations generally corresponds to the pattern identified by systematic shovel testing, except that densities were much lower at the northwest edge of the site than was suggested by shovel testing. Greater numbers of potsherds were recovered from units on the west side of the site where soils were thicker (Figure 3.9). This pattern only roughly corresponds to the distribution of archaeological features attributed to the historic occupation of Ayers Town.



Figure 3.8. Students excavating 1x1-m units placed at 10-m intervals across Ayers Town. View to northeast.

Five of the initial test units revealed the tops of archaeological features, which included two refuse-filled storage pits (Features 4 and 5), a small pit (Feature 27), and a grave (Feature 7). Fourteen additional 1x1-m units were excavated around these test units to fully expose the features, whereby four additional features — a posthole, two smudge pits, and a storage pit (Features 2, 1, 6, and 3, respectively) — were also uncovered.

During metal detecting and topographic survey of the site, it was observed that an area near the center of the site, about seven meters in diameter, was slightly depressed and devoid of metal artifacts. Suspecting that these characteristics might indicate the location of a house seat, a 5x5-m block containing 25 1x1-m units (Squares 875–879R191–195) was excavated with the expectation of finding one or more sub-floor storage pits or cellars (Figure 3.10). While no features were found in this block, later mechanical stripping of the adjacent area revealed a large rectangular cellar pit (Feature 55) just beyond the west edge of the block, thus validating our initial suspicion.

Based on the results of systematic soil auger testing, five additional blocks containing a total of 43 1x1-m units were excavated. Two of these blocks (Squares 865–868R157–158 and Squares 871–874R155–157), located near the west edge of the site, contained two large storage pits (Features 33 and 69), a clay borrow pit (Feature 61), and two other pits (Features 62 and 68). Just east of these blocks, a third block (Squares 867–870R165–166) was excavated that revealed four overlapping graves (Features 36, 37, 38, and 39). Four units excavated just south of these graves revealed a large tree disturbance but no cultural features. Finally, a block of 13 units was excavated just north of the large 5x5-m block. It contained two large clay borrow pits (Features 72 and 73) and two small, sub-rectangular storage pits (Features 73 and 74).



Figure 3.9. Density map of potsherds recovered from 26 1x1-meter test units with superimposed map of test unit locations and potsherd counts per test unit.

Of the five remaining 1x1-m units, three were dug adjacent to two of the initial test units, and they did not reveal any cultural features. The other two were excavated north of the main site in order to investigate the more deeply buried soils in that area. These units (Squares 897R149 and 912R170) revealed stratified deposits of plow-disturbed soils to depths of 50 cm and 60 cm, respectively.

Mechanical Stripping of Topsoil

Once the comprehensive metal detection survey and excavation of test units were completed, the remainder of Ayers Town was mechanically stripped with a mini-excavator, or trackhoe, in order to expose the tops of archaeological features at the base of disturbed plowed soil (Figure 3.11). This approach was justified by four factors. First, the topsoil to be stripped had been systematically sampled by shovel testing, comprehensive metal detecting, and test excavations. Second, the testing of the site with 1x1-m units demonstrated that, because of severe disturbance by plowing and soil erosion, more extensive hand excavation of the site was not likely to yield fine-scale artifact distribution data that could be used to determine settlement structure at the site. Third, the discovery of preserved pit features through initial test excavations and auger testing indicated that the large-scale exposure and sampling of these contexts provided



Figure 3.10. Students recording elevations in Squares 875–879R191–195 following excavation. Feature 55, a large rectangular cellar pit, is located just beyond the west profile (near total station). SC Highway 5 is in the background. View to southwest.

the best means for assessing village pattern and identifying individual household areas. Fourth, the demonstrated presence of multiple graves necessitated a comprehensive approach to the site whereby all such archaeological features could be identified. Consequently, it was decided to strip the disturbed plowed soil from the remainder of the site in order to identify, map, and excavate archaeological features.

The procedure used in stripping topsoil from the site was as follows. From a stationary position the mini-excavator, using a toothless bucket, gradually removed topsoil from an area roughly 4 m x 5 m until the top of subsoil was reached. At this point, workers with sharpened shovels shaved the top-of-subsoil surface until a clean surface was achieved. All soil anomalies (i.e., tops of potential features) were marked with pin flags. These were then trowelled and examined more closely to determine if they warranted excavation. This process was repeated as the mini-excavator expanded the exposure.

The depth from ground surface to top of subsoil varied across the site. At the eastern edge, only about 10 cm of soil needed to be removed; at the western edge, the topsoil was about 30 cm thick. Topsoil was more than 50 cm thick at the northwest edge of the site, and near the edge of the highway, where fill dirt had been deposited during road construction in the late 1950s, subsoil was capped by as much as 1.5 m of soil.

Mechanical stripping was undertaken in two phases, and a total of 3,400 sq m was exposed. This comprised the entire site area as defined by the occurrence of subsurface archaeological



Figure 3.11. Map showing areas of mechanical stripping. The area depicted in beige near the site center and the areas depicted in green along SC Highway 5 were stripped during summer 2010; the remaining site area, shown in blue, was stripped during late fall, 2010. Contour interval = 20 cm (elevations reference an arbitrary datum).

features. During the summer field season, an area comprising about 410 sq m was exposed in the eastern and central portions of the site (Figures 3.12 and 3.13). This area also encompassed the 5x5-m excavation block discussed earlier. Several features were uncovered, including a large rectangular cellar pit (Feature 55) just west of the 5x5-m block, several small cylindrical pits (postholes) and charred corncob-filled pits (smudge pits), a refuse-filled stump hole (Feature 67), two probable Archaic hearths (Features 31 and 60), and 14 graves comprising part of a historic Catawba cemetery (Features 41 to 54).

With the discovery of the cemetery, mechanical stripping within the village area was temporarily halted, and attention was re-directed to the proposed highway construction zone between the north edge of SC Highway 5 and the high-pressure gas pipelines at the south edge of the site (Figure 3.14). Specifically, we were directed to determine if the cemetery extended into the construction zone. Because we were already near the end of the summer 2010 field season, a second, larger mini-excavator was also used to remove the thick, heavily compacted overburden adjacent to the highway. With the exception of a 15-m gap to allow vehicular access to the site



Figure 3.12. Stripping topsoil from Ayers Town with a mini-excavator during the summer 2010 field season. View to southeast.

from the highway, all of the area between the high-pressure gas pipeline corridor and the edge of the highway embankment was excavated. This excavation exposed about 445 sq m and extended both east and west beyond the suspected edges of the site.

At the western edge of the excavation, subsoil was encountered about 20 cm below surface; however, the layers of fill dirt were substantially thicker at the eastern and southern edges, being as much as 1.5 m thick. Although no graves or other large archaeological pit features were encountered, four small, cob-filled smudge pits (Features 40, 57, 58, and 65) were uncovered near the north edge of the excavation. The presence of these typically shallow features indicates that little of the subsoil was cut away along the south edge of the site when the highway was built.

The remainder of the site, including the gas pipeline corridor, was mechanically stripped during the fall 2010 field season (Figure 3.15). This area encompassed about 2,545 sq m and contained the remaining archaeological features associated with Ayers Town. During the 5.5-week fall field season, 100 archaeological features were identified, mapped, and excavated, and 12 additional graves were identified and mapped.

Mapping and Excavation of Archaeological Features

One hundred and ninety-one archaeological features were recorded at Ayers Town (Figure 3.16). Of these, 167 were determined upon excavation to represent cultural activities at the site.



Figure 3.13. Mapping the outlines of graves revealed by mechanical stripping of Ayers Town during the summer 2010 field season. View to southeast.

They represent 22 cellar pits and storage pits, 16 clay borrow pits, 45 smudge pits, 40 postholes, 31 graves, five refuse-filled stump holes, two probable Archaic hearths, and five other small pits, and an erosional gully (Feature 102) with refuse deposits. The remaining 24 features were determined to be stump holes or other disturbances of natural origin. All of the non-cultural features were excavated during the summer 2010 field season; during the fall 2010 season these disturbances were investigated to determine their probable origin, but they were not recorded as archaeological features (Figure 3.17). Feature 102, a buried erosional gully sampled during the fall season, provided important information about the erosional history of the site (see Appendix A).

All archaeological features were initially encountered at the base of plow zone. Prior to excavation, each feature was trowelled, photographed, and mapped with a total station. After describing the fill characteristics (i.e., color, texture, content) at the top of the pit, it was excavated in one of two ways. Small pits interpreted as possible postholes (including those later determined to be stump holes based on fill content and basal profile characteristics) and most charcoal-filled pits (i.e., smudge pits) were excavated as a single zone and were not bisected. The fill was scooped out with a trowel or spoon, and placed in a plastic trash bag. All fill from postholes was waterscreened through 1/16-inch window screen; fill from smudge pits was processed by flotation to recover botanical materials.

Other features were bisected and excavated by halves in order to expose and document the fill structure in profile (Figure 3.18). While some of these features contained a single fill zone,



Figure 3.14. Exposing the top of subsoil surface near the SC Highway 5 embankment. View to west.



Figure 3.15. Mechanically stripping topsoil to expose the top of subsoil surface near Feature 102 at the northwest edge of the site. View to northwest.



Figure 3.16. Map showing both cultural (in brown) and non-cultural (in blue) archaeological features recorded at Ayers Town by hand excavation and mechanical stripping. The anomalies at the center and northwest edge of the stripped area are modern bulldozer cuts and adjacent spoil piles. Contour interval = 20 cm (elevations reference an arbitrary datum).

many (cellars and storage pits in particular) had complex fill structures and contained multiple zones of contrasting fill. Fill from each zone (in each half) was excavated and processed separately. Artifacts encountered during excavation of a feature zone usually were removed and bagged separately, and a sample of fill dirt, usually 10-liters in volume, also was taken for later processing by flotation. The remaining fill was bagged and waterscreened through 1/16-inch window screen (Figure 3.19). Unusually rich fill zones in some features were processed entirely by flotation. Once the first half of a feature was completed, the exposed fill profile was trowelled, photographed, and mapped both by hand using a line level and folding rulers, and with a total station. Afterwards, the remaining half was excavated in similar fashion. Upon completion, the entire feature was again trowelled, photographed, and mapped.



Figure 3.17. Excavating features and stripping topsoil along the high-pressure gas pipeline corridor. View to east.

Spatial Relationship Between Plow Zone Artifacts and Archaeological Features

Artifacts contained within the plowed soil at Ayers Town are derived from two probable sources: (1) discarded refuse that accumulated, either intentionally or unintentionally, on the ground surface while the town was occupied; and (2) discarded refuse what was used by the town's occupants to fill in pits once they had served their usefulness. With the initiation of agricultural plowing, artifacts from the surface and the tops of pit features would have been incorporated into the now-disturbed topsoil, and the integrity of their spatial relationship to their original points of origin would have diminished with subsequent plowing episodes and also with other post-depositional processes such as soil erosion. The documentation of laminated sediments within Feature 102, indicating sheet wash, and the accumulation of thick, artifact-bearing deposits of topsoil at the northern periphery of Ayers Town both suggest that extensive soil erosion occurred after the site's abandonment and that this erosion resulted in substantial lateral movement and removal of artifacts from the site's surface.

In order to examine the degree to which the spatial distribution of surviving artifacts within the topsoil corresponds to the site's structure as defined by the spatial configuration of cultural features, artifact density maps derived from shovel testing, metal detecting, and systematic test excavations were superimposed on the plan of mapped features. Figure 3.20 shows the density of pottery recovered from feature fill. The greatest quantities of pottery were recovered from



Figure 3.18. Excavating the northwest half of Feature 69, a storage pit with multiple fill zones. View to southeast.



Figure 3.19. Waterscreening soil from excavated features through 1/16-inch window screen.

three features—Feature 73 (n=573) and Feature 107 (n=858) along the northern edge of the site and Feature 140 (n=715) at the southwestern edge. Lesser quantities were recovered from Feature 123 (n=314) at the western edge and Feature 163 (n=423) at the southeastern site edge. If the surviving artifacts within the topsoil derive in part from plowed out feature fill and have not been substantially displaced by plowing or erosion, then their spatial distributions should show some correspondence to the locations of these "high potsherd density" features. Figures 3.21 and 3.22, which indicate potsherd density based on shovel testing and test unit excavation, respectively, show no correspondence between the two. Furthermore, block excavations placed over or adjacent to archaeological features did not yield substantially more or larger fragments of pottery than excavations in other areas of the site. The results of metal detecting, shown in Figure 3.23, likewise show little to no spatial relationship between recovered metal artifacts and feature location.

There also does not appear to be a particularly strong relationship between potsherd and metal artifact distributions and the larger feature areas that are interpreted as domestic or household areas—areas centered upon clusters of presumed sub-floor storage facilities (see Chapter 5 for a more in depth examination of site structure). In fact, potsherd densities indicated by shovel testing and unit excavations are highest in areas where the cemeteries and hypothesized road through the center of the site are located (see Figures 3.21 and 3.22; also see Chapter 5). These are not areas where refuse disposal might be expected or predicted. Shovel testing does indicate lesser pottery concentrations adjacent to several feature clusters, and it is possible that these are residual signatures of peripheral cabin middens.

In conclusion, the distribution of pottery and metal artifacts within the disturbed topsoil does not correspond particularly well with the distribution of cultural features at the site, and this lack of correspondence is best explained by the lateral displacement of both artifacts and soil by processes of erosion. For this reason, comparative analysis of households identified at Ayers Town focused on the contents of pit features rather than the artifact samples retrieved from testing and block excavations.

[Section Removed]







Figure 3.21. Density map of artifacts recovered by systematic shovel testing with superimposed map of archaeological features.

CHAPTER 3



Figure 3.22. Density map of artifacts recovered from 1x1-meter test units with superimposed map of archaeological features.



Figure 3.23. Density map of artifacts recovered by metal detecting with superimposed map of archaeological features.

Conclusion

Archaeological investigations at Ayers Town between April 20, 2010 and January 6, 2011 consisted of comprehensive exploration of the site using metal detectors and soil augers, systematic sampling of plow zone deposits through the hand excavation of 110 1x1-meter units, and the removal of topsoil from the remainder of the site using heavy machinery. This resulted in the complete exposure of the site at the top-of-subsoil level, the identification of 191 archaeological features, and the recovery of more than 20,000 artifacts. One hundred and seventy of the features were determined to be of cultural origin, and all but two are attributed to Catawba occupation of the site in the late eighteenth century. These archaeological remains represent sporadic site use during the Archaic and Woodland periods, and a more substantial Catawba town that was occupied between 1781 and about 1800. The spatial arrangement of features suggests that Ayers Town consisted of at least a dozen structures within five residential complexes and that the community was oriented along a road that ran along the terrace crest. Additional houses likely were scattered along this road both north and south of the excavation area.
Chapter 4

EVIDENCE FOR NON-HISTORIC CATAWBA SITE USES

The Ayers Town site was occupied numerous times during the 10,000 years preceding the establishment of a Catawba town there in 1781. Likewise, the site was used for agricultural and other purposes after Ayers Town was abandoned. Evidence for these earlier and later cultural activities are represented by two archaeological features and more than 2,100 artifacts recovered during excavation. Numerous additional modern artifacts recovered during metal detecting and plow zone excavations, including wire nails, fencing staples, barbed wire fragments, tractor parts, shotgun shells, and beer cans, were discarded in the field.

The earliest culturally diagnostic artifacts from Ayers Town—two Hardaway-Dalton projectile points—indicate that the site was being visited by hunters and gatherers by the end of the late Paleoindian period, or about 8,500 BC (Ward and Davis 1999:24–25). The presence of other projectile point types, including Kessell Side-Notched, Kirk Corner-Notched, Stanly Stemmed, Morrow Mountain Stemmed, Guilford Lanceolate, Halifax Side-Notched, and Savannah River Stemmed, indicate several additional occupations of the site during the subsequent Archaic period (c. 8,000–1,000 BC). These occupations likely were both temporary and sporadic. Other triangular and small stemmed projectile points, as well as 43 small, heavily eroded, sand-tempered and crushed rock-tempered pottery fragments, suggest the site also was used as a temporary encampment during the Early or Middle Woodland periods (c. 1,000 BC–AD 800). Although one ground-stone celt was recovered, there is no other evidence that the site was occupied during Late Woodland and Mississippian times (i.e., between about AD 800 and 1700).

Archaeological Features

Two small hearths were revealed during mechanical stripping of the site. While no culturally diagnostic artifacts were associated with either feature, it is suspected that they are attributable to one of the Archaic or Woodland occupations. Features 31 and 60 were located near the center of the site, about six meters from one another (Figure 4.1). Both were shallow basins filled with fire-broken rocks and heavily leached fill (see Chapter 5 and Appendix A for more detailed descriptions of these facilities). Such archaeological features have not been observed at other late eighteenth-century and early nineteenth-century Catawba sites.

Late Paleoindian, Archaic, and Woodland Artifacts

Artifacts attributable to the Late Paleoindian, Archaic, and Woodland occupations at Ayers Town include chipped-stone projectile points, bifaces, bifacial knives, scrapers, a perforator, worked flakes, chipped-stone production debris (i.e., cores and unmodified flakes), a celt, hammerstones, a nutting stone, a grinding stone, and both soapstone and ceramic vessel fragments. These artifacts were recovered during metal detecting, from disturbed plowed soil in



Figure 4.1. Feature 60, a probable Archaic or Woodland hearth.

hand-excavated units, while mechanically stripping the site, and from the fill of historic Catawba pit features. Their presence in these latter contexts is not surprising, given that they are fairly ubiquitous across the site and could easily be incorporated into the fill dirt.

Chipped-Stone Projectile Points

Ninety projectile points and point fragments were recovered from Ayers Town. They can be attributed to the Late Paleoindian (n=2), Early Archaic (n=14), Middle Archaic (n=23), and Late Archaic (n=7) periods. Thirteen other unclassified small stemmed and small lanceolate projectile points likely are associated with the Late Archaic or Early Woodland periods. All are thought to have served primarily as sharp, durable tips for atlatl darts. These artifacts mostly were recovered from disturbed plow zone deposits; the remainder came from pit feature fill where they are interpreted as incidental inclusions. Projectile points are described by type below and summarized in Table 4.1. Examples of each type found at Ayers Town are illustrated in Figure 4.2.

Hardaway-Dalton. Two heavily weathered projectile points, identified as probable Hardaway-Daltons or Hardaway-Dalton-like, were recovered from plowed soil within Squares 860R170 and 868R166. One was made of rhyolite, while the other appears to be made of an unidentified meta-sedimentary rock. Joffre Coe (1964:64) described the *Hardaway-Dalton* projectile point type as having a "broad, thin blade with deeply concave bases and shallow sidenotches. Bases and sidenotches were ground and edges were frequently serrated." Both specimens generally conform to this description. The Hardaway-Dalton type is associated with

Туре	Context	Material	L	W	ТН	Comment
Hardaway-Dalton	Sq. 860R170	Meta-Sedimentary	39	28	7	basally thinned, ears missing
Hardaway-Dalton	Sq. 868R166	Metavolcanic?	37	25	6	heavily weathered
Kessell Side-Notched	Sq. 864R167	Metavolcanic	79	32	7	concave base, bevelled
Kirk Corner-Notched	Backdirt	Quartz	29	16	7	basally ground, ear missing
Kirk Corner-Notched	Stripping	Quartz	34	22	8	serrated
Kirk Corner-Notched	Stripping	Quartz	26	20	7	
Kirk Corner-Notched	Feature 124	Metavolcanic	-	23	8	basally ground, tip missing
Kirk Corner-Notched	Feature 140	Ouartz	28	23	8	basally ground
Kirk Corner-Notched	Feature 185	Metavolcanic	40	26	7	basally ground, beveled
Kirk Corner-Notched	Sq. 860R200	Quartz	-	17	8	basally ground, serrated, beveled resharpening tip missing
Kirk Corner-Notched	Sq. 863R166	Quartz	30	18	7	basally ground, beveled resharpening, basal impact scar
Kirk Corner-Notched	Sq. 869R169	Metavolcanic	49	25	8	drill
Kirk Corner-Notched	Sq. 870R170	Metavolcanic	29	24	6	basally ground, beveled resharpening, basal impact scar
Kirk Corner-Notched	Sq. 873R157	Quartz	26	21	7	basally ground, serrated
Kirk Corner-Notched	Sq. 876R193	Metavolcanic	27	20	5	basally ground, basal impact scar
Kirk Corner-Notched	Sq. 876R193	Metavolcanic	-	24	6	beveled resharpening, tip & ears missing
Stanly Stemmed	Stripping	Quartz	-	35	13	tip & tip of base missing
Stanly Stemmed	Sq. 890R170	Metavolcanic	44	31	8	
Morrow Mtn. Stemmed	Stripping	Quartz	-	26	13	crudely made, tip missing
Morrow Mtn. Stemmed	Stripping	Metavolcanic	-	22	10	tip of base missing
Morrow Mtn. Stemmed	Stripping	Quartz	-	18	9	tip missing
Morrow Mtn. Stemmed	Feature 5	Metavolcanic	-	23	8	tip missing
Morrow Mtn. Stemmed	Feature 61	Quartz	-	23	11	tip missing
Morrow Mtn. Stemmed	Metal Detecting	Metavolcanic	38	27	9	
Morrow Mtn. Stemmed	Sq. 875R195	Quartz	41	20	11	
Morrow Mtn. Stemmed	Sq. 875R195	Metavolcanic	-	23	9	tip of base missing
Morrow Mtn. Stemmed	Sq. 883R191	Quartz	-	24	10	tip missing
Morrow Mtn. Stemmed	Sq. 883R193	Quartz	-	20	7	tip missing
Morrow Mtn. Stemmed	Sq. 883R193	Quartz	-	-	10	tip, lateral edge & tip of base missing
Guilford Lanceolate	Feature 107	Metavolcanic	-	20	11	tip missing
Guilford Lanceolate	Sq. 875R192	Metavolcanic	-	21	10	tip missing
Guilford Lanceolate	Sq. 876R191	Metavolcanic	-	22	10	tip missing
Guilford Lanceolate	Sq. 876R194	Metavolcanic	50	21	9	
Guilford Lanceolate	Sq. 877R195	Metavolcanic	-	21	9	base missing
Guilford Lanceolate	Sq. 878R191	Metavolcanic	-	22	10	tip missing
Guilford Lanceolate	Sq. 878R194	Metavolcanic	-	22	9	tip missing
Guilford Lanceolate	Sq. 885R189	Metavolcanic	-	21	9	tip missing
Halifax Side-Notched	Feature 155	Quartz	-	22	9	tip missing
Halifax Side-Notched	Sq. 875R193	Quartz	-	24	11	tip missing
Savannah River	Feature 4	Quartz	54	32	12	heavily resharpened
Savannah River	Feature 60	Quartz	65	29	14	heavily resharpened
Savannah River	Feature 89	Quartz	-	43	20	distal half missing
Savannah River	Sq. 860R210	Quartz	-	28	13	tip missing
Savannah River	Sq. 876R193	Quartz	-	27	12	tip missing
Savannah River	Sq. 878R192	Quartz	-	47	16	tip missing

Table 4.1. Projectile Points Recovered at Ayers Town.

CHAPTER 4

Table 4.1 Continued.

Туре	Context	Material	L	W	ТН	Comment
Savannah River	Sq. 878R194	Metavolcanic	-	36	10	tip missing
Savannah River	Sq. 885R192	Metavolcanic	-	29	10	tip missing
Small Stemmed	Stripping	Quartz	-	21	9	tip missing
Small Stemmed	Stripping	Quartz	47	25	11	
Small Stemmed	Feature 162	Metavolcanic	-	-	-	squared stem
Small Stemmed	Sq. 875R193	Quartz	-	-	-	squared stem fragment
Small Stemmed	Sq. 877R192	Quartz	-	-	-	squared stem fragment
Small Stemmed	Sq. 880R190	Quartz	-	-	-	squared stem fragment
Small Stemmed	Sq. 884R190	Metavolcanic	-	22	8	tip missing
Small Stemmed	Sq. 884R191	Quartz Crystal	31	23	7	
Small Stemmed	Sq. 912R170	Metavolcanic	-	19	6	tip & tip of base missing
Small Lanceolate	Stripping	Quartz	33	21	8	slight shoulders
Small Lanceolate	Feature 69	Metavolcanic	48	25	7	slight shoulders
Small Lanceolate	Sq. 876R195	Metavolcanic	32	20	6	small, ovoid point
Small Lanceolate	Sq. 878R161	Quartz	-	22	7	tip missing
Fragment	Stripping	Metavolcanic	-	-	-	mid-section
Fragment	Stripping	Metavolcanic	-	-	-	tip
Fragment	Feature 122	Quartz	-	-	-	tip
Fragment	Feature 163	Metavolcanic	-	-	-	tip
Fragment	Feature 69	Metavolcanic	-	-	-	mid-section
Fragment	Feature 89	Metavolcanic	-	-	-	mid-section (Guilford?)
Fragment	Feature 92	Metavolcanic	-	-	-	tip
Fragment	Sq. 860R171	Metavolcanic	-	-	-	mid-section
Fragment	Sq. 868R209	Quartz	-	-	-	tip
Fragment	Sq. 870R166	Quartz	-	-	-	tip
Fragment	Sq. 870R190	Metavolcanic	-	-	-	tip
Fragment	Sq. 870R190	Metavolcanic	-	-	-	mid-section
Fragment	Sq. 870R209	Quartz	-	-	-	mid-section
Fragment	Sq. 870R209	Metavolcanic?	-	-	-	tip
Fragment	Sq. 870R209	Quartz	-	-	-	tip
Fragment	Sq. 870R209	Quartz	-	-	-	tip
Fragment	Sq. 871R155	Quartz	-	-	-	tip, large (Savannah River?)
Fragment	Sq. 872R155	Quartz	-	-	-	mid-section, serrated edges (Kirk?)
Fragment	Sq. 875R191	Quartz	-	-	-	tip
Fragment	Sq. 876R192	Quartz	-	-	-	distal half (Savannah River?)
Fragment	Sq. 876R194	Quartz	-	-	-	mid-section, large & crude (Savannah River?)
Fragment	Sq. 877R161	Metavolcanic	-	-	-	mid-section (Guilford?)
Fragment	Sq. 877R191	Metavolcanic	-	-	-	tip
Fragment	Sq. 877R195	Metavolcanic	-	-	-	tip, large (Savannah River?)
Fragment	Sq. 878R193	Quartz	-	-	-	tip
Fragment	Sq. 878R195	Quartz	-	-	-	tip, large (Savannah River?)
Fragment	Sq. 879R193	Quartz	-	-	-	tip
Fragment	Sq. 880R210	Metavolcanic	-	-	-	small stem
Fragment	Sq. 881R179	Metavolcanic	-	-	-	tip
Fragment	Sq. 884R190	Metavolcanic	-	-	-	tip (Guilford?)
Fragment	Sq. 890R181	Metavolcanic	-	-	-	tip
Fragment	Sq. 890R190	Quartz	-	-	-	tip

 $L-\mbox{length};\,W-\mbox{width};\,TH-\mbox{thickness.}\,$ All measurements are in millimeters.

ARCHAIC, WOODLAND, AND MODERN COMPONENTS



Figure 4.2. Projectile points recovered from Ayers Town.

the late Paleo-Indian period (before 8,000 BC) in the central Carolina Piedmont (Coe 1964; Ward 1983).

Kessell Side-Notched. One projectile point recovered from Square 864R167 was classified as Kessell Side-Notched. This point has distinct side notches, a slightly concave base, and edge serrations. It is made of a heavily patinated, fine-grained rhyolite and likely is associated with the better-represented Early Archaic Kirk component at the site. The Kessell Side-Notched type, first recognized at the St. Albans site in southern West Virginia, was reported by Bettye Broyles as being represented in the lower, Early Archaic strata at that site. The specimen from Ayers Town closely resembles the one illustrated by Broyles from St. Albans (Broyles 1971:Figure 26m).

Kirk Corner-Notched. Thirteen projectile points from Ayers Town were classified as Kirk Corner-Notched, a predominant point type of the Early Archaic period (ca. 8,000–6,000 BC) in the southeastern United States and the best represented point type at the site. Being first recognized at the Hardaway site, located about 95 km northeast of Ayers Town, Coe (1964:69) described the Kirk Corner-Notched projectile point type as having "a large triangular blade with a straight base, corner-notches, and serrated edges." Most of the points from Ayers Town have been heavily resharpened, and are made of vein quartz; the remaining ones are made of rhyolite and are heavily patinated. Seven points were recovered from plowed soil in hand-dug units; the others came from backdirt and backhoe stripping, and from the fill of Features 124, 140, and 185, where they are interpreted as incidental inclusions. The frequent occurrence of worn out and discarded Kirk points, along with the presence of several formal end scrapers, suggest that the site may have served as a base camp during the Early Archaic period.

Stanly Stemmed. The Stanly Stemmed projectile point type is characterized by a broad, triangular blade and a small, squared stem that often has an indented base (Coe 1964:35). Points of this type date to the early Middle Archaic period (ca. 6,000–5,500 BC) and were found in stratified contexts at the Doerschuk site in piedmont North Carolina (Coe 1964:35) and in southeast Tennessee at the Icehouse Bottom, Howard, and Calloway Island sites (Chapman 1977, 1979). The two specimens from Ayers Town Came were recovered during backhoe stripping of plowed soil and from the plow zone of Square 890R170.

Morrow Mountain II Stemmed. Eleven projectile points were classified as Morrow Mountain II Stemmed, making this the second most frequent type represented at Ayers Town and indicating a significant Middle Archaic component at the site. A majority of these specimens were made of vein quartz. Two came from the fill of Features 5 and 61; the others came from the plow zone. According to Coe (1964:37), this projectile point type is defined by a long, narrow blade and a tapered stem (Coe 1964:37). The Morrow Mountain II type is associated with the Middle Archaic period (ca. 5,500–5,000 BC) and has been recovered in stratified context at the Doerschuk site in piedmont North Carolina (Coe 1964), and at the Icehouse Bottom and Howard sites in southeast Tennessee (Chapman 1977, 1979).

Guilford Lanceolate. The Guilford Lanceolate projectile point type is defined by "a long, slender, but thick blade with straight, rounded, or concave base" (Coe 1964:43). Based upon excavations at the Doerschuk and Gaston sites in piedmont North Carolina, Coe (1964:44, 118) has suggested that this Middle Archaic point type dates between about 5,000 BC and 4,000 BC.

Eight Guilford Lanceolate points were recovered from Ayers Town. Seven came from the plow zone; the remaining specimen came from Feature 107 fill. Unlike most other point types represented at the site, all Guilford points were made of rhyolite and other varieties of metavolcanic stone.

Halifax Side-Notched. Coe (1964:108) describes the Halifax Side-Notched type as having a "slender blade with slightly restricted base. Shallow side-notches. Base and side-notches were usually ground. The material most frequently used was vein quartz." The stratigraphic position of Halifax materials between Guilford and Late Archaic Savannah River strata at the Gaston site indicate a late Middle Archaic temporal association (Coe 1964:118). The two specimens from Ayers Town came from Feature 107 fill and the plow zone. Both are made of vein quartz and conform to the Halifax type description.

Savannah River Stemmed. Though initially described by Claflin (1931) at the Stallings Island site, the stratigraphic position of the Savannah River Stemmed projectile point type was first documented by Coe (1964) at the Doerschuk, Lowder's Ferry, and Gaston sites, where points of this type were found in strata above those containing Middle Archaic Guilford Lanceolate and (at the Gaston site) Halifax Side-Notched points. Coe (1964:44) described this Late Archaic projectile point type as having "a large, heavy, triangular blade with a broad stem." Savannah River Stemmed projectile points have since been radiocarbon dated to 3,000–1,800 BC at the Bacon Bend site in southeast Tennessee (Chapman 1981). The eight Savannah River points from Ayers Town conform to this description, though they are not as large as the rhyolite specimens recovered from Lowder's Ferry and Doerschuk sites, both located near rhyolite quarries within the Uwharrie Mountains. All but two of the Ayers Town points are made of vein quartz; the others are made of rhyolite. These Savannah River Stemmed points, two fragments of carved soapstone bowls, and perhaps some of the unidentified small stemmed points described below document a Late Archaic encampment at the site.

Unidentified Small Stemmed. Nine small stemmed points and fragments of small stemmed points were recovered which do not readily conform to a defined projectile point type. Oliver (1985) has argued that what he terms the Piedmont Tradition of stemmed projectile points, represented by the Late Archaic Savannah River Stemmed type as well as smaller stemmed variants such as Gypsy Stemmed and Swannanoa Stemmed, continued into the Early Woodland period and preceded the adoption of the bow and arrow. This hypothesis is reasonable and would account for the presence in small amounts of Woodland pottery at Ayers Town in the absence of triangular Woodland projectile points.

Unidentified Small Lanceolate. Four small ovoid or lanceolate points were recovered that do not conform to an established projectile point type. They may represent crude or very early triangular points; conversely, some may be heavily resharpened Guilford Lanceolate points. A Middle-Late Archaic or Early Woodland cultural association is assumed.

Unidentified Projectile Point Fragments. Thirty-one fragments of chipped-stone projectile points were recovered which cannot be typologically identified with confidence. Twenty-one are tip fragments, nine are mid-section fragments, and one is a small base fragment. Size, edge configuration, and workmanship characteristics suggest this group may include one Kirk Corner-Notched, three Guilford Lanceolate, and five Savannah River Stemmed specimens.

CHAPTER 4

Other Chipped-Stone Tools

Seventy-two chipped-stone artifacts other than projectile points were recovered. They include bifaces, end scrapers and other scrapers, a perforator, and worked flakes. All of these artifacts are associated with pre-Catawba occupations of the site.

Bifaces. Thirty-three chipped-stone bifaces and fragments of bifacially worked flakes were recovered from plowed soil and feature fill. Most (n=25) of these are made of vein quartz; the remainder are made of rhyolite (now heavily patinated) and other metavolcanic stone. Seven of these appear to represent projectile point performs, including a probable Guilford perform and a probable Savannah River perform. Another quartz specimen appears to be the proximal half of an adz, which likely is associated with the late Paleo-Indian or Early Archaic site occupations. The remaining bifaces and biface fragments represent the early-stage manufacture of projectile points and other bifacial tools.

End Scrapers. End scrapers are unifacial, chipped-stone tools that have a roughly triangular, "teardrop" shape defined by a tapered proximal end and a broad, straight to slightly convex distal end that has been finely and steeply retouched. Specimens sometimes exhibit graver spurs and polish along the distal working edge. Artifacts conforming to these characteristics have been recovered mostly in late Paleo-Indian and Early Archaic contexts in the Southeast (Chapman 1977; Coe 1964; Daniel 1998) and are interpreted as hafted hide scrapers. Fifteen end scrapers were recovered from Ayers Town, where they are attributed to the early occupations represented by Kirk Corner-Notched and Hardaway-Dalton projectile points. Two-thirds are made of vein quartz (the remainder are made of metavolcanic stone), and nine are complete but heavily resharpened and worn out tools that likely were replaced at the site. These nine scrapers are generally consistent in size, ranging from 24–32 mm in length, 24–30 mm in width, and 7–12 mm in thickness. Two unique specimens, both made of vein quartz, include a small "thumbnail" end scraper (21 mm long, 19 mm wide, 9 mm thick) and a much larger end scraper perform (62 mm long, 29 mm wide, 14 mm thick) that was completely shaped but lacked a prepared (i.e., retouched) working edge.

Other Scrapers. Four other unifacially worked flakes were found that can be characterized as scrapers. Three of these are elongate flakes that have been steeply retouched along one edge; the fourth is an oval flake fragment that has a retouched convex edge. The cultural association of these artifacts is unknown.

Perforator. A single specimen was classified as a probable perforator. It appears to be a small lanceolate quartz projectile point that was unifacially retouched at the distal end to produce a narrow, triangular working edge. This edge configuration indicates a probable function related to boring holes in hides or other soft materials.

Worked Flakes. Nineteen chipped-stone flakes were recovered from Ayers Town which exhibit retouch along one or more margins. A majority (n=10) of these are made of metavolcanic stone (mostly rhyolite); the remainder are either vein quartz (n=5), quartz cobble (n=1), or quartz crystal (n=3). Worked flakes are thought to have functioned primarily as *ad hoc* cutting tools.

Chipped-Stone Production Debris

Most chipped-stone artifacts from Ayers Town can be characterized as debris resulting from the production of stone tools. These artifacts were placed into one of two categories—cores and flakes.

Cores. A core is defined as any mass of knappable raw material from which one or more flakes have been detached. As such, cores represent the parent material from which chippedstone tools were manufactured. Seventeen cores were recovered from excavations at Ayers Town. As with other chipped-stone artifacts, they were scattered among a variety of contexts, including excavated plow zone, feature fill, and surface finds collected during backhoe stripping. The seven specimens from historic Catawba features are regarded as incidental inclusions. All cores are amorphous in form, and all but two are vein quartz. The other two are quartzite stream cobbles from which multiple flakes have been removed. While quartz may have been quarried from veins exposed in the surrounding uplands, the presence of water-worn cortex on a few (<2%) quartz flakes indicates that some of this material was derived from alluvial cobbles in the nearby river or along eroding terrace edges. Conversely, two-thirds of all quartzite flakes exhibited water-worn cortex on the dorsal surface.

Flakes. Nineteen hundred and fifteen unmodified chipped-stone flakes were recovered from plow zone excavation (n=1,110), feature fill (n=785), backhoe stripping (n=17), and metal detecting (n=3) at Ayers Town. Almost 95% were made of metavolcanic stone (49.2%) or vein quartz (45.4%); the remainder were made of quartzite (3.0%), quartz crystal (2.1%), and Allendale chert (0.3%). The nearly equal frequency of metavolcanic and vein quartz specimens is consistent with the raw material distribution of projectile points (i.e., an equal number of metavolcanic and vein quartz projectile points were recovered). However, while numerous quartz cores were recovered, no metavolcanic cores were found. This indicates that, whereas vein quartz flakes likely were the products of core reduction and chipped-stone tool production, maintenance, and recycling, metavolcanic flakes almost entirely reflect flintknapping activities associated with tool production and maintenance. This conclusion is supported by the near absence (1.1%) of decortication flakes among the metavolcanic flakes.

Finally, the predominant representation of tool production and maintenance, as opposed to primary core reduction, is also indicated by the size distribution of flakes. About 20% of metavolcanic and vein quartz flakes were less than 1 cm in diameter, and 80% were less than 2 cm in diameter. Only a single metavolcanic flake was larger than 6 cm in diameter. Unfortunately, very little evidence exists for associating debitage with specific Archaic or Woodland occupations indicated by other diagnostic artifact categories. The five Allendale chert flakes, representing the only non-local lithic material within the flake sample, probably are associated with the earliest occupations, when hunter-gatherer band mobility was greatest. With a source area along the lower Savannah River drainage, discarded Allendale chert tools and debitage occur infrequently on archaeological sites in the upper North Carolina–South Carolina Piedmont, but have been reported in Early Archaic contexts as far north as Hardaway, located about 95 km northeast of Ayers Town (Daniel 1998:126–127). Feature 60, the only non-historic feature at Ayers Town that contained artifacts, yielded 14 flakes but no culturally diagnostic artifacts. Ten of the flakes were vein quartz; the remainder were metavolcanic.

CHAPTER 4

Ground-Stone Artifacts

Eleven ground-stone artifacts were recovered which, based on stylistic and morphological characteristics, are thought to be associated with earlier Archaic or Woodland activities at the site. Several of these were recovered from historic Catawba feature fill, suggesting that they may have been collected and used or recycled by Ayers Town residents.

Celt. The distal half of a tapered-poll, ground-stone celt was recovered from the lower fill of Feature 123, a deep storage pit. It is made of diorite and measures 69 mm long (broken), 41 mm in maximum width at the bit, and 29 mm thick. This specimen is similar in size and form to celts reported from: (1) Town Creek and attributed to the South Appalachian Mississippian Pee Dee culture (Coe 1995:215); and (2) the early Late Woodland Holt site in the central North Carolina Piedmont (Ward and Davis 1993:71). Its presence at Ayers Town is unexplained: it may have been discarded at the site by an earlier Late Woodland or Mississippian Indian, or it may have been found elsewhere and brought back to Ayers Town by one of its residents. No other artifacts from Ayers Town have a clear South Appalachian Mississippian or Late Woodland cultural association.

Hammerstones. Six hammerstones were recovered. Three of these are relatively large specimens that can be confidently attributed to earlier Archaic or Woodland activities based on morphological characteristics. They are roughly circular to oblong in shape and range from 75–97 mm in length, 66–74 mm in width, and 37–42 mm in thickness. Made of granite (n=2) or metasandstone (n=1), all have heavily abraded edges and two have shallow-pitted faces, indicating that they also were used as anvils. The metasandstone specimen has one ground face, suggesting that it also functioned as a mano.

The other three specimens are flat, quartzite stream cobbles with abraded margins. While they are interpreted as hammerstones, the abraded edges may be the result of mechanical weathering and not a product of their use as hammers. All three specimens, as well as one of the pitted hammerstones, were found in feature fill; the other two came from the plow zone.

Nutting Stone. A large fragment of a nutting stone was recovered from Feature 155. It is made of coarse-grained soapstone and is 22 cm long, 14 cm wide, and 7 cm thick. This specimen appears to represent about one quarter of the original implement, which would have been about 26 cm in diameter and roughly circular. One surface is deeply concave, indicating that it likely served as a milling stone before being used as a nutting stone by the grinding of multiple cup-shaped depressions into both faces. The presence of several cut marks along one of the broken edges suggests that it may have been recycled further after its use as a nutting stone.

As the name implies, nutting stones are thought to have been used as anvils for processing nuts, and their use has been reported ethnographically (Lee 1979:151, 198–199). This specimen likely represents "site furniture" from an earlier occupation at Ayers Town. Its potential use by Catawba residents at the site is unclear; however, its importance may have been related more to its size than its original function (see below).

Grinding Stone. One possible grinding stone fragment, made of granite, was recovered from the same feature context (Feature 155, North 1/2, Zone 3) as the nutting stone just described. It

is similar in size, measuring 18 cm long, 13.5 cm wide, and 6.5 cm thick. While not heavily used, one surface is slightly concave, suggesting that it once functioned as a grinding surface.

Soapstone Potsherds. Two fragments of carved soapstone pots were recovered from plow zone excavations. They range from 14–41 mm in diameter and 10–14 mm in thickness. Soapstone vessels in the Carolina Piedmont are associated with the Late Archaic period (Coe 1964), and at Ayers Town they likely are associated with the occupation that produced the Savannah River Stemmed projectile points.

Woodland Potsherds

Forty-three of the 17,177 potsherds recovered from Ayers Town are attributed to an earlier Woodland period site occupation. These sherds are distinguished from the rest of the pottery sample by temper, texture, color, surface treatment, and overall condition. Whereas most of the pottery from Ayers Town and the contemporary site of Old Town, attributable to late eighteenthcentury Catawba potters, contains no visible temper and has a generally smooth texture, these sherds have a rough or gritty texture and are tempered with coarse sand (n=23), medium-sized crushed quartz (n=15), a mixture of fine crushed quartz and crushed feldspar (n=3), or coarse sand with sparse, medium-sized crushed quartz inclusions (n=2). While the Catawba-made pottery from Ayers Town and Old Town varies greatly in color, ranging from very pale brown (10YR 8/4) to reddish yellow (7.5YR 6/6) to black 10YR 2/1), the sherds attributed to the Woodland period represent a consistent, narrow spectrum of colors ranging from dark brown (7.5YR 4/4) to dark yellowish brown (10YR 4/4). These differences likely are related both to patterns of clay procurement and methods of firing. Because of the generally small size and eroded condition of the Woodland sherds, probable surface treatment could be identified on only three specimens. Two appear to be cordmarked, while the third exhibits faint warp and weft impressions associated with fine fabric marking. Most pottery vessels made in the central Carolina Piedmont during the Early Woodland and Middle Woodland periods were conoidal cooking or storage jars, hand-built by coiling and stamped with a cord-wrapped paddle or with a simple twined fabric (Blanton et al. 1986; Coe 1964; Ward and Davis 1999). The two rim sherds in the sample represent vessels with rounded lips and straight rims, and one has oblique notches or ticks along the outside rim edge, a decorative attribute not seen on Catawba vessels postdating 1760.

The 43 Woodland sherds found at Ayers Town likely are associated with at least some of the unidentified small stemmed (n=9) and small lanceolate (n=4) projectile points discussed earlier, and together they document a minor occupation of the site during the Early Woodland or Middle Woodland periods. This occupation likely dates no earlier than about 1,000 BC or later than about AD 800. Ceramic evidence for limited activity during the Early Woodland or Middle Woodland periods also was found during excavations at the nearby Ashe Ferry site (38YK533); however, the primary cultural components at Ashe Ferry are attributable to the Late Woodland Ashe Ferry phase and early Middle Mississippian Early Brown phase, and these are not represented in the artifact sample recovered from Ayers Town.

Modern Artifacts

No evidence was found for a site occupation following the abandonment of Ayers Town; however, later land uses were represented in the archaeological record. The most obvious evidence was the plow-disturbed character of the topsoil, indicating that the site was farmed, and earlier in the twentieth century a barbed-wire fence surrounded the eastern and northern site edges. Numerous fragments and strand segments of this fence were encountered during systematic metal detecting. Metal detection survey also revealed a relatively dense band of litter (e.g., steel and aluminum beer cans, metallic wrapper fragments, etc.) along the tree line flanking the north edge of the existing highway and gas pipeline right-of-ways. These items largely postdate construction of the original SC Highway 5 bridge and were not collected.

Modern items found during metal detection survey or plow zone excavation and not discarded include: two solarized glass fragments, four fragments of barbed-wire fencing, two cast iron stove plate fragments, a mower part, a large iron knob, a fragment of copper wire, two fencing staples, a wire nail, a lock washer, and four coins. The coins all date between 1900 and 1940 and include a 1905 V-type five-cent piece, a 1916 Buffalo-type five-cent piece, a 1917 Mercury-type dime, and a 1935 Lincoln-type small cent. Some other artifacts recovered during metal detecting, particularly those made of iron and classified simply as fragments, sheet fragments, or unidentified objects may post-date the Catawba occupation at Ayers Town; however, these items are typologically indistinct and unidentifiable as to probable function or age.

Chapter 5

ARCHAEOLOGICAL FEATURES AND SITE STRUCTURE

The 2010–2011 investigations at Ayers Town designated 191 possible cultural features evident as soil disturbances intrusive into the subsoil horizon (Figure 5.1, Table 5.1, Appendix A). These intrusions were identified as potential cultural features on the basis of apparent morphology, soil matrices, or content evident upon removal of overlying plowzone or other overburden deposits. Excavation determined that 167 of these features were of cultural origin or contained deposits of cultural origin; the remaining 24 features were determined to be probable natural root molds. Two of the cultural features were rock-filled basins that appear to be hearths or cooking facilities that predate the Federal period Catawba site component; the rest of the features are attributable to the Federal period occupation. These Federal period features comprise relatively few discrete formal and functional classes, including flat-based storage pits (n=22), basin-shaped borrow pits (n=16), smudge pits (n=45), postholes (n=40), graves (n=31), other small pits (n=5), refuse-filled stump holes (n=5), and an erosional gully with refuse deposits. Spatial arrangements of these facilities indicate a regular and readily definable community plan, with discrete clusters of multiple feature types likely representing multifunction domestic residential complexes separated by small buffer zones, and other clusters of single feature types representing specialized activity precincts.

Storage Pits

Twenty-two pit features (Features 3, 4, 5, 27, 33, 55, 69, 74, 75, 106, 107, 108, 116, 123, 140, 141, 155, 158, 162, 163, 170, and 185) are provisionally categorized as storage facilities designed for retention of foodstuffs or caching of goods. These pits are distinguished by generally flat (level or slightly inclined) bases, with distinct inflections that mark base-to-wall junctures (Figure 5.2). These facilities reflect more formalized plan and construction than do basin-shaped borrow pits. Half of these flat-based pits are sub-rectangular or rectangular in plan; others are circular or ovoid. Many flat-based pits exhibit slightly-to-strongly belled walls, with maximum diameters below the pit orifice. Others evince vertical or slightly out-flaring walls (with the exception of Feature 140, which appears more trapezoidal in profile). Flat-based pits range in diameter from 41 cm to 171 cm (\bar{x} = 90.62, s.d.=27.01), with two size modes evident (<70 cm and >70 cm). Observed depths of these pits range from 8 cm to 61 cm (\bar{x} = 32.61, s.d.=15.08), with three distinct modes: <10 cm (n=3), 17–33 cm (n=13), and 43–61 cm (n=5). The shallowest flat-based pits are small (<60 cm) rectangular or subrectangular facilities, which may represent storage for household goods rather than foodstuffs that required more constant temperature and moisture regulation. Significant variation in the depths of these facilities (especially as normalized by depth/orifice diameter ratios) may also reflect differential soil deflation and loss across the site.

The deeper flat-based pits exhibit greater stratigraphic complexity than do basin-shaped pits, with multiple strata indicative of incremental filling processes. In a number of instances,



Feature	Туре	Grid Location	Length	Width	Depth	Plan
1	smudge pit	868.29R208.27	24	21	12	oval
2	posthole	868.41R209.58	29	21	24	oval
3	flat-based storage pit	869.17R208.75	92	77	32	sub-rectangular
4	flat-based storage pit	869.97R208.99	87	87	30	sub-rectangular
5	flat-based storage pit	877.83R160.57	80	79	33	circular
6	smudge pit	877.65R161.24	23	20	5	oval
7	grave	860.93R169.94	208	66	n/d	rectangular
8	posthole	882.11R196.97	26	26	43	circular
9	root mold (non-cultural)	882.35R196.25	18	18	29	circular
10	posthole	879.99R196.15	19	20	17	circular
11	root mold (non-cultural)	880.45R194.82	19	20	23	circular
12	root mold (non-cultural)	880.80R194.66	17	14	19	oval
13	root mold (non-cultural)	880.94R193.90	16	16	36	circular
14	posthole	881.69R194.08	17	16	11	circular
15	root mold (non-cultural)	881.34R193.23	15	14	11	circular
16	root mold (non-cultural)	877.11R197.20	21	17	4	oval
17	root mold (non-cultural)	878.24R199.01	19	18	9	circular
18	posthole	878.85R199.41	16	16	18	circular
19	posthole	881.07R200.19	32	31	32	circular
20	posthole	879.58R189.12	16	16	18	circular
21	root mold (non-cultural)	879.27R188.61	11	12	10	circular
22	smudge pit	872.06R192.19	22	21	6	circular
23	smudge pit	873.76R193.60	17	17	8	circular
24	smudge pit	873.76R193.75	28	23	11	oval
25	smudge pit	873.87R192.18	32	28	5	oval
26	smudge pit	873.75R192.48	28	23	11	oval
27	small pit/basin (storage pit?)	890.03R179.72	59	52	9	sub-rectangular
28	root mold (non-cultural)	871.43R195.40	33	29	30	oval
29	root mold (non-cultural)	870.78R194.91	18	16	29	oval
30	root mold (non-cultural)	870.83R194.52	11	11	25	circular
31	rock-filled pit (hearth)	871.24R191.37	37	30	7	oval
32	root mold (non-cultural)	865.24R189.20	49	45	89	oval
33	flat-based storage pit	871.71R155.12	97	93	48	sub-rectangular
34	root mold (non-cultural)	869.13R193.27	37	34	n/d	oval
35	root mold (non-cultural)	871.76R183.19	30	30	49	circular
36	grave	868.42R165.10	185	73	n/d	rectangular
37	grave	869.71R165.15	195	58	n/d	rectangular
38	grave	870.82R164.95	173	49	n/d	rectangular
39	grave	869.26R164.50	186	75	n/d	rectangular
40	smudge pit	845.43R196.13	33	31	24	circular
41	grave	862.73R190.80	191	50	n/d	rectangular
42	grave	861.69R188.74	152	48	n/d	rectangular
43	grave	861.60R187.72	96	51	n/d	rectangular
44	grave	861.80R187.37	97	52	n/d	rectangular
45	grave	861.80R186.51	97	54	n/d	rectangular
46	grave	861.85R185.45	102	48	n/d	rectangular
47	grave	866.98R180.98	95	54	n/d	rectangular
48	grave	866.51R181.73	99	50	n/d	rectangular
49	grave	866.31R182.62	181	57	n/d	rectangular
50	grave	865.65R183.50	162	54	n/d	rectangular
51	grave	862.37R184.24	185	60	n/d	rectangular
52	grave	863.78R181.01	102	58	n/d	rectangular
53	grave	863.67R182.06	183	58	n/d	rectangular

Table 5.1. Archaeological Features Defined at Ayers Town (38YK534).

Table 5.1 continued.

Feature	Туре	Grid Location	Length	Width	Depth	Plan
54	grave	863.08R183.11	201	78	n/d	rectangular
55	flat-based storage pit	877.09R189.50	171	101	23	rectangular
56	root mold (non-cultural)	872.70R154.90	24	24	n/d	circular
57	smudge pit	845.92R194.35	22	22	5	circular
58	smudge pit	846.00R193.96	49	44	7	oval
59	root mold (non-cultural)	842.83R178.85	25	23	n/d	circular
60	rock-filled pit (hearth)	875.90R187.54	54	61	15	oval
61	basin-shaped borrow pit	874.05R155.46	136	109	26	oval
62	basin-shaped borrow pit	874.03R154.57	54	46	4	irregular
63	root mold (non-cultural)	873.28R154.87	12	11	3	circular
64	root mold (non-cultural)	873.46R155.25	12	11	13	circular
65	smudge pit	846.96R196.88	32	17	8	oval
66	smudge pit	872.81R186.57	19	18	5	circular
67	refuse-filled stump hole	868.55R186.81	87	77	47	irregular
68	basin-shaped pit	866.16R157.16	105	83	29	oval
	smudge pit (within Fea 68 basin)	866 16R157 16	51	41	22	irregular
69	flat-based storage pit	867 67R156 98	138	122	61	circular
70	root mold (non-cultural)	866 35R156 20	13	13	7	circular
71	root mold (non-cultural)	867 00R157 73	22	17	14	oval
72	basin-shaped borrow nit	884 34R 191 55	227	196	18	sub-rectangular
73	basin-shaped borrow pit	885 39R 189 04	152	126	15	sub-rectangular
73 74	small nit/hasin (storage nit?)	883 56R 190 69	56	50	17	oval
75	small pit/basin (storage pit?)	884 79R 192 57	52	44	8	sub-rectangular
76	natural disturbance (2)	884 45P 100 03	32 41	37	10	oval
70	root mold (non-cultural)	885 1/P 100 /3	15	15	0	circular
78	natural disturbance	864 00P 165 87	187	96	n/d	irregular
70	smudge pit	882 11P 203 76	25	90 24	11/u 8	circular
80	posthole	882.11R203.70	23	24	21	oircular
80 81	posthole	882.24K202.30	23	10	21	circular
01 02	posthole	882.30K202.20 994 20D 107 71	20	19	15	oval
02 83	smudge pit	004.29K197.71 974 20D 200 20	21	19	13	oval
0 <i>3</i> 0 <i>1</i>	smull nit/hosin	874.20K209.29	42	26	4	oval
04 85	smudge pit	805.91K197.90 871 A0D 200 A5	42	50 18	1	oircular
0 <i>J</i> 0 <i>C</i>	sinuage pit	0/1.40K209.43	20	10	1 7	circular
80 97	postilole smudae nit	809.3/K207.71	13	14	2	circular
8/	smudge pl	80/.00K20/.39	24	22	5	circular
88 80	smudge pli	800.32K207.01	24	23 172	5 42	circular
89 00	basin shared barrow pit	8/0.08K212.09	220	1/2	42	oval
90	basin-snaped borrow pit	8//.32K210.08	1/8	104	4/	irregular
91	basin shared barrow pit	8/0.0/K209.11	190	100	19	oval
92	basin-snaped borrow pit	8//.80K208.00	119	81 59	ا ار به	irregular
93	grave	8//.8/K208.01	144	58 50	n/a	rectangular
94	basin-snaped borrow pit	8/6.01K208.33	69	50	/	sub-rectangular
95	refuse-filled stump hole	88/.4/K194.80	39	<i>33</i>	44	irregular
96	refuse-filled stump hole	889.90K191.19	26	20	31	oval
97	small pit/basin	882.5/K178.92	54 17	30 10	10	oval
98	smudge pit	88/.41R1/8.69	17	16	2	circular
99	smudge pit	889.02R181.88	27	27	8	circular
100	posthole	880.99R189.21	16	16	21	cırcular
101	small pit/basin	891.97R183.31	57	47	6	oval
102	erosional gully (with cultural deposits)	889.19R156.21	varies	varies	varies	-
103	smudge pit	885.82R175.24	34	32	10	circular
104	smudge pit	876.79R162.15	26	25	3	circular

Table 5.	1 c	ontin	led.

105 smudge pit 887.07R173.88 28 26 12	
	circular
106 flat-based storage pit 887.93R173.00 108 90 18	sub-rectangular
107 flat-based storage pit 889.00R174.63 104 94 33	sub-rectangular
108 flat-based storage pit 887.44R175.16 80 71 19	sub-rectangular
109 basin-shaped borrow pit 885.38R168.15 124 104 14	oval
110 small pit/basin 858.83R193.94 60 47 3	oval
111 grave 858.85R187.69 201 51 n/d	rectangular
112 posthole 864.08R176.49 32 28 29	oval
113 posthole 864.30R174.30 47 33 38	oval
114 posthole 866.71R174.85 37 28 36	oval
115 grave 874.42R163.78 116 46 n/d	rectangular
116 small pit/basin (storage pit?) 870.97R157.59 47 45 30	sub-rectangular
smudge pit (within Fea. 116) 870.97R157.59 23 23 (est) 14	circular
117 grave 869.60R167.41 203 52 n/d	rectangular
118 probable borrow pit 869.40R167.76 101 70 (est) n/d	oval
119 grave 868.82R163.08 187 72 n/d	rectangular
120 posthole 865.40R174.63 30 28 35	circular
121 smudge pit 863.20R158.27 34 32 11	circular
122 basin-shaped borrow pit 863.81R152.77 156 108 21	oval
123 flat-based storage pit 868 13R154 34 92 88 58	circular
124 basin-shaped borrow pit 877.83R208.55 208 130 14	sub-rectangular
125 posthole 865.26R176.60 31 26 29	oval
126 posthole 866 41 R 176 71 35 33 22	circular
127 smudge nit 866 02R158 95 23 22 19	circular
128 grave 864 32R162.00 107 51 n/d	rectangular
129 grave 862 35R164.81 183 53 n/d	rectangular
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	circular
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	circular
132 grave 859.02R171.78 185 48 n/d	rectangular
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	circular
134 smudge pit 860.62R177.03 30 27 5	circular
135 grave 858.08R170.93 176 (est) 61 n/d	rectangular
136 grave 857 20R170 23 189 57 n/d	rectangular
137 grave 856 35R169 57 198 59 n/d	rectangular
138 grave 859.95R168.12 198 58 n/d	rectangular
139 hasin-shaped borrow nit 860 47R16718 126 125 15	oval
140 flat-hased storage nit 853 03R173 35 152 124 56	oval
141 small nit/hasin (storage nit?) 853 59R187 17 49 47 8	rectangular
142 refuse-filled stump hole 856 01R160 69 111 93 39	oval
143 smudge nit 854 89R179 89 18 17 10	circular
144 smudge pit $855 13R185 41 45 40 9$	oval
145 nosthole 855 30R189 41 19 17 13	circular
146 posthole 855.34R188.84 14 14 17	circular
147 posthole 855.23 R190.27 21 20 20	circular
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	circular
149 posthole 854 26R185 11 20 19 26	circular
150 posthole $854.488185.23$ 14 13 14	circular
151 posthole $854.76R191.73$ 13 14 9	circular
152 posthole 855 05R191 87 16 16 20	circular
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	circular
154 posthole 853 58R186 08 20 18 37	circular
155 flat-hased storage nit 857.56(160.00 20 16 57	circular
156 posthole 854 90R190 67 10 10 8	circular

Feature	Туре	Grid Location	Length	Width	Depth	Plan
157	smudge pit	854.63R196.34	22	19	8	circular
158	basin-shaped storage pit	856.15R196.06	79	77	11	circular
159	smudge pit	855.89R196.00	29	26	11	circular
160	smudge pit	856.16R196.35	21	21	9	circular
161	smudge pit	858.65R200.13	32	31	8	circular
162	flat-based storage pit	856.36R198.75	111	108	32	circular
163	flat-based storage pit	857.69R198.15	112	109	25	sub-rectangular
164	small pit/basin	892.59R171.15	88	64	8	oval
165	posthole	851.26R177.78	15	15	10	circular
166	smudge pit	850.62R181.07	40	34	3	oval
167	smudge pit	852.02R182.11	26	22	4	oval
168	posthole	851.86R188.68	20	18	9	circular
169	posthole	852.20R184.53	14	13	6	circular
170	small pit/basin (storage pit?)	852.15R189.89	71	55	20	sub-rectangular
171	posthole	853.14R190.26	15	14	43	circular
172	posthole	853.07R191.84	20	18	37	circular
173	posthole	852.87R192.14	16	14	11	circular
174	smudge pit	854.90R198.94	22	22	7	circular
175	posthole	854.52R199.19	17	16	9	circular
176	smudge pit	849.44R194.91	19	18	3	circular
177	smudge pit	849.09R195.23	20	20	4	circular
178	smudge pit	849.61R195.47	18	17	3	circular
179	smudge pit	847.52R194.93	25	24	18	circular
180	smudge pit	847.64R194.38	37	35	13	circular
181	smudge pit	847.97R194.28	20	19	6	circular
182	smudge pit	848.11R196.03	24	24	8	circular
183	smudge pit	848.22R199.95	25	23	7	circular
184	smudge pit	848.68R202.90	24	23	6	circular
185	small pit/basin (storage pit?)	848.96R204.42	41	32	31	sub-rectangular
186	posthole	849.27R201.69	16	16	6	circular
187	refuse-filled stump hole	850.14R195.90	29	28	42	irregular
188	posthole	850.52R203.04	12	12	6	circular
189	posthole	849.15R203.58	14	13	8	circular
190	basin-shaped borrow pit	853.50R174.03	194 (est)	141	20	oval
191	basin-shaped borrow pit	854.08R174.34	104	61	8	oval

Note: Length, width, and depth measurements are in centimeters; n/d = no data.

stratigraphic contacts are relatively flat, and compaction of strata surfaces indicate tamping or trampling, possibly representing efforts to create new pit floors for continued use after fill episodes. Flat-based pits also contain higher densities of refuse and more diverse artifact assemblages than other feature contexts at the site. For example, presumed storage pits, which accounted for less than 25% of the soil excavated from discrete contexts, yielded 62% (n=4,798) of the Catawba potsherds, 74% (n=130) of English ceramic sherds, 85% of the tobacco pipe fragments, 91% (n=30) of the silver fragments, and 95% (n=1,413) of the glass beads recovered from Ayers Town features. Deposits within flat-based pits also yielded the majority of reconstructable ceramic vessels, an indication of direct, primary disposal of household debris into these facilities.

Multiple lines of evidence indicate that most of the flat-based pits documented at Ayers Town were directly associated with domestic dwellings as substructure storage facilities. The



Figure 5.2. Flat-based storage pit (Feature 3) plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with south half excavated (bottom, view to north).

spatial distribution of most flat-based pits as discrete, but roughly equivalent, clusters arrayed at varying intervals around the site perimeter indicates their function as elements of multiple equivalent activity sets. Flat-based pits tend to occur in groups of two to four pits that are spaced 5 cm to 2.5 m apart; these groups also tend to co-occur with small clusters of postholes and charred corncob-filled pits. These clusters of flat-based pits, postholes, and cob-filled pits are spaced at 2.6–15.3 m intervals around the site perimeter. Similar clusters of facilities are documented at the mid-eighteenth-century Catawba village of Nassaw (38YK434), where flatbased pits are clearly situated within post-in-ground architectural patterns (Figure 2.6). These Colonial-era flat-based pits closely resemble the Ayers Town sample in dimensions, morphology, and stratigraphic complexity. In addition, artifact assemblages from flat-based pits at Nassaw resemble those of Ayers Town in composition, with concentrations of small personal items (e.g., glass beads) and reconstructable ceramic vessel sections (indicative of primary disposal of domestic household debris). The apparent absence of post-in-ground architectural patterns around groups of flat-based pits at Ayers Town (with the exception of Features 141 and 170) may reflect a temporal shift to horizontal log architecture. Such architectural change is indicated in the early Federal period Catawba component at Old Town (which is contemporaneous with Ayers Town), which lacks postmold patterns but includes two aligned pairs of rectangular, flat-based pits that probably demarcate two domiciles, as well as other rectangular flat-based pits that occur singly. These rectangular subfloor pit cellars are a hallmark of Federal period log cabin architecture throughout the South (Faulkner 1986; Kimmell 1993; Riggs 1999; Samford 2007). Such rectangular pit cellars are typically situated at hearth fronts

and are centrally aligned with the end chimneys of cabins. By contrast, the subfloor pits documented at Nassaw are situated around building perimeters, and probably surrounded central hearths (which are no longer observable). Pit groupings at Ayers Town probably mirror the Nassaw pattern, and may reference retention of traditional, central hearth arrangements within some horizontal cribbed-log structures. Use of both central hearths and end chimneys at Ayers Town is attested by Henrietta Liston's 1797 journal, which noted both "Wigwhams (the original form of their Houses) [where] the fire is in the middle" and log houses with chimneys.

Two flat-based pits, Features 55 and 140, are distinguished by unique morphologies. Feature 55, a large (171 cm x 100 cm), symmetrical, rectangular pit, resembles subfloor pit cellars documented at Old Town and New Town in form and formality, but is much shallower (23 cm). The surrounding surface does not appear to have been appreciably deflated (as gauged by the depth of nearby cob-filled pits), and the original construction depth of Feature 55 may have been only 40–50 cm below ground surface. This pit was probably too shallow to serve as a viable storage facility in a ground-level, earthen-floored structure, but may have connected to a raised wooden floor of a superstructure with a framed (perhaps earth-embanked) box to create a deeper facility.

Materials associated with Feature 55 indicate that the pit may slightly postdate most other contexts at Ayers Town. Feature 55 yielded the largest sample of English ceramics (n=36) from any pit context at the site, and a mean ceramic date derived from this small sample is 1793.2—five years later than the pooled site MCD (i.e., 1787.9) and 13 years later than the MCD (i.e., 1780.2) derived from feature contexts other than Feature 55. This probable temporal difference may account for the distinct morphology of Feature 55, and the possible superstructure type it represents may be a slightly later form in the evolution of Catawba housing and storage.

The other unique, flat-based pit is Feature 140, a large oval facility with in-sloping sidewalls. This morphology contrasts with other flat-based pits at Ayers Town, most of which are more cylindrical, with pit floors and orifices of roughly equivalent size. Unlike other flat-based pits, Feature 140 intruded earlier pit facilities, and the eastern wall of Feature 140 contained numerous Catawba potsherds and vessel sections and large animal bones, but relatively few small artifacts and only four glass beads. Vessel refits of sherds from Feature 140 deposits indicate probable primary disposal of refuse into the pit, but the scarcity of small artifacts, particularly glass beads, distinguishes the Feature 140 deposits from those in probable subfloor storage pits which received floor storage pits in spatial relationships to other facilities. Whereas most flat-based pits occur in clusters with other flat-based pits, postholes, and cob-filled pits, Feature 140 is relatively isolated from such contexts; it is 4.8 m from the nearest posthole, 6.8 m from the nearest cob-filled pit, and 13.8 m from the nearest flat-based pit.

The morphology, spatial relationships, and deposit characteristics of Feature 140 indicate that this facility is distinct from other flat-based pits—probable substructure storage pits—at the site. Instead, Feature 140 may represent an extramural storage facility set apart from immediate domestic areas. Because this facility is unique (rather than replicated with each domestic unit), it may represent community-based storage rather than household-based storage. Alternatively, deposits within Feature 140 appear to date late in the Ayers Town occupation (pearlwares predominate the associated English ceramics), suggesting that this facility may have been coeval with Feature 55 and associated with the latest Catawba residence at the site.

Borrow Pits

Sixteen basin-shaped pits (Features 61, 62, 72, 73, 89, 90, 91, 92, 94, 109, 118, 122, 124, 139, 190, and 191) arrayed around the periphery of the site are provisionally identified as soil borrow facilities. These round or ovoid features range from 54 cm to 227 cm in diameter (\bar{x} = 143.59, s.d.=53.16) and from 4 cm to 47 cm in depth (\bar{x} = 18.29, s.d.=12.29). They are distinguished by in-sloping walls that form continuous arcs with pit floors (i.e., no obvious inflection points). Most of these basins exhibit slightly irregular floors, consistent with their proposed function as voids created primarily for soil recovery rather than storage (Figure 5.3). The position of many of these features in proximity to clusters of flat-based storage pits (probable dwelling loci) may indicate association with particular constructions that required soils for preparation of daub mixes and other purposes. However, the largest basin-shaped pits (Features 89, 90, 91, and 124) are clustered near the terrace edge at the eastern edge of the site, in a precinct of soil recovery features that may have served the entire community. One other probable borrow pit, Feature 118, was not investigated because it was intruded by and largely occluded by Feature 117, a rectangular grave pit. Similarly, only a portion for Feature 92 was excavated due to intrusion by a grave (Feature 93).

Deposits within basin-shaped pits tend to be massive and relatively undifferentiated. Most of these pits contained single strata, although larger basins (i.e., Features 72, 89, and 139) contained up to four distinct deposits. Suites of artifacts recovered from larger basins indicate both primary and secondary disposal events represented within pit deposits. Other, nearly sterile deposits may represent natural filling events from capture of sheet-washed sediments or pit-wall collapse. In a number of instances, basin-shaped pits along the eastern and northern edges of the site included deposits of small cobbles, natural inclusions which may have been separated from clay removed from the pits at the time of initial excavation or processing of soils.

Postholes

Forty small, cylindrical pits are characterized as probable postholes, excavations for the installation of earthfast wooden posts. These postholes range in size from 10 cm to 47 cm in diameter (\bar{x} = 20.63, s.d.=8.03) and 8 cm to 38 cm in depth (\bar{x} = 20.53, s.d.=11.68), and they are distinguished by very high depth-to-diameter ratios (range=0.38–2.87, \bar{x} = 0.99, s.d.=0.49). Twenty-five postholes evince vertical or nearly vertical sidewalls and flat bases; ten postholes have inward sloping sidewalls that terminate at rounded bases (Figure 5.4).

Postholes are concentrated in three clusters that represent the locations of probable post-inground structures. The northernmost cluster (designated Structure Locality 4) comprises Features 8, 10, 17, 18, 19, 80, 81, and 82 to form a roughly rectangular 4.5 m x 3.4 m pattern. This post cluster is situated adjacent to, but not aligned with, the probable structure indicated by Feature 55. Instead, it is approximately parallel to the probable structure indicated by Features 74 and 75 (Structure Locality 3). No other facilities are situated within this cluster of postholes, and the function of the probable superstructure is not directly indicated, but this slightly amorphous posthole cluster may represent an ancillary outbuilding (e.g., outdoor kitchen, workshed, or ramada) associated with a more substantial cribbed log domicile.

At the southern edge of the site, 16 postholes (Features 145–154, 156, 168, 169, and 171– 173) form an amorphous cluster around two small, flat-based pits, Features 141 and 170



Figure 5.3. Shallow basin-shaped borrow pit (Feature 72) plan view and profile drawings, and excavation photographs: top of feature (top right, view to north), fill profile with north half excavated (middle right, view to south), close-up of fill profile with north half excavated (bottom left, view to south), and excavated feature (bottom right, view to north).

(Structure Locality 10). Six of these postholes (Features 145, 146, 147, 151, 152, and 156) form an east-west alignment roughly parallel to the Feature 141–Feature 170 axis. Temporal association of Features 145 (posthole) and 170 (flat-based pit) is indicated by the presence in each feature of "rosso antico" dry-bodied red stoneware from the same vessel. These postholes probably represent the partial pattern of a post-in-ground building associated with Features 141 and 170 (probable subfloor pits). Such post-in-ground domestic architecture is clearly represented at the Colonial-era Catawba site of Nassaw Town (38YK434), but has not been identified in late pre-Revolutionary War and early post-war contexts at Catawba Old Town. This



Figure 5.4. Posthole (Feature 113) plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature with rocks *in situ* (bottom, view to north).

probable post-in-ground building may correspond to the "wigwhams, the original form of their houses" that Liston observed at Ayers Town in 1797 or may represent an ancillary outbuilding associated with Structure Locality 11 (Features 155, 158, 162, and 163) as part of Residential Complex E.

Near the center of the site, six large (30–47 cm diameter) posts (Features 112, 113, 114, 120, 125, and 126) form a regular, rectangular 2.5 m x 2.0 m pattern oriented approximately N18°E. This structure pattern (designated Structure Locality 9) is oriented to, and aligned with, the hypothetical building outline that encloses Features 33, 69, 116, and 123 (Structure Locality 8), situated 17 m west of Structure Locality 9. This alignment may indicate direct association, in which the Structure Locality 9 building is referenced to a primary domicile in Residential Complex D. Alternately, the Structure Locality 9 is surrounded on three sides by Cemeteries 1, 2, and 3, but none of the graves of these precincts are closer than 3.6 m to the Structure Locality 9 building, a pattern which may indicate contemporaneity of the building with the cemeteries.

These three clusters account for 75% of the postholes documented at 38YK534. The remainder are scattered around the site without clear spatial reference to other contexts, and they probably represent isolated post installations for a variety of purposes.



Figure 5.5. Smudge pit (Feature 57) plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Smudge Pits

Small, charcoal-filled pits are the most abundant cultural facilities documented at Ayers Town and account for 29% of purposely constructed facilities. Forty-five such facilities were designated as archaeological features; two additional fill zones within Features 68 and 116 also represent intrusive charcoal-filled pits. Most of these pits are circular or oval in form, and area relatively small (17–51 cm in diameter; $\bar{x}=26.85$, s.d.=7.73), with vertical or slightly belled sidewalls and flat or slightly basin-shaped bases (Figure 5.5). Observed depths of these facilities range from 1–24 cm ($\bar{x}=8.36$); shallower examples are probably heavily truncated. These contexts typically evince dense deposits of charred plant material (primarily corncobs) that appear to have been burned *in situ* by low intensity fires that smoldered in low oxygen environments, producing charcoal rather than fully combusted ash residues. Most (72%) contain no artifacts, and the majority of associated artifacts appear to have been incidental inclusions. Fewer than half of these pits exhibit fired soils, evidence of low firing temperatures.

Comparable "cob-filled" pits are extensively documented in later prehistoric (post-AD 1000) and historic-era contexts throughout the southeastern United States and its periphery (Binford 1967; Bonhage-Freund 2005; Munsen 1969). As inferred on the basis of pit size, pit morphology, and fill characteristics, as well as ethnographic evidence, these cob-filled pits are typically identified as smudging facilities (i.e., specialized pit hearths designed to produce large volumes of smoke and soot through regulated combustion). Early twentieth-century Creek (Muscogee) informants described such smudging facilities to Swanton (1946:445), who noted,

"...they scooped a hole in the ground, built a fire in it, and put corncobs upon this so that a thick smoke was produced with little flame" for smoking hides. Multiple ethnographic accounts of eastern Cherokee pottery production also note the use of such facilities for smudging the interiors of pottery vessels. E. P. Valentine, who observed Cherokee potters in 1882, wrote:

The pot is then placed in the sun where it is allowed to stay until it becomes dry, after which it is put near the fire and turned about occasionally until it becomes comparatively hard. *Then a hole about the size of the pot is dug and a charcoal fire started in it. Over this fire which is kept at a uniform heat never allowing it to flame up is inverted the pot* [emphasis added]. This being done the pot can without the least uneasiness be used for cooking. [Valentine n.d.]

James Mooney, who visited many of the same Cherokee potters in 1888, observed:

When the vessel was finished and dried in the sun it was heated by the fire for three hours, and then put on the fire and covered with bark and burned for about three-quarters of an hour. When this step of the process was completed the vessel was taken outside the house and inverted over *a small hole in the ground, which was filled with burning corn cobs* [emphasis added]. This fuel was renewed a number of times, and at the end of half an hour the interior of the vessel had acquired a black and glistening surface. [Holmes 1903:56]

Harrington (1909) relates Cherokee potter Iwi Katolsta's rationale for pottery smudging as a method for waterproofing low-fired earthenware vessels:

In order to be good for cooking, these pots should be smoked," she said. "If this is not done the water will soak through." So she dropped a handful of bran in each one while they were still almost redhot, stirred it with her stick, tipped the pots this way and that, and finally, turning out the now blazing bran from each in turn, inverted the vessels upon it. In this way the inside was smoked black and rendered impervious and this without leaving any odor of smoke in the vessels when they became cold. Generally, Iwi told me, corncobs were employed for this purpose, but she always used bran when cobs were not available. [Harrington 1909:226]

Small, cob-filled pits are consistent elements of domestic components in eighteenth and nineteenth century Cherokee archaeological contexts, where the vast majority of ceramic vessels and sherds evince interior smudging (Riggs 1987; Russ and Chapman 1983; Schroedl 1986). These pits presumably correspond to the pottery smudging facilities that Valentine and Mooney observed in the 1880s. The cob-filled pits documented in historic-era Cherokee contexts substantially resemble those documented at Ayers Town and the earlier Catawba village of Nassaw Town (c. 1750–1759), settings which also yielded large quantities of ceramic sherds and vessel sections with sooted or smudged interior surfaces.

The smudging of Catawba vessel interiors is indicated by Harrington (1908), Jones (1815), Mooney (1888, in Holmes 1903) and Palmer (in Holmes [1903]), but none cite the use of cobfilled pits as smudging facilities. Instead, Harrington, Mooney, and Palmer all observed that interior smudging of Catawba vessels was affected by inverting pots over piles of broken bark during the primary firing process. This may represent streamlining in Catawba production practice during the nineteenth century, when cottage production of vessels for commercial markets accelerated. Such change in production practice is consistent with the total absence of cob-filled pits at the New Town site, an extensively excavated Catawba village that dates c. 1790–1820 (Davis and Riggs 2004; Shebalin 2011).

Smudging facilities are located throughout the Ayers Town village area, with small clusters of cob-filled pits around each domestic area (as defined by the presence of presumed subfloor storage facilities). The largest concentration of cob-filled pits is located at the southeastern



Figure 5.6. Grave pit (Feature 111) plan view drawing and photograph at top of subsoil (view to north).

perimeter of the village area and consists of 13 smudge pits that would have been situated at the leeward edge of the domestic occupation (assuming predominant westerly winds). This large cluster of cob-filled pits may constitute a discrete activity precinct that was positioned to spare the village from the dense smoke produced by smudge fires.

Graves

Investigations at Ayers Town identified 31 probable graves, contexts that were distinguished by their rectangular morphology, size (0.95 m to 2.08 m in length), and distinctive matrices of mixed soils (Figure 5.6). The appearance of mixed soils at the exposed surfaces of these features, particularly highly weathered clays that normally occur at depths more than 75 cm below the present surface, was the principal defining attribute. Such heterogeneous mixed soils typically denote contexts that were excavated through discrete soil strata, and then backfilled in short order with the mixed spoil. This sequence is typical for primary inhumations.

Because contexts that exhibited rectangular morphology and mixed matrices were determined *a priori* to represent probable grave pits associated with historic-era Catawba interments, all were photo-documented, mapped, and managed in a manner consistent with the memorandum of agreement and approved treatment plan between the South Carolina Department of Transportation and the Catawba Indian Nation.

All of these presumed grave pits are distinctly rectangular or trapezoidal, with remarkably straight edges and well-defined corners that probably connote spade-cut graves. It is inferred that this grave form was adopted from Anglo-American practice. Similar rectangular grave pits are documented at the nearby Old Town site (c. 1762–1800), a contemporaneous Catawba settlement. Earlier graves documented at the Nassaw Town site (c. 1750–1759) are ovoid in form and probably represent traditional flexed burials.

The grave pits at Ayers Town range from 0.95 m to 2.08 m in length (\bar{x} =158.69; s.d.=41.67); it is assumed that variation in grave length reflects the height of the individual interred. Assuming that these rectangular graves represent fully extended interments, it is inferred that grave pits less than 1.5 m (4.92 ft) (n=10) long reflect subadult burials. Grave width is less variable, ranging from 46 cm to 78 cm (\bar{x} =56.74; s.d.=8.39). The more standardized width of graves may have been a function of the physical constraints of grave pit construction (to allow pit entry for initial excavation), or may reflect uniformity in coffin construction. The use of wooden coffins is inferred from evidence of subsidence of rectangular moulds and post-event filling with unmixed organic topsoils or with other homogeneous soils from the site surface. In other instances, subsidence of fill dirt apparently did not occur or occurred in irregular patterns; these graves may represent either coffin or shroud interments.

The grave pits are concentrated in three clustered cemeteries situated in the southern half of the site, between Residential Complexes D and E (see Figure 5.11). Cemeteries 1 and 2 contain ordered groupings of graves with uniform orientations, alignments, and spacing. Spatial relationships of graves within these cemeteries indicate long-term marking and maintenance of grave plots, or interments of multiple individuals in close succession. For example, groupings of seven (70%) of the probable subadult burials in Cemetery 1 may reflect disease event specific mortality.

The third cemetery (Cemetery 3) appears less carefully planned, with multiple graves that slightly intrude each other (Features 36–39) and no clear arrangement other than relative orientations. The slight overlap of these graves may reflect a sequence of interments placed over a considerable timespan. This irregular, nine-grave cemetery may represent family plots associated with Residential Complex D during the village occupation. A similar arrangement is documented at the contemporaneous Old Town site.

These cemeteries constitute a discrete mortuary precinct that occupies the southwestern quadrant of the site, yet is situated in close proximity to domestic spaces. None of the graves in these cemeteries actually encroach on houseseats, and only two graves intrude other types of archaeological contexts. Conversely, no other contexts (i.e., contexts other than graves) intrude upon graves, a pattern of exclusivity that indicates that these graves were well known and maintained during the village occupation or that many of the graves may have been installed after domestic activity at the site ceased (c. 1800), and thereby were not subject to disturbance by domestic activities. Such continued use of abandoned Catawba village sites as cemeteries is attested by Speck's (1939) informants, who indicated that the New Town site (c. 1790–1820) was used as a cemetery by the Catawba community until 1855, even though mourners had to transport bodies across the Catawba River for interment.

The cemeteries surround a unique post-in-ground structure pattern (Structure Locality 9) represented by six large postholes (Features 112–114, 120, and 125–126) that constitute a 2.2 m x 2.6 m rectangular array. Association of this structure pattern with the cemeteries is inferred

based upon proximity to all three cemeteries and relative distance from defined domestic areas. A 3.6–7.4 m buffer separates the graves from the post pattern on three sides—spacing that suggests planned allocation of respective space to the structure and surrounding cemeteries.

Graves documented both at Ayers Town and at Locus 1 at Old Town (see Chapter 2) reveal several aspects of Federal period Catawba mortuary practice. Rectangular, spade-cut grave pits indicate adoption of Anglo-American conventions in grave construction, but highly varied grave orientations belie adoption of expressly Christian practice. Grave subsidence and refill features indicate use of constructed rectangular coffins, another adopted practice, as does the organization of graves in formal cemeteries outside, and exclusive of, domestic space. These patterns contrast with mid-eighteenth century Catawba mortuary behaviors documented at the Nassaw Town site, where ovoid graves (presumably containing flexed inhumations) are located within or adjacent to dwellings.

Speck (1939) presents an outline of other nineteenth-century Catawba mortuary practices as related from the personal memories and oral traditions of individuals born c. 1840–1860:

For three days after a death in the house the name of the deceased should not be mentioned. The corn-crib should not be opened to take out corn from it for the same period, nor should ashes be cleaned out from the fire-place for the same length of time.

The body of the deceased was left for three days in the bed where death took place. A bucket or a pot of water was also left at the head of the death bed for three days and watched by some of the relatives. On the third day at the instant corresponding to that when demise had taken place the action of the water was observed. If it was seen to quiver they know that the spirit was satisfied and had gone on to the first heaven; another instance of Catawba bowl and water divination (lecanomancy). Thereupon they buried the corpse in the floor of the house beneath where the person lay at the time of death. Some further discussion of this feature will shortly follow. With the body a quantity of "cold embers", or coals from the house fire which had been allowed to grow cold, was placed around the head of the body. The Catawba termed these *j' pa yatcu' ya'məre*, "fire-ashes sleeping," an appropriate symbol of decease. The symbolism of life and fire, death and ashes, is carried out in these observances. It was customary for the women (generally not the relatives of the deceased) to dig the grave, called *ya' suk*, "corpse house." In later times (after 1855) the tribe has had a grave yard on the reservation, *ya suk be'*, "corpse house eternal, immovable." In the old Catawba settlement of New Town or Indian Town on the east side of the river a mile north of the present reservation a burial ground was located and in use until about 1855. We may regard the custom of floor burial to have been abandoned prior to this date.

The name of a "dead person," *yę' pawarit*, could not be spoken for a year, according to Mrs. Owl. Billy Harris used to bite his tongue "so the dead would not come back and bother us." No further explanation was forthcoming from Billy, who has been dead for some years, but his superstition had something to do with fostering deeper thought and avoiding mention of the dead as a measure of safeguarding health and welfare.

The idea of the three-day taboos was to do nothing to hinder the soul from departing peaceably. And we gather that the spirits of the deceased were believed liable to cause more sickness and death. In a previous paper I have reported some beliefs in reference to the causes of disease emanating from the dead. Among them is to be noted that evil spirits entering the body cause sickness; that ghosts are sources of disease, according to Sally Brown, "It is the shadow of a dead person or ghost, coming at night, that brings sickness which may result in death unless medicine is prepared and taken for recovery."

...the following practices were described by Chief Blue in connection with the event of death. They have to do with attending the departure of the soul.... When a person is nearing death the friends and relatives are summoned to assemble at the home of the dying person to attend the demise. The women present stay at the bedside of the sick one, offering what aid is possible to make him comfortable. The men assemble outside the house and build a ritual fire around which they stay all night to render what service they may in bringing water and render aid when called upon. The fire in question is made in the

approved ceremonial manner among practically all the tribes of the southeastern culture area, by placing four large logs pointing radially in the cardinal directions with their inner ends coming together at the point where the fire in kindled; in the form of the "starshaped" fire. The logs were 8-10 feet long and 12-14 inches in diameter. The old Indians used to say that "the people were waiting for them to die" when the "sitting-up fires" were built and maintained, whence the native designation for the occasion *i'pi* ye waha'tcare, "fire person die-watching" (or "causing": -tc- causative element). The fire of the sort described is known as yap patki' i'pi', "tree big fire". One of the best remembered occasions attended by Chief Sam Blue, was a number of years ago when Fannie Harris, wife of Chief Jim Harris (circa 1860-72), was sick and dying. The solemnity was carried out as described, lasting all night. At the time the men did not engage in games or pastimes.... He [Sam Blue] related: "Sometime during the year following burial, the family of the deceased occasionally gathered at the grave and cried. Sometimes only the bereaved widow or widower or the mother of the deceased did it alone. Crying at the grave is likely to be kept up until the memory and grief of death was dulled a little by time, say for a year. Istcu'na' kyebmosa're wehatcu're, 'Mother-mine grave (pit) to went, cried much'." The description does not indicate a particularly formalized or imperative custom.... Using again the words of Sally Brown (1925) we have a short narrative of burial customs, graphic and definite. "The ancient Indians, when anyone died, they dug a grave in the ground underneath the corner of the house and put him in the ground. They buried him in the ground near where he died. Three days after he was buried it was thought that his spirit would come back and drink water. If his spirit drinks the water will ripple. Before they buried him in the ground, all the people would keep awake. For three nights they would keep the fire and lights. They could not eat for three days while they were awake (watching). After a while they could eat. In the pot they put corn bread and put embers all around the pot. The children threw ashes out of the door. It is said that they would take ashes in their hands and blow them on the dead person so that his spirit wouldn't bother them. We run away right now!"

The taboos laid upon the action of widows were noteworthy. They could not, without disapproval, speak to persons outside the family for a year. And, of course, marriage within this time was impossible. Nor would a widow cut her hair for a year. The widow is called va' va be'' (or va va pi') "woman (of the) road immovable", the term having reference to the narrow and restricted social lane in which custom obliged her to confine herself for a year. We may devote a few lines of consideration to the custom of burial beneath the door of the living-house, a practice formerly characteristic of the Muskhogean Creeks as well as the Yuchi and the Catawba. Sally Brown gave a reason for the practice, namely, the desire that "the dead folks would be with the family all together". In both the practice referred to and the reason assigned it an aspect toward the deceased is indicated which is quite at variance with the views of other groups in eastern North America among whom an avoidance of proximity to the corpse is characteristic. We have no means at the present time of distinguishing fixed attitudes toward the dead as being friendly or unfriendly. Despite the Catawba sentiment of amity toward departed spirits and the desire to cherish their presence and memories, there is evidence of fear toward them as inculcators of disease among the living. There may be less inconsistency in this situation than appears at first to our understanding. Manifestations of regard for the dead in the manner described are thought to be influential in annulling baneful possibilities of infliction of disease by them. [Speck 1939:42-46]

The archaeological data suggest that some of these practices, such as house floor burial, were already obsolete by the Federal period, but other customs and attitudes described by Speck likely apply to Ayers Town. For instance, although the Ayers Town cemeteries are discrete and nominally separated from domestic areas, their proximity to dwellings and activity areas may have fulfilled "the desire that 'the dead folks would be with the family all together." The concept of the grave as *ya' suk*, or corpse house, and the graveyard as *ya suk be'*, or eternal, immovable corpse house, implies an association of the dead with their own dwellings [and perhaps villages]—an association that may extend to the six-post structure in the middle of the mortuary precinct. The planning and maintenance of the cemeteries at Ayers Town, as evidenced by the spacing and alignments of graves, and the addition of soils to subsided graves, may reflect "the Catawba sentiment of amity toward departed spirits and the desire to cherish



Figure 5.7. Small pit/basin (Feature 110) plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with east half excavated (bottom, view to north).

their presence and memories" and manifestations of regard for the dead "...thought to be influential in annulling baneful possibilities of infliction of disease by them" (Speck 1939:46).

Small Pits

Five other small, shallow pits or basins (Features 84, 97, 101, 110, and 164) represent other types of facilities not clearly referable to storage, soil borrowing, post emplacement, or smudging. Feature 101, a small (57 cm by 47 cm) oval basin located at the northern edge of the site, exhibited evidence of *in situ* burning, and may represent an exterior hearth associated with Structure Locality 6. While the inhabitants of Ayers Town undoubtedly built surface fires throughout the community space for multiple purposes, direct evidence of managed fire is largely limited to smudge pits. The probable function of Feature 101 as a "hearth pit" is unclear.

Features 110 and 164 are shallow, oval, flat-based pits that contained quantities of unfired potter's clay, and they resemble presumed clay processing pits documented at the nearby Old Town site (Figure 5.7). At Old Town, shallow pits situated at the ends of houses yielded deposits of prepared and sorted pale gray and yellow clays identical to unfired vessel fragments recovered from pit cellars. Although the function of these deposits is not directly indicated, it is hypothesized that Catawba potters engaging new types of clay required for production of temperless "colonoware" pottery may have resorted to aging gleyed clays to improve their workability, a process documented worldwide (Glick 1936; Rice 1987; Rye 1981). As late as the



Figure 5.8. Rock-filled basins (Features 31 and 60) at top of subsoil (view to north).

early 1970s, Catawba potters aged similar clays for months in backyard pits before potting (Steven Baker, personal communication 2003). As is the case at Old Town, probable clay processing pits at Ayers Town are located adjacent to clusters of flat-based storage pits that indicate dwelling seats. Positioning of these facilities may indicate that the contents were considered personal property and access was monitored.

Features 84 and 97 are small (<45 cm), shallow pits that contained relatively dark, organic matrices and are presumably associated with the Federal period Catawba occupation. Feature 84 is spatially associated with Structure Locality 4, and Feature 97 may be associated with Structure Localities 5 or 6. Neither the sizes, morphology, condition, content, nor spatial relationships of these pits provide clues to their probable function.

Rock-Filled Basins

Two rock-filled basins, Features 31 and 60, appear to be heating or cooking facilities associated with Archaic or Woodland period occupations of the site (Figure 5.8). These basins are relatively small (37 cm x 30 cm and 61 cm x 54 cm, respectively) and shallow, with dense concentrations of hand-sized stones in heavily weathered matrices. No organic discoloration of the soil matrices was noted, and the pit margins were discerned solely on the basis of subtle differences in soil texture and compaction. This degree of weathering was not evident in any of the historic-era Catawba contexts and probably indicates considerable antiquity. Neither of these facilities yielded materials attributable to the historic-era Catawba village component. Feature 31 contained no associated artifacts, and Feature 60 yielded 12 lithic flakes and small flecks of charcoal.

Although these facilities exhibited no obvious evidence of *in situ* burning, the structure and content of these rock-filled basins is consistent with "rock oven" cooking facilities that are widely documented in the ethnographic record (e.g., Smith 2000; Thoms 2008; Wandsnider 1997). Such facilities are typically hearth pits or basins that employ stones as heat sinks for



Figure 5.9. Tree disturbance (Feature 67) plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

thermal mass for cooking without exposing foods or other materials to direct flame. This can be accomplished either by *in situ* heating of the stones by burning fuel above or below the rocks, or by transfer of heated rocks from an exterior fire to the cooking pit. In the case of Features 31 and 60, dense, compact beds of rock probably represent preparation for *in situ* firings. The relatively small size of these rock-filled basins may reflect dry-heat, direct cooking of small packages of food, presumably high-value resources such as meats.

Archaeological evidence for such "rock oven" cooking facilities is well documented in Archaic and Woodland period contexts throughout the Southeast, and similar facilities are widely distributed across North America wherever suitable stones are available (Petraglia 2002; Wandsnider 1997).

Refuse-Filled Stump Holes or Rootmolds

Five naturally occurring stump holes or root molds (Features 67, 95, 96, 142, and 187) yielded substantial quantities of refuse attributable to the early Federal period Catawba occupation (Figure 5.9). These disturbances are distinguished by irregular profiles, often with multiple tapered protrusions indicative of root proliferation, and probably represent casts opened by decaying tree trunks, stumps, and roots. Feature 142, a basin-shaped disturbance with a deeper central extension, may represent a void left by an uprooted tree root mass and taproot.

The upper matrices of these disturbances yielded a considerable array of materials, including Catawba potsherds, English potsherds, lead, silver and brass fragments, animal bone, ash, and raw potter's clay. The high density and diversity of materials recovered from these contexts indicate intentional filling of these voids with primary or secondary refuse. While such natural cavities probably afforded excellent receptacles for opportunistic trash disposal, they probably also presented hazards to pedestrian or horse traffic onsite, and refuse disposal into these voids likely served a dual purpose for maintenance and management of the site surface.

Erosional Gully

Feature 102 was a large, natural erosional gully at the northwest edge of the site that likely formed either prior to the Catawba occupation of the site or during the early stages of this occupation (Figure 5.10). Excavations exposed a 10-meter long segment of the gully from its head between Structure Localities 5 and 7 to the northern edge of the machine stripped exposure. This segment revealed increasing depth from 33 cm at the gully head to 125 cm (including 80 cm of overburden deposits) at the edge of the exposure. These deposits yielded small fragments of Catawba pottery throughout. Excavation of a 0.5 m by 2.0 m exploratory trench across the gully itself revealed distinct sediment zones that contained small Catawba potsherds and bone fragments, but lacked dense primary refuse deposits from the village, an indication that the filling of this feature probably postdates the village occupation.

The gully, and the deposits within and above this erosional feature, illustrates the transformations of the site surface during and after the Catawba village occupation. Trampling and denuding of the site surface during the village occupation likely introduced an erosional regime to a previously stable, wooded terrace surface. Erosion processes appear to have accelerated after the village occupation, with deflation and sheet erosion as well as development of downcutting gullies. The head of the Feature 102 gully corresponds with the position of a hypothesized road that crosscut the site during and after the village occupation, and the gully may have formed in relation to the roadbed. The gully itself appears to have downcut rapidly, then filled with organically enriched topsoil from the site surface. These sediments were then smothered with a dense mantle of finer-grained sediments that reflect mass wasting of the site and adjacent surfaces. These sediments appear to reflect multiple episodes of sheet wash deposition, a process that may relate to poor farming practices during expansion of agricultural production—particularly cotton farming—in the early-to-mid nineteenth century. The surface appears to have stabilized after plowing ceased in the early twentieth century, when the site was probably consigned to pasture.

The erosional history of the site after abandonment of the Catawba village suggests substantial modification of the former occupation surface and probably accounts for relatively thin (10–20 cm) deposits over much of the site surface, in contrast to the thick (>50 cm) horizons of redeposited soils along the northwest, downslope margin of the site. The incidence of Catawba sherds in these thicker soils documented by survey shovel tests and one-meter test units corresponds to debris recovered from the gully and overburden, and does not reflect buried occupation surfaces.



Figure 5.10. Erosional gully (Feature 102) plan view and profile drawings, and excavation photographs: Profile 1 (middle left, view to south), Profile 2 (middle right, view to northwest), Profile 2 after excavation of exploratory trench (bottom left, view to northwest), and recording Profile 2 (bottom right, view to west).



Figure 5.11. Plan of Ayers Town illustrating feature contexts associated with the Federal period Catawba component and the reconstructed community plan.

Site Structure and Community Pattern

Spatial configurations of facilities and other discrete contexts associated with the Federal period Catawba occupation of site 38YK534 reveal coherent patterns indicative of community planning and community evolution of Ayers Town. Federal period Catawba facilities are arrayed in a roughly rectangular plan that extends 56 m NW–SE x 46 m NE–SW, oriented parallel to the front slope of the terrace (~N65°W) (Figure 5.11). Larger pit contexts are situated around the perimeter of this rectangle, with clusters of flat-based storage pits (presumed structure locations) interspersed with basin-shaped borrow pits. With few exceptions, cob-filled smudge pits and postholes are also distributed along the perimeter of the rectangular plan. Within this perimeter border of storage facilities and borrow pits are three cemeteries that comprise 30 graves; an additional grave is situated apart from these cemetery clusters. These cemeteries are situated in the southwestern half of the central area defined by the ring of storage pits and borrow pits. The cemeteries surround Structure Locality 9, a 2.5 m x 2.0 m rectangle of six large postholes which is the only coherent post-in-ground architectural pattern evident at the site.

The rectangular site plan is divided by a six-meter wide, linear corridor generally devoid of cultural features (Figure 5.11). This corridor, which is oriented approximately N64°W, occupies the flattest portion of the landform. Almost half of the graves identified at the site (all of Cemetery 2 [Features 7, 132, and 135–138] and Cemetery 1, Group B [Features 47–54]) are




oriented either parallel to, or perpendicular to, this corridor. No other cultural features share this orientation, but Feature 102, an erosional gully, originates along the edge of this corridor and roughly parallels the corridor orientation. This linear corridor may correspond to a wagon road beside the western Catawba settlement depicted by Drayton (Figure 5.12). This road connected McClenahan's Ferry (Mills 1825) below Ferry Branch (2300 m [1.4 mi] south of Ayers Town) to the York–Camden Road. Lady Henrietta Liston, who visited Ayers Town in 1797, apparently crossed the Catawba River at McClenahan's Ferry (established 1795) and approached Ayers Town with her four-horse carriage via this wagon road. The closer crossing at Twelvemile Creek (Smyth 1784) almost certainly linked to the Camden Road via this wagon road as well.

The paucity of clear-cut post-in-ground structure patterns at Ayers Town implies the predominance of above-ground (presumably horizontal cribbed log) architecture at the site. The locations of dwellings at Ayers Town are not indicated by explicit architectural evidence, but may be inferred by the positions of vertical-walled, flat-based pits. These facilities closely resemble subfloor storage pits documented within vertical post structures at the antecedent site of Nassaw Town, and clusters of such pits at Ayers Town approximate the groupings of subfloor pits at Nassaw. The distribution of flat-based storage pits at Ayers Town probably represents 10 to 12 buildings that comprise five residential complexes arranged in two "neighborhoods" divided by the presumed road (Figure 5.11). The northeastern neighborhood consists of six probable buildings that constitute three probable residential complexes.

Residential Complex A

Structure Locality 1, at the eastern end of the site adjacent to the probable wagon road corridor, is represented by Features 3 and 4, adjacent flat-based storage pits that are spatially associated with two postholes and four cob-filled smudge pits (Figure 5.13). Six meters north of Structure Locality 1 is a cluster of borrow pits (Features 89–92 and 124); superimposed in this



Figure 5.13. Detailed plan of Residential Complex A at Ayers Town.

complex of borrow features is a single grave (Feature 93). These facilities may be associated with the Structure Locality 1 as elements of the larger Residential Complex A.

Residential Complex B

Residential Complex B comprises Structure Localities 2, 3, and 4 (Figure 5.14). Structure Locality 2 is defined as the area immediately surrounding Feature 55, a rectangular cellar pit located on the northeast side of the presumed wagon road, 21 m northwest of Structure Locality 1. This shallow cellar may reflect a superstructure with an elevated floor through which the cellar was accessed via a boxed enclosure, a unique building mode at Ayers Town. Associated English ceramic wares yielded a mean ceramic date of 1793; all other site contexts yielded a pooled MCD of 1788, indicating that Structure Locality 2 may have been occupied somewhat later than the remainder of the site. Three postholes and five cob-filled pits are situated within six meters of Feature 55, and are probably associated with the Residential Complex B.

Structure Locality 3, incorporates Features 74 and 75, small flat-based pits located six to seven meters north of Feature 55. The space between these pits is occluded by Feature 72, a



Figure 5.14. Detailed plan of Residential Complex B at Ayers Town.

basin-shaped borrow pit that intrudes Feature 74 and clearly postdates Structure Locality 3. Another borrow pit, Feature 73, may be associated with the Locality 3 household, but its contemporaneity is unclear. A cluster of nine postholes located east of Features 74 and 75 may represent a post-in-ground shed or ramada, and is designated Structure Locality 4. The elements of Structure Localities 3 and 4 may have been associated with Structure Locality 2 as facilities of the Residential Complex 2.

Residential Complex C

Residential Complex C subsumes Structure Localities 5 and 6 and the surrounding facilities (Figure 5.15). Structure Locality 5 centers on three flat-based storage pits (Features 106–108) located at the northwestern corner of the site, approximately 16.5 m northwest of Structure Locality 2. These pits are spaced equidistant and arranged at right angles to define a rectangle oriented N30°W. Axes extended from this rectangle intersect Feature 109, a borrow pit situated 5.5 m southwest of Feature 106, and Feature 164, a probable clay processing pit located 4.5 m northwest of Feature 106. These alignments may indicate planning and placement relative to the Structure Locality 5 building, a probable domicile. Features 27 and 101 are also aligned with the Structure Locality 5 pits, and represent elements of Residential Complex C. Feature 27, a small,



Figure 5.15. Detailed plan of Residential Complex C at Ayers Town.

square, flat-based pit located 4.5 m northeast of the Structure Locality 5 pit cluster, probably represents a separate building location (Structure Locality 6). This pit is oriented N18°W and presumably mirrors the orientation of the superstructure. A cob-filled pit located two meters to the southeast and a probable hearth (Feature 101) located 3.8 m northeast of Feature 27 may be associated with Structure Locality 6 as part of Residential Complex C.

Residential Complex D

The southwestern neighborhood comprises Residential Complex D (Structure Localities 7 and 8, and possibly 9) and Residential Complex E (Structure Localities 10, 11, and 12), as well as Cemeteries 1, 2, and 3 (Figure 5.16). Residential Complex D includes Structure Locality 7, the area surrounding Feature 5, a flat-based storage pit located at the western edge of the site adjacent to the probable wagon road corridor. Two smudge pits and one grave (Feature 115) are located within 4.5 m of Feature 5 and may be associated as elements of Structure Locality 7.

Structure Locality 8 is defined by a cluster of four flat-based pits (Features 33, 69, 116, and 123) located 9.5 m southwest of Feature 5. Although these pits are not situated at right angles (as is the case in Structure Locality 5), they form a symmetrical parallelogram, with axial alignments of N77°W between Features 69 and 123, and N75°W between Features 33 and 116. Distances between the pits in each pair are approximately equal (2.5–2.6 m). These four pits



Figure 5.16. Detailed plan of Residential Complex D at Ayers Town.

define a minimum building footprint of 4.4 m x 4.8 m (21.12 m² or 227.33 ft²), similar to ethnographic descriptions of early nineteenth-century Catawba cabins as 16 feet (4.88m) square (Speck 1939), but smaller than mid-eighteenth-century Catawba houses documented at Nassaw. Pit alignments suggest a structure with an eastern wall oriented N18°E. Borrow pits located north (Feature 61) and south (Feature 122) of the Structure Locality 8 cabin seat are probably associated with this residential complex, as are three cob-filled pits (Features 68, 121, and 127) and one posthole. Cemetery 3 is located 4.5–9.5 m east of Structure Locality 8, and the majority of the graves in this mortuary are oriented parallel to the presumed Locality 8 structure. This is in contrast to the graves of Cemeteries 1 and 2, which appear aligned relative to the probable road corridor. The spatial association of these graves with the Structure Locality 8 (as part of Residential Complex D) household is comparable to a Federal period household cemetery documented at the nearby site of Old Town.

Structure Locality 9 designates a 2.5 m x 2.0 m rectangular post-in-ground building pattern located 17 m east of Structure Locality 8 and 6.5 m east of Cemetery 3. This post pattern is aligned and oriented with reference to the Structure Locality 8 pattern and appears to be associated as a component of Residential Complex D.



Figure 5.17. Detailed plan of Residential Complex E at Ayers Town.

Residential Complex E

Residential Complex E consists of Structure Localities 10, 11, and 12, and the surrounding facilities (Figure 5.17). The principal domicile of this group, Structure Locality 11, is defined by three flat-based pits (Features 155, 162, and 163) and one shallow basin (Feature 158) located south of the road corridor on the eastern end of the site. These pits probably represent subfloor storage facilities beneath a cribbed-log structure (as inferred by the absence of surrounding postholes) that measured a minimum of 4.7 m x 3.4 m and was oriented approximately N116°W.

Cob-filled pits intrude Features 158 and 162, indicating reuse of this surface after abandonment of the pits and, presumably, after abandonment of the superstructure. Two other cob-filled pits, one posthole, and one possible clay-processing facility are located adjacent to this pit cluster and probably represent facilities associated with the Locality 11 residence.

Structure Locality 10 consists of two small, flat-based pits (Features 141 and 170) within a cluster of 16 postholes at the southern edge of the site, three meters southwest of Structure Locality 11. Three cob-filled smudge pits are located on the margins of this cluster. Although the postholes present no coherent structural pattern, the incidence of 40% of the site's postholes within a 3.5 m radius around Features 141 and 170 probably indicates a former post-in-ground structure in which only the deepest postholes survived plowing and surface deflation. This

pattern contrasts with other structure localities, and may represent a particularly early or anachronistic element of the community. An earlier (c. 1781–1790) date for Structure Locality 10 contexts is indicated by the presence of creamware, tin-enameled, slip-decorated, and "rosso antico" sherds, and the absence of pearlware sherds.

Feature 185, a small, flat-based pit located at the edge of the excavation 10 m southeast of Structure Locality 11, may represent a subfloor storage facility, and is the anchor for a provisional Structure Locality 12. Three postholes and two cob-filled pits situated within 4.5 m of Feature 185 may also be elements of Residential Complex E.

Structures with small (i.e., <60 cm in diameter), flat-based subfloor pits (i.e., Structure Localities 3, 6, 10, and 12) may have been functionally distinct from those defined around clusters of larger, flat-based storage pits. These posited structures are all situated in "back row" positions, 9–10 m from the road corridor, whereas groups of larger subfloor pits are positioned adjacent to this corridor (with the exception of Structure Locality 8). With one exception (Feature 116), small flat-based pits do not occur in clusters with larger flat-based facilities, and these smaller facilities (except Features 170 and 185) tend to contain much lower densities of household refuse than their larger counterparts. Differentiation of these flat-based pits in terms of size, morphology, content, and spatial arrangement suggests that the respective superstructures may not have been functionally equivalent, but their proximities may indicate complementary relationships in which structures with smaller flat-based pits are paired with structures (presumed primary domiciles) with larger flat-based pits. If this is the case, then Structure Localities 2 and 3 would be paired as buildings associated with the same residence, as would Structure Localities 5 and 6 and Structure Localities 10, 11, and 12.

Non-Residential Activity Areas

Other facilities are less clearly referable to particular residential complexes. Three borrow pits (Features 139, 190, 191) are located between Structure Localities 8 and 10, but are not demonstrably associated with either. Feature 140, a large flat-based pit that intrudes Feature 190, differs from other large flat-based pits in wall/orifice morphology (with out-flaring rather than vertical walls and a substantially larger orifice than base) and content, and does not appear to have been a substructure pit within a domicile. A cluster of 11 cob-filled pits flanked by Structure Localities 10, 11, and 12 may relate to Residential Complex E activities, but the high density of these facilities at the margin of the site may reflect its use as a special activity precinct accessible to the entire community. Spatial segregation of these smoke-producing facilities at the leeward edge of the village may reflect efforts to control the effects of activities with potential to annoy the entire community. The spatial segregation of clusters of cob-filled pits is also observed at the mid-eighteenth-century site of Nassaw.

Cemeteries

The three cemeteries documented at Ayers Town may also represent community-scaled precincts (Figure 5.18). In the southern "neighborhood," the areas of domestic space (Residential Complexes D and E) are located 28–38 m apart. The intervening space, bounded by the presumed road to the north, and Residential Complexes D and E on the west and east (respectively) contains Cemeteries 1, 2, and 3, and Structure Locality 9. Cemetery 1 is situated



Figure 5.18. Detailed plan of Cemeteries 1, 2, and 3 at Ayers Town.

adjacent to the posited road corridor, and 9 of the 15 graves in this cemetery (Group B, containing Features 41 and 47–54) are oriented with respect to the probable road. Another cluster within Cemetery 1 (Group A) is aligned approximately north–south and includes Features 42–46 and 111. Cemetery 2, situated equidistant between Structure Localities 8 and 10, consists of six graves (Features 7, 132, and 135–138), all of which appear to be oriented with respect to the presumed roadway. Cemetery 3 includes nine graves (Features 36–39, 115, 117, 119, 128, and 129) and is located 4.25 m east of Structure Locality 8. The orientation and alignment of these graves appear to reference Structure Locality 8 rather than the roadway, and this cemetery may represent a family plot associated with Residential Complex D. One grave, Feature 93, is disjunct from these cemetery clusters, and is likely associated with the Residential Complex A household.

These cemeteries undoubtedly originated during and grew episodically throughout the Federal period occupation of Ayers Town. These plots may also have continued in active use after residential use of the site ended (c. 1800). The continued use of cemeteries in abandoned Catawba village sites is attested by Catawba informants, who told Speck (1939) that New Town (abandoned c. 1820) cemeteries were used through the mid-nineteenth century. The total number of graves (n=31) identified in the investigations at Ayers Town approaches the probable site population (as gauged by five residential areas), and probably reflects extended use of the cemetery plots.

Summary

To summarize, investigations at Ayers Town defined Federal period contexts and facilities organized as five spatially discrete residential complexes arrayed along a central road corridor with ancillary community spaces devoted to mortuary activities and production activities. These residential complexes, which are probably referable to individual Catawba households, vary considerably in composition, but each is defined as including one or more large, flat-based pits interpreted as subfloor storage facilities beneath cribbed-log domiciles. Clusters of such pits indicate probable dwellings up to 4.8 m in dimension. Four probable domiciles are flanked by secondary structures defined either by posthole clusters or by the incidence of smaller (<60 cm diameter), flat-based storage pits. Four residential complexes include shallow, basin-shaped borrow pits; all include cob-filled smudge pits indicative of pottery production and maintenance. The extent of residential complexes also varies considerably, ranging from 90 m² (Residential Complex A) up to 165 m² (Residential Complex B).

It is unclear whether all five residential complexes at Ayers Town were simultaneously occupied. Artifacts associated with Residential Complex B indicate a slightly later date for deposition (and presumed abandonment) within Feature 55 than for other subfloor facilities, and it can be inferred that Residential Complex B represents the latest active Federal period Catawba occupation of the site.

The five probable households likely constitute the core of the larger Ayers Town settlement observed by Henrietta Liston in 1797. Liston is not explicit about the size of Ayers Town, but notes that it was "one of their Towns...for they are settled in three Towns," among which a population of 300 was distributed. She also noted seeing two log houses and "several of the Wigwhams", and recorded Ayers' apology "for the smallness of their numbers," because "the young Men had not yet come in from hunting." Reconnaissance of the area surrounding the site identified another Federal period Catawba residential area approximately 80 m northwest of Structure Locality 5; this may represent another household seated along the former roadway. Extensive soil borrowing from areas northwest and southeast of 38YK534 may have obliterated many other outlying residential area associated with Ayers Town.

Chapter 6

MATERIAL CULTURE AT AYERS TOWN

This chapter considers the more than 20,000 artifacts (excluding subsistence remains and fire-broken rock) recovered by University of North Carolina archaeological investigations and attributed to the Federal period Catawba occupation of Ayers Town. These artifacts were recovered primarily from metal detecting, test unit and block excavations, and pit features; a few incidental finds also were made during the mechanical stripping of topsoil from the site.

The assemblage associated with Ayers Town, as would be expected at a Native American habitation occupied in relatively close proximity to Euroamerican settlements during the late 1700s, contains a mixture of goods locally produced by the site's inhabitants as well as manufactured items from more distant sources. In terms of sheer numbers, Catawba-made pottery is the predominant artifact class, comprising over 85% of the total assemblage. It is likely that these reflect vessels made for use by Catawbas as well as vessels marketed to Euroamerican settlers (Riggs et al. 2006). The 210 non-kaolin clay pipes and pipe fragments, representing just over one percent of all artifacts found, are the only other significant group of artifacts likely made by Ayers Town residents.

The remaining artifacts (excluding architectural debris such as fired clay and daub, and recovered samples of raw materials used in pottery production) were obtained primarily from Euroamerican sources through trade, purchase, gifting, or as payments derived from the developing Catawba land-leasing system (Pettus 2005). Many of the iron artifacts, such as hand-wrought nails and cast-iron vessel fragments, likely derive from the Hill-Hayne Iron Works (also known as the Aera & Aetna Iron Works), located on Allison Creek less than 20 mi above the Catawba towns and in operation from 1778 to 1802 (Commons 1910:304–312; SCA&H 2008). Calvin Jones, a visitor to New Town in 1815, noted that the Catawbas had no blacksmith (Jones 1815). Other items, such as English coarse and refined earthenwares, stonewares, porcelain, and glassware, derive from much more distant sources. By the time Ayers Town was established, many manufactured goods would have been accessible to Catawbas through commercial establishments in Camden, Charleston, and perhaps Charlotte.

Historical Documentation and the Archaeological Record

The only known surviving record of goods purchased on behalf of the Catawbas during the period (c. 1781–1800) that Ayers Town was occupied is provided in a list dated May 23, 1784 from the papers of Joseph Kershaw, a Camden merchant (Kershaw 1784) (Table 6.1). Notations on the list indicate that the goods were purchased in Charleston and that Kershaw was the agent responsible for distributing them; the circumstances surrounding the distribution are not known. These goods likely were intended for the entire Catawba Nation, which at this time included Ayers Town, established almost three years earlier, and at least one or two settlements on the opposite side of the river.

CHAPTER 6

D	<u> </u>		
Description	Quantity		
Dowlas No. 1 (3 yds wide)	149 yards	is 3d per yard	
Dowlas No. 2 (3 yds wide) $D_{1} = \frac{1}{2} $	151 yards	Is 4d per yard	£10 IS 4d
Dowlas No. 3 (4 yds wide)	200 yards	Is 6d per yard	
Dowlas No. 4 (6 yds wide)	304 yards	Is 8d per yard	
Dowlas (as wrapper) (2 yds wide)	25 yards	Is 3d per yard	
Yellow Flannel (3 yds wide)	89 ¹ / ₂ yards	Is 9d per yard	£/ 16s /1/2d
Rose Garters	2 gross	10s 8d per gross	£1 Is 4d
Ribbed Garters	l gross	12s 8d per gross	12s 8d
Highland Yards (Garters?)	l gross	lls 4d per gross	lls 4d
Stitching Thread	¹ / ₂ dozen	$\pounds 1$ 6s per $\frac{1}{2}$ dozen	£1 6s
Stitching Thread	¹ / ₂ dozen	$\pounds 1 \ 10s \ per \frac{1}{2} \ dozen$	£1 10s
Red Cloth (2 yds wide)	88 yards	4s per yard	£17 12s
Red Cloth (1 yd wide)	44 yards	3s per yard	£6 12s
Blue Cloth (1 yd wide)	44 yards	3s per yard	£6 12s
Blue Cloth (1 yd wide)	27 yards	6s per yard	£8 2s
Stroud	12 yards	80s per yard	£48
Shirts	7 dozen	35s per dozen	£12 5s (listed as £7 5s)
Laces	5 ³ / ₄ dozen	1s per dozen	5s 9d
Fish Hooks	500	4s 8d per 100	£1 3s 4d
Colored Thread	6	4s each	£1 4s
Cutteaus	12 dozen	3s 9d per dozen	£2 5s
Cutteaus	4 dozen	6s per dozen	£1 4s
Thimbles	2 dozen	2s per dozen	4s
Tin Kettles	2	3s 9d each	7s 6d
Scissors	6 dozen	12s per dozen	£3 12s
Looking Glasses	5 dozen	18s per dozen	£4 10s
Needles	2000	12s per 1000	£1 4s
Blanketting	18 yards	90s per yard	£81
Dark Ground Calico (2 yds wide)	19¾ yards	4s 4d per yard	£4 5s 7d
Light Ground Calico (1 yd wide)	10¼ yards	4s 4d per yard	£2 4s 5d
Fine Striped Calico (1 yd wide)	17 yards	5s per yard	£4 5s
Fine Striped Calico (2 yds wide)	29 yards	4s 4d per yard	£6 5s 8d
Narrow Calico (1 yd wide)	$22\frac{1}{2}$ yards	4s per yard	£4 10s
Curtain Calico (6 yds wide)	105 yards	3s 9d per yard	£19 13s 9d
Sealing Wax	1 pound	12s per pound	12s
Gun Powder	37 ¹ / ₂ pounds	1s 8d per pound	£3 2s 6d
Bar Lead	600 pounds	28s per 100 pound	£8 8s
Striped Linsey (2 yds wide)	69 yards	1s 9d per yard	£6 9d
Embossed Surge	$21\frac{1}{2}$ yards	2s per yard	£2 3s
Red Lead	1 keg	£3 10s per keg	£3 10s
Blankets (held in Charleston)	70	7s each	£24 10s
Blue Cloth (1 yd wide)	28 yards	6s 8d per yard	£9 6s 8d (listed as £9 12s 8d)
Flour	1 barrel	£1 17s 4d per barrel	£1 17s 4d
Jamaican Rum	3 gallons	5s per gallon	15s
Thimbles	9 dozen	2s per dozen	18s
Tin Cups	2	6d each	1s
Salt	4 bushels	7s per bushel	£1 8s

Table 6.1. List of Goods Distributed by Joseph Kershaw to the Catawba Indians, May 23, 1784.¹

¹from the Joseph Brevard Kershaw Papers, South Caroliniana Library, University of South Carolina, Columbia. Prices are in British pounds (\pounds) , shillings (s), and pence (d).

The quantity of goods, costing £414.5.6^{1/2} (including more than £45 to transport from Charleston to Camden and then on to the nation), is extensive, but perhaps the most interesting aspects are: (1) the disparity between the items listed and the manufactured goods found archaeologically at Catawba sites of the late eighteenth century; and (2) the predominance of materials and items related to general sewing and dressmaking. Most of the items on the Kershaw list are perishable fabrics that have not been preserved in the archaeological record. These include 829 yards of dowlas (linen), 231 yards of plain red and blue cotton (?) cloth, 203^{1/2} yards of printed calico, 180 yards of flannels, striped linseys, and embossed surge, 18 yards of blanketing, and 12 yards of stroud. These fabrics, along with purchased thread and lace, would have been used by Catawba women to make clothing and for bedding. Items provided for sewing garments include 2,000 needles, 11 dozen thimbles, and six dozen scissors. Examples of all three were found at Ayers Town. The only manufactured garments on the list are 24 dozen rose garters, 12 dozen ribbed garters, 12 dozen Highland yards (garters?), and seven dozen shirts. Notably absent are coats, vests, and other men's garments that are represented by the various brass, pewter, and Britannia buttons recovered from the site.

In her description of Ayers Town, Henrietta Liston noted that when she first met Col. Ayers, "the old Warrior [was] sitting in a Chair, at the side of the fire, with a blanket jacket. His Wife ... sat on a Stool, with ... a woolen Petticoat & a blanket about her naked shoulders" (Liston 1797:26). Before leaving, Liston revisited the town's leader. "We found that, upon hearing from the Servants who we were, he had drest himself, in an old green cloth Coat with gold binding, which buttoned very imperfectly over his naked body." (Liston 1797:28). A later visitor to New Town in 1815 observed "women with blankets" and noted that the residents there "Dress in the English fashion – homespun ex[c]ept old Mushs family." He also commented that "The women make clothes tho they do not spin" (Jones 1815).

Other perishable or consumable goods on the Kershaw list include gunpowder, sealing wax, bar lead, red lead, flour, Jamaican rum, and salt. Of these, the gunpowder and bar lead are represented both directly and indirectly by molded lead balls and shot and gun parts. Red sealing wax was recovered both as small fragments from feature contexts and as rim decorations on some of the Catawba-made pottery; the use of rum is reflected by the many dark green bottle fragments found, including a whole bottle from Feature 108 and a nearly complete bottle from Feature 89.

The remaining items on the list include 500 fish hooks, 16 dozen cutteaus (large knives used for carving or fighting), five dozen looking glasses, two tin kettles, and two tin cups. With the exception of fish hooks, all are represented in the site's artifact assemblage, though evidence of tinware exists only as small, unidentifiable fragments. Absent from Kershaw's list, but well represented in the Ayers Town assemblage and likely acquired through Camden or Charleston, are European ceramics, glassware, tablewares, brass kettles, glass beads, Jew's harps, harness hardware, and firearms.

Finally, the Kershaw list mentions 70 blankets that were being "held in Charleston," as well as a notation that 270 additional blankets were being provided "exclusive of 70 held in Charleston." This number (270) may reflect the Catawbas' population size in 1784 if a blanket was provided for every man, woman, and child in the nation. Swanton (1946) estimates that there were 400 Catawba on the eve of the American Revolution in 1775, while McReynolds (2004:45) estimates a population of 200–233 at the close of the Revolution based on an estimate

of warrior strength provided by John Smyth (1784). In 1797, Henrietta Liston noted that the Catawbas' numbers, in three towns, were "now reduced to 300" (Liston 1797:25).

Description of Artifacts

The archaeological assemblage associated with Ayers Town is described below using a modified version of an organization format established by Stanley South (1977) which considers artifacts as functional items reflecting past behaviors. Artifact classes representing similar activities are grouped together and discussed both in terms of their physical attributes as well as the past behaviors represented by their occurrence at the site. While South's original purpose was to define assemblage patterns through quantitative analysis that could be compared with other patterns to ascertain broader evolutionary trends in the archaeological record, the use here of South's functional groupings is simply to provide a meaningful organizational framework for discussing the Ayers Town artifacts. The Ayers Town artifact assemblage is summarized in Table 6.2.

Architecture Activity Group

When Henrietta Liston visited Ayers Town in 1797, she observed its Catawba residents living in two kinds of houses. One of these she recognized as a style borrowed from surrounding Euroamerican settlers, noting that "[m]any of them build their Log Houses of the same form [as their white neighbors], always adhering to one apartment only" (Liston 1797:25). These houses likely were similar to those inferred at Old Town based the distribution and spatial arrangement of deep, rectangular cellar pits (Davis and Riggs 2004; Davis et al. n.d.). At New Town, where a few cabin loci had never been subjected to plowing, similar log structures with preserved hearths and fireboxes, and the collapsed remains of stick-and-clay end chimneys, were documented through excavation (Davis and Riggs 2005; Riggs et al. 2006). These hearths were composed of stone slabs. Calvin Jones (1815) noted that while two New Town houses had wood floors, most had dirt floors. Evidence for cabins with raised floors was found at two New Town cabin loci; three other loci revealed surface hearths associated with dirt-floored cabins (Davis and Riggs 2006; Riggs et al. 2006).

Frank Speck, who conducted ethnographic fieldwork among the Catawbas between 1913 and 1944, provides an additional description of Catawba house construction based on interviews with elderly tribal members, including Margaret Wiley Brown who was a small child when the Treaty of Nation Ford was signed in 1840 (Merrell 1983:248; Speck 1946). Though her memory did not extend to the period Ayers Town was occupied, it is likely that architectural styles did not change appreciably during the several decades following the town's abandonment. Speck describes Catawba architecture as follows:

The Catawba house, of as early a type as could be remembered by any of the older people in their childhood, was a small structure of either plain unbarked, or of peeled and roughly squared logs. From the smallest of these houses twelve by eighteen feet in dimension intended for one small family, they ranged to those seldom more than six feet larger in mean measurements. Lacking windows, having only a door at the leeward end, with hard trodden dirt floors, they had a fireplace at one end, of stone construction, and slat bedsteads on the long sides to accommodate the sleepers. Such homes were to be seen until lately. An example constructed by Chief Blue some years ago is shown in Fig. 25. It lacks the

Activity Group & Artifact Class	Ν	Activity Group & Artifact Class	Ν
Architecture Group		Horse Management Group	
Nails	277	Harness and Bridle Hardware	12
Daub and Other Fired Clay	2.5 kg	Saddle Hardware	3
Arms Group	C	Wagon Hardware	1
Gun Parts	7	Horseshoe and Horseshoe Nails	5
Gunflints and Gunflint Flakes	21	Horse Bell	1
Ammunition	42	Miscellaneous Hardware Group	
Clothing Group		Tacks, Staple, and Rivets	11
Sewing Implements	19	Hinge and Hasps	3
Clothing Fasteners	28	Metal Resource Group	
Glass Beads	1,495	Brass	14
Shoe Buckle	1	Silver	20
Food Preparation and Consumption Gr	oup	Pewter	8
Catawba Pottery	17,134	Lead	51
Imported Pottery	320	Iron	81
Glass Containers & Tableware	203	Pottery Production Group	
Cast Iron Vessels	40	Potter's Clay Samples	66
Tinware	57	Red Sealing Wax Fragments	15
Knives and Spoons	9	Shell Scrapers	4
Personal Group		Burnishing Stones	5
Jewelry and Ornaments	12	Fired Clay Segments and Lumps	32
Smoking Pipes	253	Artifacts of Indeterminate Function	
Entertainment Items	15	Worked Stone	20
Mirror Glass	8	Clay	2
Other Items (coin, watch parts, bell-	11	Brass	4
like object, key, pocket knives,		Iron	11
dividers, fishhook, fish spear)		Wood	2
		Total (excluding daub & other fired clay)	20,323

Table 6.2. Summary of the Ayers Town Artifact Assemblage.

finishing of clay chinking between the logs, and the fireplace. The roof is of riven oak slabs laid shingle fashion in two overlapping rows. The ridge-pole rests upon the short logs at the peak. The log house has been superseded in the last half century by similarly proportioned plain buildings of sawed timber, with rough plank flooring. [Speck 1946:6]

Liston recognized another common house type at Ayers Town as being a more traditional form. "In the course of our visits through the Town, we entered several of the Wigwhams (the original form of their Houses). The fire is in the middle. In one of them we found a sick Indian lying half naked, on a Deerskin near the fire, & in all of them the half naked wretches lay indolently on skins round the fire place" (Liston 1797:27). Although she doesn't describe the method of construction, it is presumed that these too were of cribbed log construction and that the distinguishing feature was the use of a central hearth instead of a fireplace and chimney at the end of the structure. This interpretation is consistent with the absence of posthole wall patterns around the fact that Liston didn't consider it necessary to make a distinction beyond the central placement of the fire.



Figure 6.1. Hand-wrought nails from Ayers Town.

Only three artifact categories found at Ayers Town can be confidently associated with the architecture described above: nails, fired clay, and daub.

Nails

Two hundred seventy-seven iron nails and nail fragments were recovered (excluding the single wire nail discussed in Chapter 4) (Figure 6.1). The overwhelming majority of these likely are associated with the occupation of Ayers Town. During analysis, nails were classified by shank type (hand-wrought or machine-cut), head type (hand wrought with two facets, hand-wrought with four facets, or machine made), tip type (squared, pointed, or flattened), and condition (complete or fragment). Maximum length and median diameter also were measured (to nearest 0.1 mm), and bent or clinched nails were noted. Twenty-seven of the analyzed nails were clinched and 19 others were bent.

Ayers Town nails fall into three categories: hand wrought (n=246), machine cut (n=25), and indeterminate (n=6). Over 91% of the hand-wrought nails with identifiable heads nails had four facets; the remainder had T-shaped or two-faceted heads. Two thirds of those with identifiable tips were pointed, while the remaining ones were spatulate, or flattened. The size distribution of hand-wrought nails indicates that most (i.e., those between 2d and 6d in size) likely were used as roofing nails to fasten wood shingles, though some may have arrived at Ayers Town as fasteners on finished items such as furniture, crates, or wagon equipment (Table 6.3). Although nails and nail fragments were recovered largely from metal detecting and plow zone excavation, 60 hand-wrought nails were found in the fill of Features 3, 4, 33, 55, 69, 72, 91, 92, 107, 108, 122, 123, 124, 155, and 185. All but five of these features are interpreted as sub-floor storage pits. The spatial distribution of nails coincides with the overall village area but does not show concentrations in areas identified as house seats.

Penny Size	Length (inches)	Length (nearest mm)	Hand-Wrought Nails	Machine-Cut Nails	Not Identified	Total
2d	1	22-28	11	0	0	11
3d	1 1/4	29-35	11	1	0	12
4d	1 1/2	36-41	13	0	0	13
5d	1 3⁄4	42-47	14	4	0	18
6d	2	48-54	19	3	0	22
7d	2 1/4	55-61	6	2	0	8
8d	2 1/2	62-68	7	2	0	9
9d	2 3⁄4	69-73	2	0	0	2
10d	3	74–79	2	0	0	2
12d	3 1/4	-	1	0	0	1
16d	3 1/2	-	1	0	0	1
Fragment	-	-	160	12	6	177
Total			247	24	6	277

Table 6.3. Size Distribution of Nails from Ayers Town.

During the period that Ayers Town was occupied, American nail technology was transformed from a process where nails were hand-wrought and individually made to one where the process became fully mechanized. The transition began about 1790 with the production of machine cut nails that were individually headed; by 1805 machines that also created the nail head became available (Nelson 1968:6). Not surprisingly, a few nails from Ayers Town reflect this transition. Twelve machine-cut nails and 13 nail fragments were recovered from metal detecting and plow zone excavation. Of the 19 specimens with heads, 14 were hand-wrought and thus easily fall within the suspected time frame for Ayers Town. The others, with machine-manufactured heads, may or may not reflect later Catawba activities at the site. Though the sample size is small, the size distribution of machine-cut nails differs from that of the wrought nails, with a relatively higher proportion of larger nails. This may indicate that the two nail classes were used differently.

Daub and Other Fired Clay

Fragments of fired clay were recovered mostly from waterscreening feature fill through 1/4inch and 1/16-inch mesh, and total about 2.5 kg in weight (Table 6.4). Several of these fragments exhibit log or stick impressions and are interpreted as representing chinking clay from fireplaces or stick-and-clay chimneys that has been fire-hardened, or perhaps from chinking between the wall logs of a burned cribbed-log structure. Other fragments lacking these characteristics may represent weathered daub, fragments of clay hearths, pieces of fire-baked earthen floors near hearths, or clay that was fired incidental to some other cultural or non-cultural event.

Over half (1,409.6 g, 55.6%) of daub and fired clay came from 14 features identified as cellars or storage pits. Of these, most were recovered from Features 123 (482.4 g), 140 (111.7 g), and 170 (548.2 g). While the Feature 123 and 140 fragments mostly represent architectural daub, those from Feature 170 appear to represent broken pieces of a clay hearth. The Feature 170 fragments are 10 large, slab-like pieces about 20-25 mm thick that have a smoothed (hearth?) surface and an opposing irregular surface.

CHAPTER 6

Context	Weight (g)	Context	Weight (g)
Storage Pits		Soil Borrow Pits	
Feature 3	53.6	Feature 72	155.7
Feature 4	4 4	Feature 73	14.9
Feature 5	16.9	Feature 89	189.8
Feature 33	19.1	Feature 91	58.3
Feature 55	43.6	Feature 92	86.7
Feature 69	64.7	Feature 122	75.4
Feature 106	0.9	Feature 124	125.7
Feature 107	14.7	Feature 139	24.0
Feature 123	482.4	Feature 190	62.0
Feature 140	111.7	Sub-total	792.5
Feature 155	23.4	~	
Feature 162	3.3	Refuse-Filled Stump Ho	les
Feature 163	22.7	Feature 95	1.6
Feature 170	548.2	Feature 142	14.7
Sub-total	1409.6	Feature 185	23.5
		Sub-total	39.8
Smudge Pits			
Feature 22	2.3	Postholes	
Feature 26	4.5	Feature 145	1.3
Feature 40	1.0	Feature 189	0.8
Feature 58	6.4	Sub-total	2.1
Feature 61	39.6		
Feature 22	2.3	Indeterminate	
Feature 26	4.5	Feature 101	48.0
Feature 40	1.0		
Feature 58	6.4	Non-Cultural	
Sub-total	53.8	Feature 28	187.5
		Total	2,533.3

Table 6.4. Daub and Other Fired Clay from Archaeological Features at Ayers Town.

Significant quantities of both daub and fired clay also were recovered from nine features interpreted as soil borrow pits, with almost 60% coming from Features 72, 89, and 124. These usually were found with other artifacts representing secondary trash deposits. Nine cob-filled smudge pits also yielded small quantities of fired clay, but these specimens likely represent remnants of baked clay pit floors and walls rather than architectural debris.

Arms Activity Group

Although investigations at Ayers Town produced only a few gun parts, moderate numbers of gunflints, gunflint flakes, and lead rifle balls or shot were recovered. This pattern is consistent with the ones observed at the partly contemporary site of Old Town and the later Federal period site of New Town (Davis and Riggs 2003), where the ratios of gun parts to lead rifle balls are 0.10:1 (n=64) and 0.18:1 (n=120), respectively. These recovery rates compare favorably with the ratio of 0.17:1 (n=49) at Ayers Town and reflect a shift away from the fragile, poorly made trade muskets that were common earlier in the eighteenth century and toward more robust and reliable American-made rifles.

In contrast, discarded gun parts and ammunition were ubiquitous at the earlier, mideighteenth century site of Nassaw-Weyapee, where broken or discarded gunparts occurred at a rate of 1.27 for every piece of lead shot found (a ratio of 1.27:1 (n=125), or six times the rate seen at Ayers Town). At the contemporary settlement of Charraw Town, data recovery was far less extensive than at Nassaw-Weyapee (Fitts et al. 2007); however, a similar ratio (1.25:1, n=27) of discarded gun parts to lead shot was observed. This pattern clearly points to the Catawbas' strategic importance to their South Carolina allies during the Seven Years War, their ready access to English-manufactured weapons, and the less durable firearms they received through that alliance.

Gun Parts

Seven flintlock gun parts were recovered during metal detecting and plow zone excavation; none were found in features. They include an iron frizzen spring, a brass pistol butt cap, three iron triggers (including one set trigger), a brass trigger guard, and a brass trigger guard finial (Figure 6.2). The butt cap, which has been partially flattened and reshaped, is undecorated.

Gunflints and Gunflint Flakes

Seven gunflints and 14 small flakes from gunflints were recovered. Three gunflints came from metal detecting, plowzone excavation, and backdirt from mechanical stripping; the remainder, including all gunflint flakes, were found in features. Only two of these, gunflint flakes from Features 122 and 140, came from feature contexts not interpreted as sub-floor storage pits. Gunflints were recovered from Features 5, 33, 69, and 163; the specimen from Feature 69 is made of a local aphyric rhyolite. Small gunflint flakes, identified as such based on raw material, were found in Features 55 (n=2), 69 (n=5), 108 (n=4), and 123 (n=1). These flakes are likely the byproducts of refurbishing gunflints to extend their use life. All of the gunflints in the sample have been heavily reworked but are still similar in size, ranging from 20–28 mm in length, 14–21 mm in width, and 6–11 mm in thickness.

The Ayers Town gunflints vary in terms of raw material, method of manufacture, and likely location of manufacture. Aside from the one specimen made of local material, four are made of light gray to dark gray, translucent flint and three are made of honey-colored or blond, translucent flint. This raw material distribution is also reflected in the sample of gunflint flakes, where eight are light gray to dark gray flint and six are honey-colored or blond flint. Flints with these color characteristics are usually attributed to English and French sources, respectively (Kenmotsu 1990). Of the six gunflints that can be classified by method of manufacture, two were produced on prismatic blades and the remaining ones were made on spalls. Blade and spall-type gunflints were manufactured using both types of flint.

Prior to the expansion of the English gunflint industry in the 1790s, France was a major source of gunflints used both in Britain and in British North America. It is not surprising, then, that French-manufactured gunflints are well represented at Ayers Town and the late colonial–early post-colonial Catawba sites of Old Town, Nassaw-Weyapee, and Charraw Town. In contrast, the gunflint assemblage at New Town is dominated by English-manufactured flints.



Figure 6.2. Gun parts, gunflints, and ammunition from Ayers Town: triggers (a); set trigger (b); frizzen spring (c); pistol butt cap (d); trigger guard (e); trigger guard finial (f); blade gunflints (g); spall gunflints (h-i); rhyolite gunflint (j); lead balls (k); flattened lead balls (l); and chewed lead balls (m).

Ammunition

Firearm ammunition is represented by 27 lead balls and 15 pieces of small lead shot recovered from metal detecting (n=16), plow zone excavation (n=3), and features (n=30). All but one of the feature specimens came from a probable sub-floor storage facility. Numerous other artifacts were recovered, including lead sprue and other lead fragments, which likely are byproducts of manufacturing ammunition on-site; they are described with other artifacts within the Metal Resource Group.

Of the 27 lead balls found, three had been deformed by chewing, eight were flattened (presumably from impact), one was both flattened and chewed, and the remainder were spherical. Diameter measurements for specimens in this last group range from 10.2 mm (.40 cal.) to 14.7 mm (.58 cal.) (n=15). The lead shot range from 3.0 mm (.12 cal.) to 7.9 mm (.31 cal.) in diameter (n=15). The presence of lead sprue indicates that ammunition was made onsite; however, no bullet molds were found. A single bullet mold was recovered from the contemporary settlement of Old Town.

Clothing Activity Group

As noted earlier, the 1784 list of goods provided by Joseph Kershaw to the Catawbas shows that the inhabitants of Ayers Town likely were well provisioned to construct much of their own clothing (Table 6.1). These provisions included fabrics of various types and substantial quantities of thread, lace, needles, thimbles, and scissors. Historical accounts such as the one by Henrietta Liston, as well observations by other visitors to the Nation during the period Ayers Town was occupied, indicate that many, if not, most Catawbas had adopted European styles of dress by the late eighteenth century, and the several buttons of various sizes and cufflinks recovered from the site imply that Catawbas' clothing included manufactured as well as homemade garments. While visiting a contemporary settlement (probably represented by the archaeological site of Old Town) across the river, the Rev. Dr. Thomas Coke (1791) noted that "In general they dressed like the white people. But a few of the men were quite luxurious in their dress, even wearing ruffles, and very showy suits of clothes made of cotton."

Thus, although the Catawbas had adopted the wardrobes of their white neighbors, they used these garments to create an appearance that departed from Euromerican norms and was distinctly non-Western. It follows that, on some occasions, items such as buttons may have been used, or recycled, in ways that were different from their intended or original function. While conspicuously absent from Kershaw's ledger and written accounts by visitors to the Nation during the post-Revolutionary era, the archaeological record also suggests strongly, through the ubiquitous occurrence of small glass beads, that Catawbas likely further differentiated their style of dress by the application of beaded embroidery to shirts, dresses, and jackets. Unfortunately, we have no direct evidence about the nature of this embroidered beadwork or possible gendered patterns of occurrence.

Regarding gender associations for other durable artifacts directly attributable to clothing, Hinks (1988:5–6) notes that garments with buttons as fasteners normally were worn by men in England and colonial America during the eighteenth century and that women's clothing usually was fastened with lace or hooks-and-eyes. A similar association for the Catawbas can be posited but not demonstrated, though observations made by contemporary informants are consistent with this interpretation.

Artifacts from Ayers Town that are associated with the construction, use, and decoration of clothing include sewing implements, clothing fasteners, glass beads, and a shoe buckle, and they compare favorably in terms of kinds of artifacts recovered and their relative frequency of occurrence with the assemblage of clothing-related artifacts found at Old Town.

Sewing Implements

Nineteen artifacts are interpreted as sewing implements; they include two brass thimbles, seven scissor fragments, five steel needle fragments, and five straight pins (Figure 6.3). One of the thimbles was recovered by metal detecting; the other is represented by two fragments that were recovered from Feature 33, a sub-floor storage pit. The poorly preserved scissor fragments all came from Zone 1 in Feature 163, another sub-floor storage pit, and appear to represent a single pair of scissors.



Figure 6.3. Brass thimble (left), straight pins (middle), and pewter shoe buckle fragment (right) from Ayers Town.

All of the needle fragments and straight pins came from 1/16-inch washings and heavy fractions of waterscreened and flotation-processed feature fill. The round-headed straight pins are made of brass wire, and individual examples were recovered from Features 123, 155, 163, 185, and 190. Four of these features are storage pits. Five heavily corroded pieces of fine, straight, steel wire needles were recovered from Features 3 (n=2), 55 (n=2), and 123 (n=1), all probable sub-floor storage facilities.

Clothing Fasteners

Twenty-one buttons, a pair of cufflinks, three cufflink buttons, and five glass insets from buttons were recovered from metal detecting (n=5), plow zone excavation (n=4), and features (n=21) (Figures 6.4 and 6.5). Of those specimens recovered from archaeological features, only three came from contexts not interpreted as a sub-floor storage pit or cellar. It is likely that these artifacts were fasteners from manufactured garments rather than items which were purchased and applied to Catawba-made clothing. While a few buttons, being of identical size and type, may have come from the same garment, most exhibit a range of sizes, types, and decoration. As for how they were used, Hinks (1988:84) has argued that "in the eighteenth century buttons were primarily associated with articles of men's clothing, upon which they were profusely used. These garments primarily included great coats, coats, frocks, waistcoats, breeches and trousers, jackets, shirts, and banyans. A variety of different types of buttons were used on various garments, and they can normally be distinguished from each other." The degree to which this applies to Catawbas in the late eighteenth century is not entirely clear; however, the relatively small number of buttons found at Ayers Town is consistent with the generally low button density at Old Town (n=15) and, when compared to a sample of 194 buttons recovered at New Town, suggests that the use of buttons as clothing fasteners was far more common during the first decades of the nineteenth century.

The Ayers Town buttons represent four methods of manufacture: (1) brass disks with soldered alpha shanks (n=7); one-piece buttons of cast pewter with drilled eyes (n=2); two-piece buttons of cast brass or Britannia (tombac) with alpha, omega, or cone-with-wire-eye shanks (n=7); and two-piece hollow buttons of brass, hard white pewter, or copper with drilled eye or



Figure 6.4. Buttons from Ayers Town: two-piece cast Britannia (a-c, e); two-piece cast brass (d); brass disk with silver plating (f); brass disk with embossed, silver-plated rattlesnake (g); embossed cast pewter with drilled eye (h-i); two-piece hollow button face (j); brass disk with preserved cotton thread (k); and cufflink buttons (l-o).



Figure 6.5. Close-up of decorated buttons from Ayers Town.

indeterminate shanks (n=5). They range from 11.1 mm to 25.3 mm in diameter, most are plain, and none have stamped backmarks. Six of the seven brass disk buttons are plain, with two having silver-plated faces and one exhibiting traces of gilt on the back surface. The remaining brass disk button also is silver-plated and has an embossed rattlesnake on the face (Figures 6.4g and 6.5a). The snake, coiled and possessing 13 rattles, was a powerful symbol of American patriotism during the American Revolution and its aftermath. Of the remaining buttons, each of the one-piece cast buttons has an embossed floral motif on the face (Figure 6.5b–c). Conversely, none of the two-piece cast buttons have decorated faces, and only one of the two-piece hollow buttons is decorated. It has two engraved lines along the perimeter and two nested circles at the center (Figure 6.5d).

Two of the cufflink buttons are oval, made of silver, and have soldered silver shanks (Figure 6.5f–g). One has a stamped floral motif; the other has a finely engraved diamond motif formed by parallel, concave lines and contained within an engraved oval. A third cufflink button is a one-piece, cast octagonal button with a floral motif on its face (Figure 6.5e). The cufflink pair consists of plain, oval buttons joined by a wire loop (Figure 6.4m). Both the buttons and the link are gilted and, although the button faces are extensively worn, one exhibits the faint impression of a lightly engraved floral motif.

Five glass set stones from two-piece buttons were recovered. Two of these are oval in shape, made of flat turquoise and clear glass, and likely represent cufflink button faces (Figure 6.5h). The remaining three are circular and 10–11 mm in diameter. One is clear with facets, one is brite navy with facets (Figure 6.5i), and one is clear with a convex surface.

Finally, a small, thin disk measuring 19 mm in diameter and made of tin or a copper alloy, was recovered from Feature 33. It appears to be a component of a two-piece button.

MATERIAL CULTURE

Glass Beads

A total of 1,494 glass beads and one jet bead representing 48 separate types were recovered during excavations at Ayers Town (Table 6.5, Figure 6.6). All but seven of these came from waterscreened or flotation-processed feature fill, and most came from sub-floor storage facilities. Fourteen features classified as storage pits (Features 3, 4, 5, 33, 69, 106, 107, 108, 116, 123, 155, 162, 163, and 170) and one classified as a rectangular cellar (Feature 55) produced 1,399 beads, while 19 other features contained a total of only 89 beads.

Beads were classified by form, size, color, and diaphaneity using categories proposed by Kidd and Kidd (1970). In order to understand the significance of the Ayers Town bead assemblage as it relates to changing Catawba practices of adornment during the eighteenth and early nineteenth centuries, beads from four other Catawba sites also were analyzed in a similar manner, providing a 70-year perspective on Catawba bead use. This analysis included assemblages from: Nassaw-Weyapee (n=17,883 beads) and Charraw Town (n=7,156 beads), both occupied c. 1750–1760; Old Town (n=2,122 beads), partly contemporary with Ayers Town and occupied during the 1760s–1790s; and New Town (n=497 beads), occupied from the 1790s until about 1820 (Duffield and Davis 2011).

Following classification of beads from all sites, the relative frequency of bead types was calculated for each site, and the percentage differences in bead type, bead size, and bead color were compared. The density of beads at each site also was compared by examining the quantities of beads found in measured flotation heavy fractions from archaeological feature contexts (excluding smudge pits).

The goals of this analysis were: (1) to examine changes in bead size that might indicate a shift in how beads were used (e.g., small beads reflecting the use of embroidered beadwork to decorate garments and other personal items, and large beads likely reflecting the use of beads in jewelry such as necklaces); (2) to examine changes in color that might indicate shifts in the composition of embroidered beadwork or jewelry; and (3) to use bead density as a measure to evaluate overall shifts in the popularity of beads for clothing decoration and personal adornment. Chronological changes in these three variables (i.e., size, color, and density) are shown in Figures 6.7, 6.8, and 6.9.

The most striking chronological pattern is the dramatic decline in bead density following the abandonment of Nassaw-Weyapee and Charraw Town. Whereas glass beads were ubiquitous in all excavated contexts at these two sites, most contexts at later sites yielded only modest samples of beads and several contexts did not yield beads. This suggests a fundamental shift in how glass beads were used by Catawbas.

Insight into the nature of this shift can be gained by examining corresponding changes in bead size and color over time. Despite the precipitous decline in bead density, small glass "seed" beads continue to dominate bead assemblages into the 1790s, including the assemblage from Ayers Town. These small beads are thought to reflect a continuation of the practice, common since the mid-17th century, where clothing often was elaborately decorated with beaded embroidery. Although one third of the Ayers Town bead types (i.e., those classified as large or extra large) probably represent necklace rather than embroidery beads, they comprise only 5.2% (n=78) of the total bead assemblage. The decline in overall bead density may indicate a shift during this period from designs involving patterns within large, beaded panels to designs sewn



Figure 6.6. Glass bead types from Ayers Town.

Image	Kidd & Kidd Type	Ν	%	Form	Size	Color	Diaphaneity
1	Ia	36	2.41	simple tube	small	black	translucent
2	Ia	14	0.94	simple tube	medium-large	dark palm green	opaque
3	Ia	16	1.07	simple tube	small	pale blue	opaque
4	Ia5	6	0.40	two-layered tube	small	white (clear coating)	opaque
5	Ia5	2	0.13	two-layered tube	medium-large	white (clear coating)	opaque
6	Ia15	11	0.74	simple tube	medium-large	dark blue	translucent
7	Ia16	11	0.74	simple tube	medium-large	dark navy	opaque
8	Ia18	5	0.33	simple tube	small-medium	dark navy	translucent
9	Ia21	6	0.40	simple tube	small	ruby	translucent
10	Ib5	12	0.80	striped tube	large	dark blue (red & white stripes)	opaque
11	Ib11	1	0.07	striped tube	large	white (red stripes)	opaque
12	Ic4	10	0.67	simple tube, faceted	small	black	opaque
13	Ic8	3	0.20	simple tube, faceted	medium	amber	clear
14	If	93	6.22	simple tube, faceted (8 sides & ends)	small	rose wine	translucent
15	IIa	5	0.33	simple tube, rounded	small	apple green	translucent
16	IIa	34	2.27	simple tube, rounded	small	black	opaque
17	IIa	4	0.27	simple tube, rounded (oval)	small	brite copen blue	opaque
18	IIa	1	0.07	simple tube, rounded	medium	dark brown	translucent
19	IIa	17	1.14	simple tube, rounded	small	dark navy	translucent
20	IIa	1	0.07	simple tube, rounded	small	pale blue	opaque
21	IIa	3	0.20	simple tube, rounded (oval)	small	surf green	opaque
22	IIa	3	0.20	simple tube, rounded	small-medium	surf green	translucent
23	IIa5	214	14.31	simple tube, rounded	very small-small	ruby	translucent
24	IIa8	1	0.07	simple tube, rounded (oval)	small	black	opaque
25	IIa9	13	0.87	simple tube, rounded	small	light gray	clear
26	IIa11	4	0.27	simple tube, rounded	small	white	opaque
27	IIa13	830	55.52	simple tube, rounded	very small-small	white	opaque
28	IIa13	11	0.74	simple tube, rounded	medium-large	white	opaque
29	IIa13	2	0.13	simple tube, oval	large	white	opaque
30	IIa15	7	0.47	simple tube, rounded (oval)	small-medium	white	opaque
31	IIa27	6	0.40	simple tube, rounded	small	emerald green	translucent
32	IIa28	10	0.67	simple tube, rounded	medium	dark palm green	translucent
33	IIa60	1	0.07	simple tube, rounded (oval)	small-medium	rose wine	opaque
34	IIb12	1	0.07	striped tube, rounded	medium	black (white stripes)	opaque
35	IIg	1	0.07	simple tube, rounded (oval)	medium	white (green design)	opaque
36	IIIa	2	0.13	multi-layered tube	large	dark navy (white stripes)	opaque
37	IIIa1	1	0.07	two-layered tube	small	redwood over light gray	opaque

Table 6.5. Summary of Glass Beads from Ayers Town.

Table 6.5	5 Continued.
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Image	Kidd & Kidd Type	N	%	Form	Size	Color	Diaphaneity
38	IVa1	77	5.15	two-layered tube, rounded	small-medium	redwood over light gray	opaque
39	WIb	3	0.20	wire wound, rounded	small	black	opaque
40	WIb	3	0.20	wire wound, rounded	medium	clear	translucent
41	WIb2	2	0.13	wire wound, rounded	medium	white	translucent
42	IIa25	2	0.13	simple tube, rounded (oval)	large	surf green	opaque
43	WIb	2	0.13	wire wound, rounded	large	black	translucent
44	WIb5	3	0.20	wire wound, rounded	large	light gray	translucent
45	WIb9	1	0.07	wire wound, rounded	medium-large	dark palm green	translucent
46	WIb14	1	0.07	wire wound, rounded	very large	brite Dutch blue	opaque
47	WId	2	0.13	wire wound, donut	large	brite navy	translucent
48	Jet bead	1	0.07	rectangular	large	black	opaque
Total		1,495	100.00				

Note: Kidd and Kidd Type descriptions can be found in Kidd and Kidd (1970).



Figure 6.7. Average bead density by chronological period.



Figure 6.8. Frequency distribution of glass beads by size and sites.



Figure 6.9. Frequency distribution of glass beads by color and sites.

onto garments without a beaded background. The significantly greater numbers of mediumsized, large, and very large beads at New Town, many of which are faceted, can be attributed to a shift toward the use of glass beads in jewelry such as necklaces.

While variation in bead color is more difficult to interpret and likely involves cultural norms regarding color significance, as well as other possible factors, the predominance of small white beads prior to the 1790s can be attributed to embroidery designs of predominantly black (pre-1760) and red/brown (1760s–1790s) beads being applied to a white background. The greater diversity in bead color at New Town is seen as supporting the argument that Catawbas in the

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post-1790s era used glass beads in ways that were fundamentally different from their predecessors.

Shoe Buckle

One fragment of a cast pewter shoe buckle frame, decorated with rectangular perforations, was recovered from Feature 123. Brass shoe buckles also have been recovered from Old Town. Noel Hume (1970:86) notes that shoe buckles were in use in America between about 1700 and 1815, with the most expensive ones cast from silver or brass and occasionally jeweled. The least expensive buckles were made of iron or cast pewter, such as the one found at Ayers Town.

Catawba-Made Coarse Earthenware Ceramics

Artifacts associated with food preparation and consumption comprise the majority (87.7%) of all archaeological materials recovered at Ayers Town. Of these, most are fragments or sections of Catawba-made, coarse earthenware vessels and include 17,134 potsherds weighing a total of 53.1 kg. Potsherds were ubiquitous in all excavated contexts except smudge pits, which seldom contained artifacts. While more than half of the sample (n=8,789, or 51.3%) came from unit excavations, these potsherds usually were small and heavily eroded, and therefore were of limited value to understanding the overall vessel assemblage at the site. Over 75% were less than 2 cm in diameter and only one potsherd was greater than 6 cm in diameter. Conversely, the 7,976 pottery fragments recovered from feature contexts were often much larger and better preserved, and many re-fit to form vessel sections and complete or nearly complete vessels. Sixty rim sherds, vessel sections, and reconstructed vessels, all from feature contexts, were sufficiently large or complete enough to obtain specific information about vessel size and shape. These "numbered" vessels form the basis for characterizing the Ayers Town vessel assemblage and are illustrated and described individually in Appendix B.

One of the more significant findings of archaeological research at historic Catawba sites over the past decade has been the demonstration of an abrupt and rapid change in Catawba ceramic technology coinciding with the devastating 1759 smallpox epidemic and the Catawbas' subsequent abandonment of the Nation Ford area (Riggs 2010). As documented at the 1750s sites of Nassaw-Weyapee and Charraw Town, Catawba ceramics during this period show strong technological and stylistic continuity with the South Appalachian Mississippian Lamar tradition. This tradition is manifested within the Catawba valley during the late pre-contact and early contact periods as the Cowans Ford ceramic series (dominated by thickened-rim jars with curvilinear complicated-stamped exteriors and cazuela or carinated bowls with incised decorations) and is represented at the Hardins and Belk Farm sites, respectively (Riggs 2010:31-34; also see Keel 1990 and Moore 2002). Following the abandonment of Nation Ford in late 1759-early 1760 and temporary resettlement downriver at Pine Tree Hill (now Camden), surviving Catawba potters began the exclusive production of plainwares, and traditional Mississippian vessel forms were replaced with forms (e.g., plates, teacups, saucers, bowls, and pans) that would have been commonplace among the Euroamerican settlers in the Carolina backcountry. Ceramics of this new tradition, identified typologically as River Burnished by Ferguson (1990) and others, and generally regarded as "colonoware" when found in Euroamerican contexts outside the Catawba valley, comprise the entire Catawba-made vessel

assemblages at Ayers Town as well as Old Town, New Town, and the Bowers site, and they occur at these late eighteenth–early nineteenth-century Catawba sites in the absence of ceramics suggestive of the earlier Cowans Ford series (see Riggs 2010 for a more thorough discussion of this transformation).

Catawba pottery-making survives today as an important art form and is tied through an unbroken tradition to the earlier Ayers Town potters, as well as those residing at other contemporary settlements. As practitioners of the oldest surviving pottery-making tradition in the eastern United States, Catawba potters were studied by ethnographers on three separate occasions between 1884 and 1908 (Harrington 1908; Holmes 1903), and a fourth study was conducted in 1940 (Fewkes 1944). In 1884 Edward Palmer, an employee of the Smithsonian Institution's Bureau of Ethnology, recorded general observations about Catawba pottery-making on their reservation in South Carolina, and in 1890 James Mooney, another Smithsonian ethnographer, recorded the work of two Catawba potters-Sally Wahuhu and Susanna Owlwho were living among the Cherokee in western North Carolina (Holmes 1903:53-55). Sally Wahuhu, who Mooney described as being 80 years old and having left the Catawba reservation about 1840, would have been born about a decade after Ayers Town was abandoned. In the early twentieth century, Mark Harrington (1908) recorded Catawba pottery-making as practiced by Rachel Brown, her husband John Brown, and their eldest daughter while on an expedition to collect ethnographic specimens for George G. Heye. These ethnographies have direct relevance to understanding how the wares at Ayers Town were produced, even though the Catawba potters being studied were no longer making many utilitarian wares for their own use. As Harrington (1908:401-402) observed:

That the Catawba now use but little of their own pottery became clear when I inquired for old vessels that had seen actual service. A few such, and a few only, were obtained, comprising cooking pots $(t\hat{u}syam\hat{u}s\bar{e})$ with and without legs, bowls $(t\hat{u}su\bar{i}')$, and jars $(\check{t}t\hat{u}sk\bar{i})$ for keeping milk and other liquids, all more or less of old types, but differing from most prehistoric forms in having flat instead of rounded bottoms.

According to both Mooney and Harrington, the paste used by Catawba potters was a mixture of two kinds of clay: "a fine-grained stiff variety called "pipe clay" (*wĭmĭsûīnto*), and a coarse, lighter, crumbly kind known as "pan clay" (*īntoītûs*) (Harrington 1908:402). Mooney noted further that the second type of clay "contains sand so coarse as to give it a gritty texture" (Holmes 1903:53). Except for the firing process, the descriptions given by Palmer, Mooney, and Harrington for how a pottery vessel was built are remarkably similar. Mooney described the process as follows:

In making a vessel a sufficient quantity of the paste was placed by the Catawba women on a board and rolled into cylinders about an inch thick, which were cut up into sections eight or ten inches long. A small mass of clay was then taken, from which a disk about five inches in diameter was formed; this, turned up at the edges, served as the bottom of the vessel. It was placed on a board and one of the strips of clay, properly flattened out, was carried around its circumference and broken off on completing the circuit. The margin was bent slightly upward and the junction was rubbed over with the thumb nail to unite it. The process was repeated until the bowl was complete, the last strip being turned slightly outward with the fingers to form the rim. The joints were then rubbed over with the nails, and the whole surface, inside and out, was rubbed with a piece of gourd shell until it became quite even. During the smoothing process the vessel was beaten with the hands and dexterously turned by tossing in the air. The work up to this point had occupied about fifteen minutes. In the case of vessels requiring ears or handles, small cylinders of stiff clay were shaped, set in holes bored through the vessel, and clinched inside, and the joints were carefully smoothed over. The vessel was then allowed to dry until the next day. Having remained in the sun for a number of hours it was again placed on a board which was held in the lap and the surface was scraped with a bit of gourd shell until the walls were sufficiently thin and even. Some parts, including the edges, were pared off with a knife. When the scraping or paring dislodged grains of sand, the holes were filled with bits of clay from the bottom of the vessel and the surface was smoothed over with the fingers. The surface was now rubbed over with the gourd shell and polished with a smooth pebble which, in this case, had been brought from South Carolina by the elder woman. This part of the process, occupying about fifteen minutes, finished the second day's work.

After the vessel had dried until the afternoon of the third day, in the sun, as far as possible, the surface was again rubbed inside and out with the polishing stone. This work occupied half an hour. After this the vase was placed before the fire where not exposed to drafts and dried or baked for an hour; it was then ready for firing.... [Holmes 1903:54]

Excluding the time required to dig and prepare the paste mixture, and to dry and fire the final product, the process of building, shaping, thinning, and burnishing a vessel by skilled potters such as Sally Wahuhu and Susanna Owl was remarkably brief—about an hour per pot spread over three days. At this rate, Catawba potters had the capacity to produce large numbers of vessels when needed.

Sally Wahuhu told James Mooney that she did not fire her pots in the traditional Catawba manner, which was to "not burn their wares in the fire, but baked them before it" (Holmes 1903:53). This would appear to be confirmed archaeologically at Ayers Town, Old Town, and New Town, where incompletely fired sherds (i.e., those with fire-hardened exteriors and soft, clayey interiors) are occasionally found that become soft and slowly dissolve when soaked in water. The "indirect" method of firing pottery was demonstrated to Harrington, who gave the following report:

Burning of pottery is now generally done in the house on the hearth of the large open fireplace, to avoid drafts; but some years ago the firing took place out of doors in a gully, or hollow, a still night being usually selected. The Browns arranged an old style out-door burning for my benefit, with the warning that, as a stiff breeze was blowing, some of the pieces might crack.

The first step was to prop the vessels up around the fire, their mouths toward the blaze.... Here they remained for two or three hours, a peculiar black color spreading over them as they grew hotter and hotter. When this color had become uniform — a sign that they were hot enough — John raked the blazing brands out of the fire and inverted the vessels upon the coals and hot ashes...which were then pushed up around them and the whole covered thickly with pieces of dry bark pulled from old pine stumps.... When the bark had burned away, the red-hot vessels were pulled out and allowed to cool slowly around the fire. One had cracked, as predicted, and all the pieces were more or less mottled by drafts. The black color of the first heating, however, had given place to the typical reddish yellow of Catawba pottery. I was informed that when uniform shiny black color is desired, the ware, after the preliminary heating, is imbedded in bits of bark in a larger vessel of clay or iron, which is then inverted upon the glowing coals and covered with bark. After one or two hours the firing is complete and the vessels have acquired a brilliant black color which seems to penetrate their very substance. [Harrington 1908:404–405]

Method of Analysis

Because of the fragile nature of archaeological ceramics, archaeologists usually study potsherd assemblages rather than vessel assemblages. At Ayers Town, no intact vessels were recovered and more than three-fourths of all potsherds were less than 2 cm in diameter. Despite this, the numerous subsurface pits excavated at the site provided protected contexts for deposits of primary refuse, and many such deposits contained large vessel sections and, in some instances, fragments from which complete or nearly complete vessels could be reconstructed. Of the 17,134 potsherds recovered at the site, only 839 could be assigned with confidence to a specific vessel type. Taking into account re-fits and sherds that can be attributed to a single vessel based on distinct or unique stylistic attributes, these sherds represent a maximum of 414 individual vessels (and probably much fewer). Only 60 of these individual vessels were sufficiently complete to ascertain vessel size and overall vessel shape.

Analysis of Catawba-made earthenwares from Ayers Town was performed at two levels. First, all sherds were systematically coded for a series of morphological and stylistic attributes, including: sherd size, sherd thickness, portion of vessel represented, paste characteristics, exterior surface treatment and color, interior surface treatment and color, sherd curvature, rim configuration, lip shape, decoration, and vessel type. Cross-mends were noted, and other observations were recorded about sherd condition and unusual physical characteristics. Second, during the sherd analysis all sherds and re-fitted vessel sections large enough to determine overall vessel size and shape were assigned a unique vessel number and individually described and illustrated (see Appendix B). Attributes recorded for each vessel include: context, vessel type, paste temper, exterior surface treatment and color, interior surface treatment and color, rim and lip form, basal form, decoration, rim diameter, vessel height, and wall thickness. The 60 vessels treated in this manner, all recovered from feature contexts, comprise a representation of the Ayers Town vessel assemblage. Recorded sherd and vessel attributes are considered in greater detail below.

Sherd Size

Sherd size was measured using a template of concentric circles graduated at 2 cm intervals (i.e., 0-2 cm, 2-4 cm, 4-6 cm, 6-8 cm, etc.). The smallest size category was further divided into two categories: 0-1 cm and 1-2 cm. Sherds that were less than 2 cm in diameter were counted but not described in greater detail. Overall, sherds less than 1 cm in diameter comprised about 21% of the sample, sherds from 1-2 cm in diameter comprised 56%, sherds from 2-4 cm comprised 18%, and those larger than 4 cm comprised the remaining 5% (Table 6.6). All but 32 of the 764 sherds larger than 4 cm came from feature contexts.

Sherd size is a useful measure for differentiating between deposits of primary (containing larger sherds) and secondary (containing smaller sherds) refuse disposal. Recording sherd size and estimating vessel exterior surface area for complete and largely complete vessels where overall vessel size and shape can be determined also permits rough estimates to be made about the potential total number of vessels represented by a sherd assemblage at a site.

At Ayers Town, 24 vessels ranging from small cups to large pans were sufficiently complete to calculate both surface area and volume (Tables 6.6 and 6.7, Figure 6.10). If it is assumed that these vessels are representative of the range, composition, and proportion of the overall vessel assemblage (an assumption that cannot be demonstrated), then the average surface area represented by a vessel is about 766 cm² (with a range of 99 cm² for a miniature jar to 3139 cm² for a large pan). An estimate of the total vessel surface area represented by sherds at the site can be derived by adding the ceramics recovered from features (47,345 cm²), which includes all excavated features except graves and one feature intruded by a grave) to the estimated total number of sherds contained within the plowed soil (457,020 cm²) projected from the 5% sample of 111 excavated 1x1-meter units). This gives a total estimated vessel surface area of 504,365

	Sherd Counts					Estimated Total Vessel Surface Area			
	Excav.	Fea-				Est. Per Sherd	Excav.		
Size	Units	tures	Other	Total	%	Surface Area	Units	Features	Total
<1 cm	1,610	1,945	9	3,564	20.80	0.53	859.85	1,038.77	1,903.43
1–2 cm	5,876	3,586	179	9,641	56.27	1.96	11,537.50	7,041.09	18,930.06
2–4 cm	1,287	1,713	165	3,165	18.47	7.85	10,108.07	13,453.87	24,857.85
4–6 cm	15	460	15	490	2.86	20.42	306.31	9,393.36	10,005.97
6–8 cm	1	158	1	160	0.93	39.27	39.27	6,204.65	6,283.19
8–10 cm	0	68	0	68	0.40	64.40	0.00	4,379.38	4,379.38
10–12 cm	0	24	0	24	0.14	95.82	0.00	2,299.65	2,299.65
12–14 cm	0	12	0	12	0.07	133.52	0.00	1,602.21	1,602.21
14–16 cm	0	8	0	8	0.05	177.50	0.00	1,420.00	1,420.00
16–18 cm	0	1	0	1	0.01	227.77	0.00	227.77	227.77
18–20 cm	0	1	0	1	0.01	284.31	0.00	284.31	284.31
Total	8,789	7,976	369	17,134	100.00		22,851.00	47,345.06	72,193.81

Table 6.6. Distribution of Sherds by Size and General Excavation Contexts with Estimates of Total Vessel Surface Area Represented.

Surface area measurements are in square centimeters.

Table 6.7. Rim Diameter, Height, Surface Area, and Volume for 24 Vessels Recovered from Ayers Town.

Vessel	Vessel Type	Rim Diameter (cm)	Vessel Height (cm)	Surface Area (cm ²)	Volume (liters)	Volume (quarts)
1	cup (footed)	9.5	6.0	221.3	0.2	0.2
2	bowl (footed)	12.5	5.5	328.2	0.5	0.5
3	cup	9.0	3.5	164.9	0.2	0.2
4	cup	9.5	4.0	170.2	0.1	0.1
5	bowl	23.0	7.0	786.8	2.1	2.2
6	plate	24.0	3.5	566.8	0.8	0.9
8	bowl	19.0	6.0	457.0	0.9	1.0
11	bowl	13.0	5.5	238.9	0.3	0.3
12	plate	28.0	5.0	799.9	1.8	1.9
23	jar (miniature)	4.5	5.5	99.4	0.1	0.1
25	bowl (footed)	11.5	4.5	212.7	0.2	0.2
27	pan	33.0	11.0	1,395.5	5.5	5.8
33	pan	41.0	13.5	2,049.6	9.8	10.3
36	pan	31.0	10.8	1,192.2	4.1	4.3
39	bowl	15.5	7.0	457.5	0.9	1.0
40	pan	32.0	13.0	1,562.4	7.3	7.7
41	pan	34.0	12.0	1,426.4	5.6	6.0
42	bowl	22.5	6.5	598.5	1.4	1.4
47	jar	13.0	17.5	936.8	2.1	2.3
48	bowl	16.0	5.5	356.8	0.7	0.7
49	bowl	22.0	8.0	675.1	1.8	1.9
50	bowl	18.0	6.5	416.2	0.8	0.9
51	pan	4.05	21.0	3,139.0	19.2	20.2
52	cup (cylindrical)	6.5	6.5	145.9	0.1	0.1



Figure 6.10. Vessel forms represented in the Catawba coarse earthenware assemblage at Ayers Town. A possible pitcher or teapot form, represented by Vessel 60, is not sufficiently complete to render an overall vessel profile.

 cm^2 and, when divided by the average vessel surface area (766 cm^2), indicates an estimate of 658 vessels for the site, or an average of about 130 vessels for each of the five residential complexes during the site's approximately 20-year occupation. While this approach obviously rests upon several unsubstantiated assumptions, it is useful in indicating the general scale of the Ayers Town vessel assemblage.

CHAPTER 6

Sherd Thickness

The vessel wall thickness represented by sherds greater than 2 cm in diameter was measured to the nearest millimeter. The 3,940 measured sherds ranged from 2 mm to 14 mm in thickness with 94% being normally distributed between 4 mm and 8 mm thick (\bar{x} =6.3, s.d.=1.3). Inspection of large sherds and vessel sections indicates that most vessel walls maintained a uniform thickness (see Figure 6.10 and profiles drawings in Appendix B). An analysis of 53 vessel sections for which rim diameter could be determined shows that larger vessels tend to have slightly thicker walls; however, the strength of this correlation is not high (i.e., Pearson's r=0.47).

Portion of Vessel Represented

Most potsherds greater than 2 cm in diameter (n=4,028) were classified by portion of vessel represented. Recognized vessel portion classes are defined as follows: *rim* (sherd with vessel lip) (n=778, 19.3%); *neck* (sherd with concave exterior surface but no evidence of vessel lip; associated almost exclusively with jars) (n=114, 2.8%); *body* (sherd with convex surface but no evidence of vessel lip or basal edge) (n=2,374, 58.9%); *base-body juncture* (sherd with evidence of the juncture between vessel body and base; 217 exhibit a simple, obtuse-angled juncture from a curved vessel wall to a flat base, and one has a right-angled juncture) (n=218, 5.4%); *base* (pot base fragment characterized by lack of curvature) (n=483, 12.0%); *base with foot ring* (pot base fragment so f curved, cylindrical loop handles, and two are disk-like pot lid handles) (n=25, 0.6%); *handle attachment* (body, neck, or rim sherd with evidence of a riveted handle attachment) (n=3, 0.1%); and *pode* (a cylindrical pot leg) (n=2, 0.1%). Specific types of rim configuration and lip treatment are considered in greater detail below.

A total of 13,100 small (i.e., less than 2 cm diameter), heavily eroded, or fragmented sherds were classified as *indeterminate*.

Temper

In his description of Catawba clay mining and paste preparation, Harrington (1908:402–403) noted that potters were careful to remove all "foreign substances" from the clay as it was being dug up and that no aplastic material, or temper, was added as the paste was being prepared from a mixture of fine-grained pipe clay and coarser-grained pan clay. The fact that many of the Ayers Town potsherds contain sand of varying particle sizes and occasional small rock fragments (mostly quartz) suggests that, while temper may not have been intentionally added to clay, the natural occurrence of sand or grit in pan clays served to "temper" the clay. As Mooney noted, the pan clay used by Sally Wahuhu and Susanna Owl "contains sand so coarse as to give it a gritty texture" (Holmes 1903:53). Figure 6.11 illustrates some of the variation observed in ceramic pastes at Ayers Town.

During analysis, observations were systematically recorded for paste texture, the occurrence of aplastic inclusions, and overall paste color. Of the 3,993 sherds greater than 2 cm in diameter that were coded for texture, about 10% (n=384) were rough to the touch and had a gritty texture.



Figure 6.11. Edges of five sherds from Feature 3 showing variation in ceramic paste: paste containing little or no inclusions (a-c); paste with a large quartz inclusion (c); and paste with coarse sand inclusions (d).

This tactile characteristic resulted from the inclusion of sand of varying particle size within the paste; however, only 42 of these sherds contained clearly visible grit inclusions. Of the 771 sherds that could be classified by vessel type (primarily rim sherds, basal sherds, and other non-diagnostic sherds that comprise larger, identifiable vessel sections), coarse-textured sherds represent 9.6% of jar fragments (8 of 83 sherds) and 7.2% of pan fragments (16 of 221 sherds). These two vessel classes represent the primary utilitarian (i.e., cooking and storage) wares at the site. Conversely, coarse-textured sherds represent only 1.9% (9 of 467 sherds) of all other vessel categories, including tablewares such as bowls, cups, and plates. The great majority (90%) of all sherds from Ayers Town, and for all vessel classes, have a fine texture (i.e., they are smooth to the touch) and contain either fine sand or very fine sand. The 52 fine-textured sherds that contained visible aplastic inclusions represent only 1.4% of all fine-textured sherds. The paste difference between wares with a coarse texture and those with a fine texture can likely be attributed to different proportions of pipe clay and pan clay mixed together to form the potter's paste.

Finally, while most sherds exhibited paste colors that ranged from reddish brown to light yellowish brown, 99 sherds were identified that were light gray to very pale brown in color. These include Vessels 2, 6, and 9, and may represent clay from a separate source. A much greater proportion of sherds from Old Town I contexts at Old Town were made using a similar paste, suggesting that it may be associated largely with Catawba ceramics of the 1760–1780 period. These sherds, when decorated, were painted with a dark brown pigment rather than with red sealing wax. Conversely, sherds with this paste were not observed at the later site of New Town. The 20 "pale-bodied" vessels identified by sherds from Ayers Town (including Vessels
2, 6, and 9) include 13 bowls, two cups, two plates, two jars, and a loop handle from a bowl or cup.

In a recent study, Rosanna Crow (2011) examined the mineral composition of potter's clays and pottery fragments from archaeological contexts at Ayers Town and Old Town and the composition of clays from the Catawbas' modern clay pits at Nisbet Bottoms, located along Catawba River midway between the two sites. Her research questions were to determine if potters from the two late eighteenth-century sites were obtaining their clays from a similar source and, if so, to determine if that source was the same one used by Catawbas today. Using x-ray diffraction to analyze clays and x-ray fluorescence to analyze both clays and pottery fragments, she identified four distinct clay sources and found that two of those sources were likely shared by both Old Town and Ayers Town potters. One of those shared sources may have been Nisbet Bottoms, but it also is possible that it was a different but geologically similar deposit of alluvial clays along Catawba River.

Surface Treatment and Color

Each sherd greater than 2 cm in diameter was classified by exterior surface finish, exterior smudging, and interior smudging. All sherds at Ayers Town, as well as at other Catawba sites known to post-date 1760, have plain exteriors; surface treatments present on earlier Catawba ceramics, such as cord-marking, corncob-impressing, and stamping with a carved paddle, are absent. Instead, the variation in surface treatment relates to the degree to which a vessel's exterior was smoothed and burnished, and this variation bears a general relationship to both a vessel's intended function (i.e., cooking, storage, or serving) and the post-depositional processes affecting the condition of the archaeological specimen. Burnishing is easily recognized on most sherds by the presence of facets produced by rubbing with a burnishing stone and a sherd surface that is extremely smooth or slick to the touch. Because of ambiguity in distinguishing between smoothed, burnished but weathered, and burnished surfaces, sherds with these surfaces were classified simply as *smoothed/burnished*. A few sherds were burnished to such a high degree that a glossy polish was attained; these were classified as *polished*.

Most pots at Ayers Town, as well as at other post-1760 Catawba sites, were smudged. Smudging was sometimes used to produce a uniformly black finish on a vessel; however, it more commonly was used as a way of waterproofing a vessel's interior surface (see discussion of smudge pits in Chapter 5). Among 3,916 sherds with smoothed/burnished exteriors, only 14% were also smudged on the exterior surface; however, 86% of these sherds had smudged interiors. Of the 28 sherds with polished surfaces, 86% had smudged exteriors and 93% had smudged interiors (Table 6.8).

Sherd color was highly variable, and this variation can be attributed to paste type, firing practice (reflected by the presence or absence of fire-clouding), and intentional alteration of the surface through smudging. Dominant surface color was classified using Munsell soil color charts for the 60 numbered vessels and provides an estimate of the range in colors within the overall assemblage. As shown in Table 6.9, these colors range from yellowish red to brown on un-smudged exteriors and dark gray to black on smudged surfaces. See Appendix B for examples of surface treatments, smudging, and paste colors.

Exterior Surface	Exterior Finish	Interior Finish	Total	%
Smoothed/Burnished	Unmodified	Unmodified	529	13.4
Smoothed/Burnished	Unmodified	Smudged	2,825	71.6
Smoothed/Burnished	Smudged	Unmodified	33	0.8
Smoothed/Burnished	Smudged	Smudged	529	13.4
Polished	Unmodified	Unmodified	2	0.1
Polished	Unmodified	Smudged	2	0.1
Polished	Smudged	Smudged	24	0.6
Total	-	-	3,944	100.0

Table 6.8. Distribution of Potsherds by Exterior Surface Treatment, Exterior Finish, and Interior Finish.

Table 6.9. Range of Dominant Exterior Surface Colors on 60 Numbered Catawba Earthenware Vessels at Ayers Town.

Munsell	Description	Total	Munsell	Description	Т	otal
5YR 5/6	yellowish red	2	10YR 5/6	yellowish brown		4
7.5YR 5/4	brown	1	10YR 5/8	yellowish brown		3
7.5YR 5/6	strong brown	2	10YR 6/2	light brownish gray		5
7.5YR 5/8	strong brown	1	10YR 6/3	pale brown		4
7.5YR 6/6	reddish yellow	5	10YR 6/4	light yellowish brown		5
7.5YR 7/6	reddish yellow	1	10YR 6/6	brownish yellow		4
10YR 2/1	black (smudged)	1	10YR 7/1	light gray		1
10YR 3/1	very dark gray (smudged)	1	10YR 7/2	light gray		2
10YR 4/1	dark gray (smudged)	1	10YR 7/3	very pale brown		5
10YR 5/2	grayish brown	3	10YR 7/4	very pale brown		3
10YR 5/3	brown	1	10YR 7/6	yellow		1
10YR 5/4	yellowish brown	3	10YR 8/3	very pale brown		1
	-				Total	60

Sherd Curvature

Given that the ceramic assemblage at Ayers Town appears to be comprised almost exclusively of vessels that had flat bases, coding for sherd curvature is a useful way to differentiate between body (curved) and basal (flat) sherds in the absence of other diagnostic features. Of the 3,988 sherds sufficiently large enough to determine curvature, 86% were curved and 14% were flat.

Vessel Rim and Lip Configuration

The 776 rim sherds in the sample were classified by rim configuration and lip shape. Rim configuration refers to the overall vessel profile below the lip, while lip shape refers to the form or treatment of the lip edge. Rim classes include: excurvate (21.0%), straight (44.3%), incurvate (28.7%), incurvate with straight vertical rim (0.4%), and indeterminate (5.5%) (Figure 6.12). Excurvate rims are largely associated with jars, bowls, and plates; straight and incurvate rims



Figure 6.12. Rim forms represented in the Ayers Town ceramic assemblage.

occur mostly on pans, bowls, and cups. The three sherds classified as *incurvate with straight vertical rim* are from two restricted-mouth jars (Vessels 16 and 29).

Vessel lip classes include: rounded (28.5%), flattened (28.0%), tapered (1.4%), folded or thickened (9.0%), faceted interior (11.9%), beveled interior (15.1%), beveled interior with edge facets (0.5%), faceted edge (1.0%), and indeterminate (4.6%) (Figure 6.13). Most *jars* have folded or thickened lips; however, more than 20% have simple flattened or rounded lips. Lip thickening is a vessel characteristic that is reminiscent of earlier Catawba-made jars which have pronounced, notched or punctated rim strips. Rim strips strengthened the rim of a vessel, and their use at Ayers Town undoubtedly served a similar function. With the exception of a single vessel (Vessel 59) with incisions along the rim fold and a sherd with punctations along the lower



Figure 6.13. Examples of vessel lip classes represented in the Ayers Town ceramic assemblage.

edge of the rim fold, all rim sherds from Ayers Town with folded or thickened lips are undecorated. The practice of adding a strip of clay to the outer rim of jars continues at New Town; however, those rim strips, or collars, are barely detectable except for the presence of a low ridge at the bottom edge of the thickened rim (see Riggs et al. 2006:72–73). *Pans* largely have simple flattened or simple rounded lips; the six pan rim sherds with a folded or thickened lip are all from the same vessel (Vessel 51). This treatment apparently was necessary to reinforce the rim of this very large pan. *Bowls* are evenly divided between those with simple rounded or flattened lips (n=79, 30.2%), lips with faceted interiors (n=89, 34.0%), and lips with a beveled interior (n=87, 33.2%). Five bowls with beveled interior lips also have a faceted, or

CHAPTER 6

Rim Attribute	Jar	Pan	Bowl	Cup	Plate	Bottle	Indet.	Total	%
Rim Configuration									
Excurvate	66	1	48	1	12	-	35	163	21.0
Straight	7	103	134	5	-	-	95	344	44.3
Incurvate	1	32	77	11	-	1	101	223	28.7
Incurvate (with vertical rim)	3	-	-	-	-	-	-	3	0.4
Indeterminate	-	-	3	-	-	-	40	43	5.6
Total	77	136	262	17	12	1	271	776	100.0
Lip Shape									
Simple Rounded	6	28	49	7	2	1	128	221	28.5
Simple Flattened	11	104	30	7	2	-	63	217	28.0
Simple Tapered	1	1	2	1	-	-	6	11	1.4
Folded or Thickened	59	2	3	1	-	-	5	70	9.0
Faceted Interior	-	-	89	-	-	-	3	92	11.9
Beveled Interior	-	-	83	1	-	-	33	117	15.1
Beveled Interior with Edge Facets	-	-	4	-	-	-	-	4	0.5
Faceted Edge	-	-	-	-	8	-	-	8	1.0
Indeterminate	-	1	2	-	-	-	33	36	4.6
Total	77	136	262	17	12	1	271	776	100.0
Percent	9.9	17.5	33.8	2.2	1.6	0.1	34.9	100.0	

Table 6.10. Distribution of Rim Sherds by Rim Configuration, Lip Shape, and Vessel Class.

scalloped, lip edge. Fourteen of the 17 *cups* have simple rounded or flattened lips, while all of the dozen *plates* also have simple rounded or flattened lips. Eight plates also have faceted, or scalloped, lip edges. Finally, the one possible *bottle* rim sherd in the sample has a simple rounded lip. The distribution of rim sherds by rim configuration, lip shape, and vessel class is presented in Table 6.10. Rim sherds exhibiting similar configurations and lip shapes also have been recovered from contexts dating between 1760 and 1820 at Old Town and New Town (Plane 2011; Riggs et al. 2006).

Decoration

Catawba-made vessels from sites dating between 1760 and 1820 usually were not modified beyond simple stylistic treatments to the vessel lip, such as faceting or beveling; sherds from vessels with additional decorative treatment do not exceed 8% of an assemblage. Table 6.11 situates the Ayers Town ceramic assemblage among the other excavated assemblages from Catawba sites within this time period with respect to kinds and frequency of decorative treatment. With the exception of Old Town I (c. 1761–1780) contexts at Old Town, where decorations using a dark brown or black pigment are much more common, most decorations represented in these assemblages consist overwhelmingly of painted designs or rim treatments using a red pigment. And, there is both a general decline over time in the decoration of Catawba earthenware vessels and an increasing restriction of decoration to the vessel lip.

	Rir	n Sherds	Non-Rii	n Sherds	Total		
Site / Decoration Types	Ν	%	Ν	%	Ν	%	
Old Town I (c. 1761–1780)							
Decorated Sherds	38	16.4	45	5.2	83	7.6	
Undecorated Sherds	194	83.6	814	94.8	1008	92.4	
Total	232	100.0	859	100.0	1091	100.0	
Decoration Types							
Painted (red)	20	52.6	12	26.7	32	38.6	
Painted (black/brown)	18	47.4	33	73.3	51	61.4	
Total	38	100.0	45	100.0	83	100.0	
Old Town II (c. 1781–1800)							
Decorated Sherds	20	10.5	3	0.4	23	2.3	
Undecorated Sherds	171	89.5	828	99.6	999	97.7	
Total	191	100.0	831	100.0	1,022	100.0	
Decoration Types							
Painted (red)	18	90.0	2	66.7	20	87.0	
Painted (black/brown)	2	10.0	1	33.3	3	13.0	
Total	20	100.0	3	100.0	23	100.0	
Ayers Town (c. 1781–1800)							
Decorated Sherds	53	6.8	8	0.2	61	1.5	
Undecorated Sherds	725	93.2	3242	99.8	3967	98.5	
Total	778	100.0	3250	100.0	4028	100.0	
Decoration Types							
Painted (red)	41	77.4	8	100.0	49	80.3	
Painted (black/brown)	6	11.3	-	-	6	9.8	
Incised	1	1.9	-	-	1	1.6	
Punctated	5	9.4	-	-	5	8.2	
Total	53	100.0	8	100.0	61	100.0	
New Town (c. 1790–1820)							
Decorated Sherds	238	7.5	46	0.2	284	1.3	
Undecorated Sherds	2,919	92.5	19,290	99.8	22,209	98.7	
Total	3,157	100.0	19,336	100.0	22,493	100.0	

Table 6.11. Comparison of Kinds and Frequency of Decorative Treatments on Catawba Earthenware Sherds (>2 cm in diameter) from Ayers Town, Old Town, and New Town.¹

¹Twenty-three decorated sherds from Ayers Town that are less than 2 cm in diameter have been excluded from this table.

97.5

2.5

0.0

100.0

232

238

6

_

78.3

19.6

2.2

100.0

36

9

1

46

268

15

1

284

94.4

5.3

0.4

100.0

Decoration Types Painted (red)

Incised

Total

Painted (black/brown)

Only 84 sherds from Ayers Town (i.e., 0.5% of all sherds or 1.5% of all sherds greater than 2 cm in size) were decorated. These sherds represent a maximum of 39 vessels and were decorated by painting (n=62), applying a reddish brown slip to the interior vessel surface (n=11), incising (n=4), or punctuating (n=7). Painted vessels were decorated using two types of pigment, and on most sherds from these vessels only traces of the original decoration remain. The most common decorative treatment used at Ayers Town and other post-1760s Catawba sites involved brite red sealing wax, which was heated and applied to the vessel rim and occasionally to the vessel's interior surface (Figure 6.14). This treatment usually is associated with vessels having smudged interiors. Fifty-five sherds representing a maximum of 25 vessels (all bowls) were decorated in this manner. Of these, 26 are rim sherds that exhibited painted dashes along the simple lip edge (n=1), on lip facets (n=20), or along the rim bevel (n=7). Eleven other rim and body sherds exhibited painted dots along the rim bevel (n=9) or interior vessel surface (n=2). Finally, 11 rim sherds and five body sherds exhibited unidentifiable traces of red paint along the lip edge, rim bevel, or interior vessel surface. Faint traces of painted red slip also were observed on the interior surfaces of seven bowl fragments.

Seven sherds representing a maximum of six vessels (bowls and plates) were decorated with a dark brown or black paint, ink, or dye (Figure 6.15). Sherds decorated in this manner comprised almost half of all painted sherds from pre-1780 contexts at Old Town, but they rarely occur in later Catawba contexts. Five of these are rim sherds with faint lines or swags on the interior rim surface; the other two are rim sherds with painted dots on the surface of the rim bevel. Decorations of this type using dark brown and black pigments are thought to have been inspired by those commonly found on English slipwares during the mid-eighteenth century and usually are found on un-smudged vessels with a light gray to very pale brown paste. Four other sherds exhibit a reddish orange slip that was applied to the vessel interior; however, they are too small to determine vessel type.

The three incised sherds are from a single jar (Vessel 59) and represent a folded rim with an incised zigzag line along the rim exterior. Another rim sherd is from a small jar with a folded rim and short incisions along the top and bottom edges of the fold. Six of the seven punctated sherds are from a single bowl (Vessel 18) that was decorated along its beveled rim with a series of punctated arcs. Both vessel decorations are unique within excavated Catawba ceramic assemblages. The other punctated sherd is from the rim of a jar that has a rim fold with irregular punctations along lower edge of the fold. This type of rim treatment is similar to the predominant rim form seen on jars at Nassaw-Weyapee and Charraw Town; however, it too is unique within the excavated ceramic assemblages from Ayers Town, Old Town, and New Town.

Appendages

Twenty-seven fragments of vessel appendages were recovered. Twenty-three of these were pieces of rounded-loop or flattened-loop handles that would have been riveted to the pot exterior and represent a maximum of 15 different handles. While no vessel fragments were recovered with attached handles, one jar rim (Vessel 44) was found that exhibited a scar where a handle had been attached (Figure 6.16k). Interestingly, no vessel fragments with attached handles have been found at any of the sites excavated by UNC's Catawba Project. It is likely that the 14 handle fragments with buff, un-smudged exteriors are from jars; the nine other handle fragments have smudged and polished exteriors, and these may be associated with pitchers or teapots.



Figure 6.14. Examples of bowl rims from Ayers Town decorated with red dashes (c, h) and dots (a–b, d–g).



Figure 6.15. Potsherds from Ayers Town decorated with: dark brown or black dots (a, d, f) and lines (b–c), red dots and line (e), punctations (g, j), incisions (h–i), and reddish orange slip on the interior surface (k).

Eight of these polished handle fragments came from a single feature (Feature 155) (Figure 6.16e–f), while fragments of a polished vessel (Vessel 60) thought to represent the base of a pitcher or teapot were recovered from an adjacent context, Feature 163. Both features are interpreted as sub-floor storage pits within the same structure (i.e., Structure Locality 11 within Residential Complex E).

Two lid handles were recovered from Features 5 and 185 (Figure 6.16h–i). The specimen from Feature 5 has a black, polished exterior and may be from a teapot; the other has a buff exterior, was crudely made, and may be from a bowl or jar lid. No other sherds were found that could be clearly identified as representing lids.

Finally, two podes, or pot legs, were recovered from Feature 190 and from plowed soil overlying Feature 72. The specimen from Feature 190 is large (i.e., 37 cm in diameter) compared to other podes recovered at Old Town and New Town, and it likely supported a large jar (Figure 6.16j). The other specimen is a heavily eroded fragment. Similar loop handles, lid handles, and podes have also been recovered at Old Town and New Town, and both loop handles and podes also have been found at Nassaw-Weyapee.



Figure 6.16. Vessel appendages from Ayers Town: loop handles (a–g), lid handles (h–i), pode (j), and loop handle attachment on jar rim (k).

Vessel Types

Five primary vessel types are represented at Ayers Town: jars, pans, bowls, cups, and plates. Other types represented by sherds in the sample include: a crudely made bottle spout, a possible pitcher or teapot base, a perforated base from a footed colander, and two vessel lid handles. Each of these types is defined by a unique combination of morphological and stylistic attributes.

Vessel Type	Rim	Neck	Body	Base-Body Juncture	Base	Base With Foot Ring	Handle	Indeter- minate	Total Sherds	Total Vessels ¹
Jar	77	5	24	2	-	_	_	-	108	57
Pan	139	-	47	15	27	-	-	-	228	103
Bowl	304	1	76	26	12	13	-	14	446	223
Cup	17	-	6	3	2	-	-	2	30	17
Plate	12	1	1	-	2	-	-	-	16	9
Bottle	1	-	-	-	-	-	-	-	1	1
Teapot?	-	-	-	-	1	6	-	-	7	1
Colander	-	-	-	-	-	1	-	-	1	1
Lid	-	-	-	-	-	-	2	-	2	2
Total	550	7	154	46	44	20	2	16	839	414

Table 6.12. Summary of Ayers Town Potsherds Identified by Vessel Type and Broken Down by Sherd Type.

¹Maximum number of vessels represented.

Eight hundred and thirty-nine sherds were identified as to probable vessel type based on diagnostic characteristics such as rim and lip form, overall vessel size (as estimated by orifice diameter), and presence and type of decorative treatment. Non-diagnostic sherds also were classified by vessel type when they refit to diagnostic sherds. These represent a maximum 414 vessels (Table 6.12). Overall, the Ayers Town vessel assemblage bears strong similarity to the Catawba earthenware assemblages documented at Old Town and New Town, and all vessel forms are represented in the ceramic collections from those sites (Davis and Riggs 2004; Plane 2011; Riggs 2010; Riggs et al. 2006).

Jars. Jars have a globular form and a restricted orifice created either by a recurvate, flaring rim, or by a straight, vertical rim (Figure 6.17). One hundred and eight sherds were identified as belonging to jars and represent a maximum of 57 vessels. A majority of jars (59 of 77 rim sherds) have rims which have been reinforced by a rim fold or added rim strip. Both largely complete jars (i.e., Vessels 23 and 47) have flat, simple bases, and all other jars are assumed to have had similar bases, as no curved basal fragments were identified in the Ayers Town ceramic sample. Eighty-four percent of sherds attributed to jars have smudged interiors. Except for a small jar with an incised decoration along the rim fold (Vessel 59) and a jar rim sherd with punctations along the lower rim fold edge, jars were not decorated. Large jars probably were used for both cooking and storage.

Ten jar rim sherds and reconstructed rim sections were large enough to provide information about overall vessel size. Vessel orifice diameters ranged from 4.5 cm to 28 cm (\bar{x} =16.1, s.d.=6.5, n=10), with half being larger than 18 cm (Table 6.13). Although the two largely complete jars vary greatly in size (i.e., Vessel 23 is 4.5 cm in diameter and Vessel 47 is 13 cm in diameter), they share a common morphology which is reflected by a similar ratio of rim diameter to base diameter (1.5:1 and 1.7:1, respectively) and the same ratio of rim diameter to vessel height (0.8:1). Assuming that this common morphology extends over all size classes, the largest jars (with orifice diameters exceeding 25 cm) may have had capacities exceeding 20 liters (or about five gallons).



Figure 6.17. Reconstructed jars and jar rims from Ayers Town.

Vessel Statistics	Rim Diameter	Base Diameter	Height	Thickness	Rim-to- Base Ratio	Rim-to- Height Ratio
Jars						
range	4.5-28.0	3.1-7.7	5.5-7.3	4—7	1.5-1.71	0.8-0.8
mean	16.1	5.4	11.4	4.9	1.6	0.8
s.d.	6.5	2.3	5.9	0.9	0.1	0.0
n	10	2	2	10	2	2
Pans						
range	31.0-45.0	14.0-23.0	10.8-21.0	5-8	1.9-2.4	2.5-3.0
mean	34.5	17.6	13.6	6.4	2.1	2.8
s.d.	5.6	3.4	3.5	0.8	0.2	0.2
n	10	6	6	11	5	5
Bowls						
range	11.0-31.0	4.2-18.1	4.5-8.0	4–7	1.3-2.1	2.2-3.5
mean	18.1	8.8	6.2	5.0	1.8	2.8
s.d.	5.3	3.3	1.0	0.7	0.3	0.4
n	24	16	10	28	13	10
Cups						
range	6.0-9.5	4.7-6.9	3.5-6.5	4-6	1.2-2.0	1.2-2.6
mean	8.3	6.1	5.0	5.0	1.2	1.9
s.d.	1.4	0.8	1.3	0.9	0.7	0.6
n	5	4	4	5	5	4
Plates						
range	22.0-33.0	15.2-16.5	3.4-5.0	5-7	1.5-1.9	5.6-7.2
mean	26.8	15.9	4.2	5.5	1.6	6.3
s.d.	4.2	0.6	0.8	0.9	0.2	0.7
n	4	2	2	4	2	2

Table 6.13. Summary of Vessel Size and Morphology Measurements.¹

¹Rim diameter, base diameter, and height measured in centimeters; thickness measured in millimeters. Vessel 51 was excluded from summaries of pan measurements.

Pans. Pans are large, sub-conical vessels with straight, slightly incurvate, or slightly excurvate sides that attach to a flat base at an obtuse angle (Figure 6.18). Pan rims usually are unmodified and undecorated; however, one extremely large pan (Vessel 51) was constructed with an added clay strip to reinforce the rim. The pan form appears in Catawba ceramic assemblages after 1760 and is a dominant vessel type at Old Town and New Town. As with large jars, pans likely were used primarily for cooking. Pans have thick walls that usually exceed 6 mm in thickness and, as a class, are the largest vessels in the Ayers Town assemblage. Most pans (96%) also have smudged interiors. Vessels of similar size and morphology were produced by Moravian potter Gottfried Aust at Bethabara during the decades before the American Revolution and are illustrated by South (1999:227). One stylistic difference is that Aust's pans have folded rims and an applied, secondary ring of clay to reinforce the rim.

Two hundred and twenty-eight sherds were identified as belonging to pans and represent a maximum of 103 vessels. The 11 pan rims and rim sections providing information about vessel size and morphology represent vessels with: rim diameters of 26 cm to 45 cm (\bar{x} =34.5, s.d.=5.6, n=10); base diameters of 14 cm to 23 cm (\bar{x} =17.6, s.d.=3.4, n=6), and vessel heights of 11 cm to



Figure 6.18. Reconstructed pans and pan rims from Ayers Town.

21 cm (\bar{x} =13.6, s.d.=3.5, n=6) (Table 6.13). If Vessel 51, an unusually large pan with a reinforced rim, is excluded from consideration, then the remaining measured pans display a remarkable uniformity in morphology. Rim-diameter-to-base-diameter ratios for these vessels range from 1.9:1 to 2.2:1 (\bar{x} =2.1, s.d.,=0.2, n=5), and rim-diameter-to-vessel-height ratios range from 2.5:1 to 3.00:1 (\bar{x} =2.8, s.d.=0.2, n=5). The smallest pans had a capacity of about 2.6 liters (2.75 quarts), while the largest (Vessel 51) could have held up to 19 liters (about 5 gallons).

Bowls. Bowls are the most common vessel type within the Ayers Town assemblage (Figures 6.19 and 6.20). They are small to medium-sized, sub-conical vessels with straight or slightly inverted sides and have either simple, pedestaled, or footed flat bases. Four hundred and forty-six sherds were identified as belonging to bowls and represent a maximum of 223 vessels.



Figure 6.19. Reconstructed bowls from Ayers Town.

Three basic bowl forms are recognized, based on a combination of rim and base treatments: (1) bowls with unmodified rims or rims with interior lip facets and simple, flat bases; (2) bowls with interior-beveled rims and simple, flat bases; and (3) bowls with simple rims and bases with pedestals or foot rings. Bowls within the first category resemble small pans, but they have thinner walls and often exhibit red-painted decoration along the vessel lip. Most of these have smudged interiors. Bowls within the second category—with interior rim bevels—are similar in size but are distinctive in their rim treatment. Several of these bowls also are decorated along the beveled rim surface with paint. Those decorated with red paint always have smudge interiors while those with dark brown or black paint have buff, un-smudged interiors. Finally, bowls within the third category are distinguished by their basal form, but they also appear to have only simple, undecorated rims. Most have smudged interiors. These bowls are smaller than those representing the previous two categories and may represent a functionally distinct class. All bowls likely were used as serving vessels or for individual consumption of meals.



Figure 6.20. Reconstructed bowls with foot rings and bowl rims from Ayers Town.

Of the 28 bowl rims, rim sections, and bases providing information about vessel size and morphology, five represent simple bowls with unmodified or faceted rims, 10 represent simple, beveled-rim bowls, nine represent bowls with footed bases, and four cannot be attributed to a specific bowl type (see Appendix B). As a class, bowls have rim diameters that range from 11 cm to 31 cm (\bar{x} =18.1, s.d.=5.3, n=24), base diameters of 4 cm to 18 cm (\bar{x} =8.8, s.d.=3.3, n=16), and vessel heights of 4.5 cm to 8 cm (\bar{x} =6.2, s.d.=1.0, n=10) (Table 6.13). Proportionally, bowls are short, wide vessels with orifices that are about 1.3–2.1 times greater than basal diameter and 2.2–3.3 times greater than vessel height. Of the bowls for which volume could be calculated, the smallest (Vessel 25) has a capacity of about 0.2 liters (half a pint), while the largest (Vessel 5) has a capacity of about 2.1 liters (just over two quarts).



Figure 6.21. Reconstructed cups and cup fragments from Ayers Town.

Cups. Thirty potsherds, representing a maximum of 17 vessels, are attributed to small drinking cups (Figure 6.21). Five of these vessels were complete enough to provide information about overall size and morphology, and reflect a variety of vessel forms. Vessels 3 and 4 have a rounded lip, incurvate sides, and a flat base; Vessel 58 appears to have a similar form. Vessel 1 is a handle-less, London-style cup with straight, slightly flaring sides and a slight shoulder above a footed base. This vessel clearly was inspired by Staffordshire-made teacups and teabowls common during the late eighteenth century. Vessel 52 is a heavy, cylindrical cup with straight, vertical sides and a flat base. Additionally, Vessel 24 appears to be the pedestal base of a small, goblet-style cup. Vessels of a similar form, identified as egg cups, were being produced by Moravian potters at Bethabara during the decades before Ayers Town was occupied (South 1999:221), and Vessel 24 may be a replication of such a vessel. Collectively, these vessels range from 6 cm to 9.5 cm in diameter (\bar{x} =8.3, s.d.=1.4, n=5) and 3.5 cm to 6 cm in height (\bar{x} =5.0, s.d.=1.3, n=4) (Table 6.13).

Plates. The plate form first appears in historic Catawba ceramic assemblages during the period immediately following the Seven Years War and is represented in the Old Town I (c. 1761–1780) assemblage at Old Town. A 16-sided, buff-colored plate decorated with black-painted swags along the interior rim was recovered from the fill of Feature 2, a large cellar that



Figure 6.22. Reconstructed plate rim and rim sherds from Ayers Town.

also contained a 1769 Hibernia halfpence, and other contemporary features also produced fragments of similar plates (Davis and Riggs 2004:11–13; Riggs et al. 2006:82).

Only 16 plate fragments, representing a maximum of nine vessels, were identified in the Ayers Town assemblage (Figure 6.22). One of these, a section of a large, multi-sided serving dish or soup plate comprised of five sherds (Vessel 12), is 28 cm in diameter, 5 cm high, and has a smudged interior with a broad, undecorated rim. Three other plates (Vessels 6, 54, and 56) are represented only by rim sherds and measure from 22 cm to 33 cm in diameter. They are not as deep as Vessel 12, and all have a pale body. Vessel 56 also has traces of dark brown paint along the rim. The remaining sherds attributed to plates represent both pale-bodied and interior-smudged vessels of indeterminate size. One of the pale-bodied rim sherds has dark brown-painted swags along the rim, similar to the plate found at Old Town. All pale-bodied plates appear to have multi-sided rims.

Spatial Distribution of Vessels

As with other artifact classes, the distribution of Catawba-made earthenware within feature contexts was uneven, with a relatively small number of features containing a majority of the sample. And, features containing deposits of primary refuse contributed most of the specimens that could be attributed to specific vessel types, while other features containing the yeatest potsherds or potsherds that were small and heavily eroded. Contexts containing the greatest numbers of potsherds which could be attributed to specific vessel types are: Features 3, 4, 89, and 124 in Residential Complex A; Features 55 and 73 in Residential Complex B; Feature 107 in

Residential Complex C; Features 5, 69, and 123 in Residential Complex D; Features 155, 163, 170, and 185 in Residential Complex E; and Feature 140, a large pit not directly associated with a residential complex. Tables 6.14 and 6.15 present the distribution of potsherds, classified by vessel type, and the maximum numbers of vessels (by type) for features within each of the five identified residential complexes and other aggregated contexts at Ayers Town.

With the exception of Residential Complex A, assemblages within all residential complexes and Feature 140 are dominated by bowl fragments (53.2–74.4%), followed in relative frequency by pans (14.0–40.8%), jars (2.3–17.3%), cups (0.6–13.2%), and plates (0.0–8.1%). Within the Residential Complex A assemblage, pan fragments comprise the majority of identified potsherds (53.7%), followed by bowls (21.5%), cups (13.2%), jars (9.9%), and plates (0.8%). These rankings are the same whether considering numbers of potsherds or maximum numbers of vessels. Feature 3 in Residential Complex A and Feature 69 in Residential Complex D were unique in the greater numbers of cup and plate fragments that they contained, respectively. Otherwise, the relative frequency of vessel types was generally consistent between residential complexes as well as the individual features within those complexes.

While bowls clearly appear to dominate the overall assemblage, it should be pointed out that, because of the unique rim treatments, decorations, and basal forms associated with this vessel type, bowl sherds were easier to identify within the ceramic sample and thus are better represented than other vessel types. Also, several partially or completely reconstructed bowls were found in a few features, most notably Features 140 and 155. Conversely, only single examples of pans and jars (both utilitarian wares) could be largely or completely reconstructed, and most non-rim sherds from vessels of these two types could not be attributed to vessel type because of a lack of diagnostic characteristics. Further analysis of potsherds from individual feature contexts might be able to associate non-conjoining with specific vessels based on paste, color, curvature, and thickness attributes; however, this was not attempted for the present study.

Other Food Preparation and Consumption Activity Artifacts

Other artifacts associated with food preparation and consumption activities include: glass, ceramic, cast iron, tin-plated iron, and brass container fragments of European and Euroamerican manufacture; fragments of tableware utensils; and two large milling stones.

Imported Pottery

Three hundred and nineteen fragments of imported ceramics and one whole stoneware bottle were recovered at Ayers Town. Aside from a whiteware plate fragment found while removing overburden along SC highway 5, all of these specimens are likely associated with the Federal period Catawba settlement at the site. And with few exceptions (i.e., two German stoneware and three Chinese porcelain sherds), all are of English manufacture. Several ware groups are represented, including some that were obsolete by the time Ayers Town was occupied. When compared to the large collection of Catawba-made coarse earthenwares found at the site, it is clear that imported ceramics comprised a minor supplement to the overall assemblage of vessels used by the site's occupants. This pattern is similar to that seen at the partly contemporary settlement of Old Town, and imported ceramics at both sites comprise less than 2% of the overall ceramic assemblage. Once imported ceramics became more readily available, they were quickly

Residential Complex A Feature 3 - 6 15 16 1 1^1 Feature 4 - 19 1 - - - Feature 89 2 22 1 - - - Feature 91 3 5 3 - - - Feature 92 - 1 - - - Feature 124 7 12 6 - - Sub-total 12 65 26 16 1 1	
Feature 3-615161 1^1 Feature 4-191Feature 892221Feature 91353Feature 92-1Feature 1247126Sub-total1265261611Percept9.953.721.513.20.80.8	
Feature 4 - 19 1 - - - Feature 89 2 22 1 - - - Feature 91 3 5 3 - - - Feature 91 3 5 3 - - - Feature 92 - 1 - - - - Feature 124 7 12 6 - - - Sub-total 12 65 26 16 1 1 Percent 9.9 53.7 21.5 13.2 0.8 0.8	39
Feature 89 2 22 1 - - - Feature 91 3 5 3 - - - - Feature 92 - 1 - - - - - Feature 124 7 12 6 - - - - Sub-total 12 65 26 16 1 1 Percent 9.9 53.7 21.5 13.2 0.8 0.8	20
Feature 91 3 5 3 - - - Feature 92 - 1 - - - - - Feature 124 7 12 6 - - - - Sub-total 12 65 26 16 1 1 Percent 9.9 53.7 21.5 13.2 0.8 0.8	25
Feature 92 - 1 -	11
Feature 1247126Sub-total1265261611Percent9.953.721.513.20.80.8	1
Sub-total 12 65 26 16 1 1 Percent 9.9 53.7 21.5 13.2 0.8 0.8	25
Percent 99 537 215 132 08 08	121
1.7 3.7 3.7 41.3 13.2 0.0 0.0	100.0
Residential Complex B	
Feature 19 2	2
Feature 55 1 2 7 1 $ 1^2$	12
Feature 72	9
Feature 73 8 2 8	18
Feature 74 - 2 1	3
Feature 75 7	7
Feature 82 1	1
Sub-total 9 13 28 1 0 1	52
Percent 173 250 538 19 00 19	100.0
Residential Complex C	100.0
Feature 106 1	1
Feature 107 2 4 28	34
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	8
Sub-total 4 6 32 1 0 0	43
Percent $93 140 744 23 00 00$	100.0
Residential Complex D	100.0
Feature 5 -2 16 -1 1^3	20
Feature 33 - 1 1	20
Feature 60 = 1 25 8	24
Feature 116 A A	9
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0 2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	20
Feature 142 4 15 17 1	59
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	111
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	100.0
Percent 5.0 24.5 02.2 0.9 8.1 0.9	100.0
Easture 110	1
Feature 110	1
Fedure 141 4 1	3
Feature 148 - 2	2
Feature 154 I	1 14(
Feature 155 37 14 95	146
Feature 158	3 17
Feature 162 2 1 8 0 $-$	1/
Feature 165 4 15 52 1 - / Easture 170 2 0 6 2 4	57 24
Feature 185 16 2 4 $-$	24 25
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	23 1
Sub-total $67 42 150 10 5 8$	282
Percent 23.8 14.9 53.2 3.5 1.8 2.8	100.0

Table 6.14. Distribution of Potsherds Attributed to Specific Vessel Types.

CHAPTER 6

Table 6.14 Continued.

Community Area / Context	Jar	Pan	Bowl	Cup	Plate	Other	Total
Feature 140/190/191 Complex							
Feature 140	4	69	91	1	-	-	165
Feature 190	-	1	5	-	-	-	6
Feature 191	-	1	2	-	-	-	3
Sub-total	4	71	98	1	0	0	174
Percent	2.3	40.8	56.3	0.6	0.0	0.0	100.0
Structure Locality 9							
Features 112 and 114	0	1	5	0	0	0	6
Percent	0.0	16.7	83.3	0.0	0.0	0.0	100.0
Cemetery Area							
Features 7 and 139	0	3	4	0	0	0	7
Percent	0.0	42.9	57.1	0.0	0.0	0.0	100.0
General Site							
Plow Zone	8	0	34	0	1	0	43
Percent	18.6	0.0	79.1	0.0	2.3	0.0	100.0
Total	108	228	446	30	16	11	839
Percent	12.9	27.2	53.2	3.6	1.9	1.3	100.0

¹bottle, ²colander, ³lid, ⁴teapot.

Table 6.15.	Distribution of Maximum Number of Vessels Represented by Potsherds Attributed
to Specific	Vessel Types.

Community Area / Context	Jar	Pan	Bowl	Cup	Plate	Other	Total
Residential Complex A							
Feature 3	-	4	7	8	1	1^{1}	21
Feature 4	-	5	1	-	-	-	6
Feature 89	2	13	1	-	-	-	16
Feature 91	3	5	2	-	-	-	10
Feature 92	-	1	-	-	-	-	1
Feature 124	4	1	4	-	-	-	9
Sub-total	9	29	15	8	1	1	63
Percent	14.3	46.0	23.8	12.7	1.6	1.6	100.0
Residential Complex B							
Feature 19	-	-	1	-	-	-	1
Feature 55	1	2	7	1	-	1^{2}	12
Feature 72	-	4	2	-	-	-	6
Feature 73	5	1	8	-	-	-	14
Feature 74	-	2	1	-	-	-	3
Feature 75	-	-	3	-	-	-	3
Feature 82	-	-	1	-	-	-	1
Sub-total	6	9	23	1	0	1	40
Percent	15.0	22.5	57.5	2.5	0.0	2.5	100.0

Table 6.15 Continued.

Community Area / Context	Jar	Pan	Bowl	Cup	Plate	Other	Total
Residential Complex C							
Feature 106	1	-	-	-	-	-	1
Feature 107	2	2	16	-	-	-	20
Feature 108	1	2	3	1	-	-	7
Sub-total	4	4	19	1	0	0	28
Percent	14.3	14.3	67.9	3.6	0.0	0.0	100.0
Residential Complex D						2	
Feature 5	-	2	6	-	1	13	10
Feature 33	-	1	1	-	-	-	2
Feature 69	-	1	5	-	3	-	9
Feature 116	-	3	2	-	-	-	5
Feature 122	-	-	2	-	-	-	2
Feature 123	2	11	8	1	-	-	22
Feature 142	-	2	1	-	-	-	3
Sub-total	2	20	25	1	4	1	53
Percent	3.8	37.7	47.2	1.9	7.5	1.9	100.0
Residential Complex E							
Feature 110	-	-	1	-	-	-	1
Feature 141	3	-	1	-	-	-	4
Feature 148	-	1	-	-	-	-	1
Feature 154	1	-	-	-	-	-	1
Feature 155	7	2	14	-	-	-	23
Feature 158	-	-	3	-	-	-	3
Feature 162	2	1	7	1	-	-	11
Feature 163	3	5	30	1	-	1^{4}	40
Feature 170	3	7	4	2	2	-	18
Feature 185	8	2	4	1	1	1^{3}	17
Feature 189	-	1	-	-	-	-	1
Sub-total	27	19	64	5	3	2	120
Percent	22.5	15.8	53.3	4.2	2.5	1.7	100.0
Feature 140/190/191 Complex							
Feature 140	2	16	29	1	-	-	48
Feature 190	-	1	5	-	-	-	6
Feature 191	-	1	2	-	-	-	3
Sub-total	2	18	36	1	0	0	57
Percent	3.5	31.6	63.2	1.8	0.0	0.0	100.0
Structure Locality 9							
Features 112 and 114	0	1	3	0	0	0	4
Percent	0.0	25.0	75.0	0.0	0.0	0.0	100.0
Cemetery Area							
Features 7 and 139	-	3	4	-	-	-	7
Percent	-	42.9	57.1	-	-	-	100.0
General Site							
Plow Zone	7	0	34	0	1	0	42
Percent	16.7	0.0	81.0	0.0	2.4	0.0	100.0
Total	57	103	223	17	9	5	414
Percent	13.8	24.9	53.9	4.1	2.2	1.2	100.0

¹bottle, ²colander, ³lid, ⁴teapot.

CHAPTER 6

	Co	ntext	Т	otal
Ware Group	Features	Other	Ν	Percent
Creamware	68	86	154	48.1
Pearlware	36	44	80	25.0
Coarse Earthenware	16	5	21	6.6
Tortoiseshell Ware	15	0	15	4.7
Salt-Glazed Stoneware	7	3	10	3.1
Tin-Enameled Earthenware	9	1	10	3.1
Green Glazed Cream-Bodied Ware	6	1	7	2.2
Jackfield-Type Ware	6	0	6	1.9
Yellow-Glazed Refined Earthenware	5	0	5	1.6
Slipware	3	1	4	1.3
Porcelain	1	2	3	0.9
Refined Earthenware (Indeterminate)	2	0	2	0.6
Dry-Bodied Red Stoneware	2	0	2	0.6
Whiteware	0	1	1	0.3
Total	176	144	320	100.0

Table 6.16. Summary of Imported Ceramics from Ayers Town.

adopted by Catawba households. At New Town, occupied during the two decades after Ayers Town is believed to have been abandoned, imported ceramics, including large amounts of blue hand-painted, polychrome hand-painted, and "annular ware" pearlware, comprise more than 15% of the overall ceramic assemblage—an assemblage that included substantial quantities of Catawba-made earthenwares.

In descending order of frequency, imported ceramics from Ayers Town include creamwares, pearlwares, coarse earthenwares, tortoiseshell ware, salt-glazed stoneware, green-glazed creambodied wares, Jackfield-type ware, tin-enameled wares, yellow lead-glazed ware, slipware, porcelain, and two fragments of a dry-bodied red stoneware lid (Table 6.16). The distribution of these ware groups by context is provided in Table 6.17.

The sherds representing minority wares (i.e., other than creamwares or pearlwares), many of which were manufactured one or more decades before Ayers Town was established, appear to be from only one or two vessels, and most of these represent uncommon forms such as small saucers, cups, condiment jars, creamers, teapots, and bottles rather than plates and bowls. As such, they represent a varied assortment of ceramics. Another unusual characteristic of the assemblage is that several circular vessel bases and a circular lid were intentionally chipped along the outer margins (see Figures 6.26h, 6.27c, 6.31b, and 6.32d). While the origin of these ceramic pieces is unclear, it is possible that they were retrieved or scavenged from the Catawba town, situated across the river, that was abandoned a year before Ayers Town was established. While this earlier town site has not been investigated archaeologically, it is known from cartographic and historical accounts to have been occupied throughout the 1770s (Davis 1942:553; Mouzon 1775), and the imported ceramics available to Catawbas at that time would have included most of the minority wares found at Ayers Town.

During analysis, each specimen was coded by size, ware group, type, decoration, condition, crossmends, and type of vessel represented. Primary references used for classification and

Context	Cream- ware	Pearl- ware	Coarse Earthen- ware	Tortoise- shell Ware	Salt-glazed Stoneware	Tin- enameled Ware	Other ¹	Total
Feature 3	0	0	0	0	2	1	3	6
Feature 4	Ő	Ő	ů 0	Ő	0	0	1	1
Feature 5	2	Ő	1	Ő	Ő	Ő	1	4
Feature 55	29	5	0	Ő	ů 0	ů 0	2	36
Feature 67	0	1	1	Ő	1	ů 0	2	5
Feature 68	1	0	0	0 0	0	ů 0	0	1
Feature 69	5	Ő	ů 0	Ő	ů 0	1	0	6
Feature 72	0	Ő	ů 0	0 0	ů 0	1	0 0	1
Feature 73	Ő	Ő	2	Ő	ů 0	0	0	2
Feature 89	Ő	Ő	0	12	Ő	ů 0	1	13
Feature 91	1	0	0	3	1	0	0	5
Feature 92	2	0	0	0	1	0	0	3
Feature 95	0	1	0	0	0	0	0	1
Feature 102	0	0	1	0	0	0	0	1
Feature 107	0	0	1	0	0	0	0	1
Feature 108	1	0	7	0	0	1	0	9
Feature 123	2	2	1	0	0	2	1	8
Feature 124	2	0	0	0	0	0	1	3
Feature 139	0	2	0	0	0	0	0	2
Feature 140	2	8	0	0	1	1	0	12
Feature 141	0	0	2	0	0	0	1	3
Feature 145	0	0	0	0	0	0	1	1
Feature 155	1	1	0	0	0	0	4	6
Feature 158	1	0	0	0	0	0	0	1
Feature 160	0	1	0	0	0	0	0	1
Feature 162	15	7	0	0	1	1	1	25
Feature 163	4	1	0	0	0	0	0	5
Feature 170	0	0	0	0	0	1	4	5
Feature 185	0	4	0	0	0	0	1	5
Feature 190	0	0	0	0	0	0	1	1
Feature 191	0	3	0	0	0	0	0	3
Plowzone	86	44	5	0	3	1	5	144
Total	154	80	21	15	10	10	30	320

Table 6.17. Distribution of Imported Ceramic Ware Groups by Context.

¹Includes green glazed cream-bodied ware, Jackfield-type ware, yellow-glazed refined earthenware, slipware, porcelain, refined earthenware (indeterminate), dry-bodied red stoneware, and whiteware.

description include Arent et al. (2011), Aultman (2003), MAC Lab (2003), Monticello Dept. of Anth. (2010), Noel Hume (1970), and South (1977).

Creamware. Creamware, or Queens Ware, was the most common English-imported ceramic of late colonial and early Federal-period America, and comprises almost half (n=154, 48.1%) of all imported ceramics recovered at Ayers Town. Its inception is credited to Josiah Wedgwood in 1762, and it continued to be produced until about 1820 (South 1977:212). According to Noel Hume (1970:126), creamware sherds do not occur in American

archaeological contexts until the very late 1760s, and this would seem to be supported by evidence from Old Town, where contexts attributed to the pre-1780 component, designated Old Town I, contained only three creamware sherds among a total of 37 imported ceramics.

Creamware is a refined earthenware with a cream-colored body, or paste, and a clear glaze. This glaze has a yellow or greenish-yellow color when it puddles along the edge of a vessel footring. These characteristics differentiate it from pearlware, which has an overall bluish-white appearance and a glaze that appears blue when puddled. Creamware sherds were recovered from both plowzone (n=86) and feature (n=68) contexts; all but 15 of the sherds from features came from Features 55 (n=29), 69 (n=5), 162 (n=15), and 163 (n=4). Most sherds, even from feature contexts, were small, with all but three being less than 4 cm in diameter.

Eleven fragments are from slipped "annular ware" vessels, probably mugs, bowls, or pitchers (Figure 6.23a–d, f–h). Ten of these are from a vessel (or vessels) that had a solid reddish brown exterior slip and a marbled slip variegated surface composed of medium blue and dark brown swirls. These slipped surfaces were separated by a dark brown and cream, engine-turned band. Four of these came from plowed soil overlying Features 72 and 73, two came from Features 123 and 140, and the remainder came from scattered test units. The other "annular ware" creamware fragment, recovered from Feature 124, is from a vessel with a dendritic mocha pattern and appears to have been burned (Figure 6.23e).

Three underglaze transfer-printed creamware sherds were recovered. Two of these are from the same vessel and have an exterior black print design composed of small diamonds filled with stars (Figure 6.23i). This design element, referred to as Diaper/Star in the DAACS stylistic nomenclature (Arendt et al. 2011), usually is applied as a molded, rather than as a transfer-printed, decoration. These sherds were recovered from Feature 55 and Square 870R190, a test unit located 5 m south of Feature 55. The other sherd, with an exterior black transfer-printed design of indeterminate composition but from a different vessel, also was found in Feature 55.

The other 140 creamware sherds from Ayers Town are undecorated (Figure 6.23j–n). Of these, about 43% (n=60) can be associated with a probable vessel form or forms based on rim and base configuration or other unique formal characteristics. They include: plates (n=39); teabowls, teacups, teapots, or pitchers (n=10); bowls (n=6); teapot lids (n=4); and a tankard (n=1). None of the sherds were large enough to reliably estimate vessel size. Several of the plate rimsherds are from plates with a molded scalloped rim (Figure 6.23j–k).

Pearlware. Pearlware represents a refinement of creamware and was mass produced by English potters from about 1780 until the middle of the nineteenth century (South 1977:212). It has an off-white clay body and a clear lead glaze that gives it a slight bluish tint, especially along footrings and around handle junctures where the glaze has puddled. This bluish tint makes it appear whiter than creamware. Most pearlware vessels were decorated, and the most common vessel types are: blue and green-edged plates; "annular ware" mugs, bowls, and jugs with horizontal bands of colored patterns and engine-turned grooves; and bowls, teabowls, saucers, and plates with blue hand-painted, polychrome hand-painted, and transfer-printed designs (Noel Hume 1970:129–133).

Eighty pearlware sherds were recovered from Ayers Town. Thirty-nine of these are undecorated; the remainder include fragments of blue hand-painted (n=24), polychrome hand-painted (n=10), "annular ware" (n=6), and blue edge-decorated (n=1) vessels. Pearlware sherds



Figure 6.23. Creamware sherds from Ayers Town: "annular ware" sherds with marbled slip variegated surface (a–d), dendritic mocha pattern (e), and reddish brown slip (f–h); black transfer-printed sherd (i); and undecorated plate rimsherds (j–k), basal sherds with footrings (l–m), and sherd from a domed teapot lid (n).

represent the following vessel forms: bowls (n=18); creamers, pitchers, or teapots (n=3); plates or saucers (n=19); teacups or teabowls (n=7); teapot lids (n=2); and indeterminate (n=31). As with the creamware sherds just described, most pearlware sherds were small, with all but five being less than 4 cm in diameter. Almost half (n=37, or 46.3%) of all pearlware sherds were recovered from feature contexts, with most being found in Feature 55 (n=5 sherds representing 3 vessels), Feature 140 (n=8 sherds representing 2 vessels), Feature 162 (n=7 sherds representing 5 vessels), and Feature 185 (n=4 sherds representing 2 vessels). Eight other features yielded a total of 13 pearlware sherds (Table 6.17). The remaining sherds came from plowzone contexts and mostly are very small and heavily eroded.

Design elements present on the 24 pearlware sherds from vessels with blue hand-painted decorations include: a fine-line band below the lip exterior or interior; flowers, leaves, or foliage on the vessel exterior; blue lines on the exterior that likely represent stems; and unidentifiable specks of blue paint (Figure 6.24c–g). Most of these sherds were too small to determine overall designs. Exceptional pieces within this category are: a fluted teacup rimsherd from Feature 55 with a blue-painted lip and blue flowers on the exterior surface (Figure 6.24h); a bowl or teabowl fragment, also from Feature 55, with a blue water and plant (?) design on the exterior (Figure 6.24j); a teapot lid finial from Feature 155 with blue petals around the finial top (Figure 6.24a); and a bowl rimsherd from Feature 162 with a blue line trellis between blue bands on the rim interior (Figure 6.24b). Underglaze blue hand-painted pearlware has a production date range of 1780 to 1820 (South 1977:212).

Design elements present on the 10 polychrome hand-painted pearlware sherds from the site include: three conjoining teacup or teabowl rimsherds from Feature 55 (Figure 6.25d) and another from Square 879R193 with wide and a thin olive bands just below the interior and exterior lip; a sherd with a straight olive line on the exterior; two sherds with designs composed of olive stems, green leaves, and blue flowers (Figure 6.25b–c); a bowl rimsherd from Feature 163 with wide olive bands below the interior and exterior lip, blue swags with orange and green suspended tassels on the exterior, and an indeterminate orange, blue, and green design on the interior (Figure 6.25h); a teapot lid fragment from Feature 162 with a olive brown band around the outer margin and a floral motif composed of a brown stem, a green leaf, and a blue flower (Figure 6.25f); and another teapot lid fragment from backhoe stripping that has a paired blue and orange band around the outer margin (Figure 6.25g). Underglaze polychrome hand-painted pearlware has a slightly more restricted production date range of 1795 to 1815 (South 1977:212), and this type of imported ceramic occurs much more frequently at the early nineteenth-century site of New Town (Davis and Riggs 2004).

The six "annular ware" pearlware sherds from Ayers Town appear to represent three, or possibly four, vessels. Two of these, found in the plow zone, are probable bowl fragments with a wide, brown or dark olive band around the perimeter. Another sherd, a bowl rimsherd from Feature 95, has an engine-turned band of brown dots and squares below exterior lip (Figure 6.25e). Finally, three sherds from Feature 185 are from a single bowl with an exterior decoration composed of vertical stacks of brown dashes at regular intervals (DAACS dash band 11) below an incised, engine-turned, green cordoned band at the vessel lip (Figure 6.25i–k) (Arendt et al. 2011). "Annular ware" pearlwares have a production date range of 1790 to 1820 and also are much more common at New Town (Davis and Riggs 2004; South 1977:212).

Finally, a single, molded, blue edge-decorated plate rimsherd was recovered from Feature 123. The sherd is small and eroded. Given that 18 fragments from plate or saucer bases were



Figure 6.24. Pearlware sherds from Ayers Town: blue hand-painted lid handle (a), rimsherds (b, g–h), and body sherds (c–f, j); blue edge-decorated plate rimsherd (i); and undecorated section of a plate base (k).



Figure 6.25. Pearlware sherds from Ayers Town: undecorated pitcher handle fragment (a); polychrome hand-painted body sherds (b–c), rimsherds (d, h), and teapot lid fragments (f–g); and "annular ware" rimsherds (e, i-j) and body sherd (k).



Figure 6.26. Coarse earthenware sherds from Ayers Town.

found, including a large, reconstructed section of a plate base from Feature 140 (Figure 6.24k), it is unusual that only one small plate rim fragment (Figure 6.24i) was recovered. Blue and green edge-decorated pearlware plates have a date range of 1780 to 1830 (South 1977:212).

Coarse Earthenware. Twenty-one coarse earthenware sherds were recovered, representing at least five vessels. Fourteen of these comprise a single type and may represent a single vessel (Figure 6.26a–c). These sherds have a dark gray (5YR 4/1) paste, an opaque, dark red (2.5YR 2.5/4) lead glaze on both exterior and interior surfaces, and most exhibit pronounced ridges on the interior surface. They range from 4.5 mm to 6.3 mm in thickness. Several of the specimens are spall fragments with only a single glazed surface remaining, suggesting that the vessel experienced thermal shock. These sherds are widely distributed across the northwest quarter of the site and were recovered from plow zone in Squares 870R180, 879R193, and 880R190, and Features 5, 73, 102, 107, and 108 (n=7).

Three coarse earthenware sherds from Squares 860R870 and 870R190 and Feature 73 appear to be from a small, thin-walled teacup or saucer (Figure 6.26d–f). These sherds have a reddish yellow (7.5YR 7/8) paste, dark brown specks on the exterior surface, and a clear lead

glaze. The vessel wall thickness ranges from 3.5 mm at the base to 1.6 mm near the vessel shoulder, and it has a 2 cm diameter foot ring.

Two highly unusual sherds from the same vessel were recovered from Feature 141 (Figure 6.26g). They have a reddish yellow (5YR 7/8) paste and are from a foot ring that was 7.1 mm thick and about 50 mm in diameter. The basal surface is flat and the exterior is ribbed. What makes these specimens unusual is the scalloped upper edge. This edge was cut and has a thin, clear lead glaze. A small fragment of white slip adheres to the glaze at the peak of the scallop, suggesting that a white-slipped vessel was attached to the foot ring. While the cut-outs forming the scalloped edge are reminiscent in execution of a puzzle jug, it is believed that these sherds may be from an ornamental table piece such as a salt cellar or condiment jar.

One of the two remaining coarse earthenware sherds is a small fragment from Feature 67. It has a reddish yellow (5YR 6/6) paste and a dull, greenish brown lead glaze on both surfaces. It appears to have been burned. The other specimen, from Feature 123, is an unglazed pedestal base of a small bowl or cup (Figure 6.26h). It is 4.2 cm in diameter and the edge of the vessel body just above the base has been roughly chipped. As with several of the earthenware sherds just described, it too has a reddish yellow (5YR 6/8) paste.

Tortoiseshell Ware. Tortoiseshell ware refers to an early refined earthenware that was produced between about 1740 and 1775 in the factory of Thomas Whieldon and by other English potters. It has a pale yellow or cream-colored paste and a brown, "mottled" lead glaze (Noel Hume 1970:123–125; Monticello Dept. of Anth. 2010:16). Tortoiseshell ware also was produced by South Carolina potter John Bartlam during the 1770s (South 2004:1). Fifteen fragments of this ware type were recovered from Features 89 (n=12) and 91 (n=3), two soil borrow pits at the east edge of the site within Residential Complex A. Ten of the 12 specimens from Feature 89 are from a matching teabowl and saucer (Figure 6.27a–b); the other two sherds are from a second saucer. The three sherds from Feature 91 are from a second teabowl and have a green-and-brown instead of a brown "mottled" glaze.

Salt-Glazed Stoneware. Nine fragments of salt-glazed stoneware and a complete stoneware bottle were recovered. The whole bottle came from Feature 162 and measures 6.5 cm in diameter and about 9.5 cm in height (Figure 6.28). Short, cylindrical bottles are usually classified as ink bottles, though the function of this bottle is uncertain. The brown-glazed exterior, and particularly the vessel lip, are heavily worn. Five of the stoneware fragments are body sherds from larger cylindrical bottles, and glaze color and interior surface striation patterns indicate that two bottles are represented (Figure 6.29a–b). A white salt-glazed bottle that was 10.2 cm in diameter is represented by three sherds from Feature 67, plowed soil overlying Feature 72, and plowed soil stripped from the vicinity of Features 89 to 94. The other bottle, represented by two sherds from Feature 92 and plowed soil stripped in the vicinity of Feature 92, was 9.7 cm in diameter and had a light yellowish brown (10YR 6/4) mottled exterior and a pink (7.5YR 7/4) interior.

Two other sherds — a body sherd with a trace of a handle attachment from Feature 91 and a thick handle fragment from Feature 140 — appear to be from a single jug with a white salt glaze (Figure 6.29c–d). Finally, two conjoining sherds from Feature 3 are from the neck of a Westerwald/Rhenish krug (i.e., a bulbous stein or pitcher with a straight, vertical neck) with a dark reddish brown (2.5YR 3/4), reeded or cordoned neck (Figure 6.29e). Westerwald



Figure 6.27. Tortoiseshell ware teabowl (a) and saucer (b) fragments and chipped base of a greenglazed cream-bodied ware bowl or cup (c) from Ayers Town.

stoneware of this type was produced from about 1700 until 1775; the other white and brown English salt-glazed stonewares from Ayers Town have date ranges of c. 1720–1805 and c. 1690–1775, respectively (South 1977:210).

Tin-Enameled Earthenware. Tin-enameled earthenware, or delftware, refers to a low-fired, soft-paste ceramic with a thick, opaque white glaze comprised of lead and tin. It was manufactured in England and Holland between about 1600 and 1802. Similar ceramics (i.e., faience and majolica) were produced in France, Spain, and Portugal. Ten fragments of probable English tin-enameled earthenware were recovered at Ayers Town. All are small fragments, with the largest being only 2 cm in diameter, and they most likely represent bowls, cups, or small jars.



Figure 6.28. Brown stoneware bottle from Feature 162 at Ayers Town.



Figure 6.29. Salt-glazed stoneware sherds from Ayers Town: white glazed bottle sherd (a, exterior and interior views); brown glazed bottle sherd (b, exterior and interior views); handle and body sherds from a white glazed jug (c–d); and conjoined neck sherds from a Westerwald krug (e, exterior and interior views).



Figure 6.30. Tin-enameled earthenware (a–d) and slip-decorated coarseware (e–g) sherds from Ayers Town.

Six of the sherds are undecorated; the remainder are decorated with blue, hand-painted designs (n=3) and a polychrome floral pattern using a blue, green, and brown palette (Figure 6.30a–d). Tin-enameled sherds were widely distributed across the site and were recovered from Sq. 868R158 (plow zone) and Features 3, 69, 72, 108, 123 (n=2), 140, 162, and 170.

Green-Glazed Cream-Bodied Ware. Seven sherds were recovered that have a creamcolored paste and a green glaze. Although their origin of manufacture is uncertain, they resemble minor variants of green-glazed creamware as well as Carolina creamware, produced in the 1770s by John Bartlam (South 2004). Most of the sherds from Ayers Town are too small to determine vessel form; however, one specimen, from Feature 141, is the base of a small bowl or cup with a 27 mm diameter foot ring (Figure 6.27c). As with the coarse earthenware bowl or cup base found in Feature 123 and described earlier, the edge of this basal sherd also has been roughly chipped. None of the sherds are from molded vessels. Green-glazed cream-bodied ware sherds were recovered from Square 890R170 and Features 3, 55, 67, 89, 141, and 185.

Jackfield-Type Ware. Six fragments of Jackfield-type, or Jackfield, ware were recovered. Five sherds are from a small creamer or teapot that has a lustrous black glaze and a reddish paste (Figure 6.31a). Four of these pieces came from Feature 155; the other was found in Feature 67, a refuse-filled stump hole within the probable road corridor that runs through the middle of the site. Another Jackfield-type sherd with a glassy black glaze and a purplish-gray paste was



Figure 6.31. Jackfield-type creamer or teapot fragment (a, exterior and interior views) and leadglazed yellow ware teapot lid (b, top and bottom views) from Ayers Town.

recovered from Feature 123. According to Noel Hume (1970:123), Jackfield ware "was produced in quantity from about 1745 to 1790. The body is usually fired to purple or gray and is coated with a deep-black glaze.... The Jackfield Pottery in Stropshire was founded...about 1750, but a very similar ware was made in the same period by Thomas Whieldon and others in Staffordshire, Whieldon's having a red body and a slightly more brilliant black glaze." Both varieties are represented at Ayers Town.

Yellow-Glazed Refined Earthenware. Five fragments of yellow, lead-glazed, refined earthenware were found. Three of these sherds, from Features 3 and 4, are from the footed base of a small saucer, bowl, or teapot. Before being broken, the edges of this vessel base had been roughly chipped. A teapot lid, also with roughly chipped edges, was recovered from Feature 170

(Figure 6.31b). It has a squat handle and a double-beaded band around the outer edge. Finally, a small yellow ware body sherd was recovered from Feature 190. It is uncertain whether these sherds represent Carolina creamware produced by John Bartlam (South 2004) or are the products of other English potters.

Slipware. Slipware refers to a variety of slip-decorated, coarse earthenwares made between about 1670 and 1795. Four fragments of slipware were recovered from Sq. 870R160 (plow zone) and Features 5, 124, and 170 (Figure 6.30e–g). Two of the sherds re-fit, and all appear to be from the same pink-bodied vessel. The vessel exterior had a dark reddish brown slip that was decorated above the shoulder with broad, curved white lines. The exterior surface above the shoulder and the vessel interior possess a yellow lead glaze. Fragments of similar vessels recovered from Oxon Hill (18PR175) in Maryland and dated c. 1710–1750 are illustrated in *Diagnostic Artifacts in Maryland* under Staffordshire-type Slipwares (MAC Lab 2003). The exact age and origin of this vessel are unknown.

Porcelain. Three fragments of underglaze, blue hand-painted Chinese porcelain were recovered from Squares 876R191 and 878R193, and from Feature 162. Because the fragments from the unit excavations are small, it is unclear if more than a single vessel is represented. The sherd from Feature 162 is from a plate with an 8 cm diameter foot ring and has a landscape design on the interior surface comprised of a tree and a boat with two seated persons (Figure 6.32a). Underglaze blue Chinese porcelain has an estimated date range of c. 1660–1800 (South 1977:210).

Refined Earthenware (Indeterminate). Two refined earthenware sherds were recovered that lack an exterior glaze. One of the specimens, from Feature 55, is a small, 8 mm diameter fragment with heavily worn edges. It is interpreted as a gizzard stone, or gastrolith, probably from a chicken. The presence of chickens at Ayers Town is supported by the occurrence of eggshell fragments in the fill of Feature 3. The other specimen came from Feature 170 and is a complete, bisque-fired bowl base with a 9 cm diameter foot ring (Figure 6.32d). It has a pink-colored (7.5YR 8/4) paste and lacks any evidence of a glaze. As with other vessel bases found at Ayers Town, it has been roughly chipped around the margin. No explanation is available as to why a fragment of an unfinished, wheel-thrown vessel would occur at Ayers Town.

Dry-Bodied Red Stoneware. Two non-fitting fragments of a single red stoneware teapot lid were recovered from Features 145 and 170 (Figure 6.32b–c). Dry-bodied red stonewares were produced by Staffordshire potters throughout much of the 1700s; however, these specimens also have a cleanly molded, sprigged rococo decoration on the top surface that resembles "rosso antico," a dry-bodied redware first produced by Josiah Wedgwood in 1763 (Noel Hume 1970:120–121). The Ayers Town sherds likely date to the last quarter of the eighteenth century.

Whiteware. One basal fragment of a whiteware plate was recovered during mechanical stripping of overburden at the south edge of the site. Production of whiteware begins about 1820, and so this specimen post-dates the main occupation of Ayers Town.

Mean Ceramic Dates. The mean ceramic dating method, developed by Stanley South (1977:201–236), is a common method used by archaeologists to estimate the age of archaeological deposits based on the kinds and proportions of dated imported ceramics that they


Figure 6.32. Chinese porcelain (a), dry-bodied red stoneware (b–c), and bisque-fired refined earthenware bowl base (d, top and bottom views) from Ayers Town.

contain. Its underlying assumption is that the popularity of ceramic types follows a unimodal curve, with an inception point or beginning date of manufacture, a period of increasing and then decreasing frequency of use, and a terminal date of manufacture. The dating method simply determines the median dates of each ceramic type present in a deposit or assemblage, defined as the mid-points between the inception and terminal dates for the types, and then assigns that median date to each datable sherd. Those median dates are then summed and divided by the total number of datable sherds, which provides a mean or average median date, referred to as the mean ceramic date.

Two mean ceramic dates were calculated for Ayers Town: one based on the entire imported ceramic assemblage (except the single whiteware sherd that post-dates the site occupation) and one based on just the creamware and pearlware types, excluding those sherds that appear to predate the period of site occupation. The purpose of this second calculation was to see what date would be obtained from those ceramics which likely were newly acquired while the site was occupied. The data used to calculate the mean ceramic dates are provided in Table 6.18. Estimated date ranges for individual ceramic types were taken from South (1977:Table 31) and

Ceramic Type	Ν	Begin	Median	Reference
"Annular Ware" Creamware	11	1785-1820	1803	DAACS 2006
Transfer-Printed Creamware	3	1783-1820	1802	DAACS 2006
Undecorated Creamware	140	1762–1820	1791	DAACS 2006, South 1977
"Annular Ware" Pearlware	6	1790–1830	1810	DAACS 2006
Blue Edge-Decorated Pearlware	1	1775-1830	1803	DAACS 2006
Underglaze Blue Hand-Painted Pearlware	24	1775-1820	1798	DAACS 2006
Underglaze Polychrome Hand-Painted Pearlware	10	1795-1830	1813	DAACS 2006
Undecorated Pearlware	39	1775-1830	1803	DAACS 2006
Lead-Glazed Coarse Earthenware	21	_	_	
Tortoiseshell Ware	15	1740-1775	1758	DAACS 2006
White Salt-Glazed Stoneware	7	1720-1805	1763	DAACS 2006
Brown Salt-Glazed Stoneware	1	1690-1775	1733	South 1977
Westerwald/Rhenish Stoneware	2	1700-1775	1738	South 1977
Tin-Enameled Earthenware (18th century)	10	1600-1802	1750	South 1977
Green Glazed Cream-Bodied Ware	7	1759-1775	1767	South 1977
Jackfield-type Ware	6	1740-1790	1765	DAACS 2006
Yellow-Glazed Refined Earthenware	5	_	_	
Yellow-Glazed Slipware	4	1670–1795	1733	DAACS 2006, South 1977
Underglaze Blue Chinese Porcelain	3	1660-1800	1730	South 1977
Indeterminate Refined Earthenware	2	-	_	
Rosso Antico Dry-Bodied Red Stoneware	2	1763-1775	1769	South 1977
Undecorated Whiteware	1	1820-2000	_	
Total	320			

Table 6.18. Data Used to Calculate the Ayers Town Mean Ceramic Dates.

the online Digital Archaeological Archive of Comparative Slavery (DAACS 2006). The mean ceramic date calculated for the overall assemblage, containing 291 datable sherds, is 1787.9; the date for just creamware and pearlware sherds is 1795.9. Both dates fit well within the projected occupation span for the site (c. 1781–1800) based on documentary evidence, with the first date approximating the mid-point in that occupation span and the second date, weighted by the presence of later pearlwares, occurring near the end of the projected occupation span. While the uneven occurrence of imported ceramics within pit features suggests slightly different occupation histories for the various households identified at Ayers Town, the numbers of sherds found within those contexts are too small to support a forceful argument about specifically how those histories might have varied.

Glass Containers and Tableware

Two hundred and two glass container and tableware fragments, as well as one whole bottle, were recovered at Ayers Town. While the majority of these fragments were recovered from features, glass was widely distributed across the site, occurring in 37 excavation units. Vessel forms identified within the assemblage include wine bottles (n=104), case bottles (n=7), small pharmaceutical bottles or vials (n=50), tumblers (n=5), stemware (n=1), a decanter (in 30

CHAPTER 6



Figure 6.33. Glass containers and tableware from Ayers Town: wine bottles (a–b); small bottle/vial fragments (c–d); decanter stoppers (e–f); and reconstructed decanter with neck missing (g).

fragments), stoppers (n=3), and unidentified medium-blue glass (n=3). Although a similar range of container and tableware types is represented at both Old Town and New Town, the density of glass is higher at these sites. Two hundred and thirty-one glass fragments were recovered from nine features at Old Town, and more than 1,100 glass fragments were recovered from six cabin loci at New Town (RLA specimen catalog, accession numbers 2498–2500, 2504).

Wine Bottles. Wine bottles at Ayers Town are represented by a whole bottle from Feature 108 (Figure 6.33a), two large fragments of a bottle from Feature 89 (Figure 6.33b), and 101 smaller fragments from 16 other features. The bottles from Features 108 and 89 share a similar morphology to bottles illustrated by Noel Hume (1970:68) and attributed to between 1783 and 1798. Features containing more than one or two fragments include Features 55 (n=6), 91 (n=5),

92 (n=19), 123 (n=4), and 140 (n=20). While most of these fragments were small (less than 4 cm in diameter), Feature 140 contained a bottle neck and large, conjoining fragments of a bottle base. All of these specimens represent globular, hand-blown wine bottles made of dark, olive green glass, and they range from 2–11 mm in thickness.

Case Bottles. Although not common, case bottles occur at other late nineteenth-century Catawba sites (Davis and Riggs 2004:12). Dark green bottle glass fragments at Ayers Town were inferred to represent case-type bottles if they lacked body curvature, and seven glass fragments were identified as such. All were less than 4 cm in maximum dimension, and all came from plow zone excavations. They range from 1–3 mm in thickness.

Pharmaceutical Bottles. Fifty specimens were identified as probable fragments of small, hand-blown glass pharmaceutical bottles or vials (Figure 6.33c–d). These were readily differentiated from wine and case bottle glass by color and thickness. All were clear (n=34) or light green (n=16) in color, and they ranged from <1-2 mm in thickness. Small bottle/vial glass was very fragile, and most specimens were recovered from feature contexts. Eleven features contained small bottle or vial glass, and those containing significant quantities include Features 33 (n=6), 69 (n=7), 123 (n=5), 140 (n=4), and 170 (n=10). Three of the fragments from Feature 123 were only 0.53 mm thick, and they may be lamp chimney rather than bottle glass.

Glass fragments large enough to determine overall shape represent cylindrical bottles less than about 40 mm in diameter with short (10–14 mm) necks, 10–13 mm diameter openings, and a prominent lip flange. Bottles of this type are called pharmaceutical bottles, or phials, by Noel Hume and are similar in morphology to ones he illustrates and attributes to 1780 (Noel Hume 1970:73). Their use and function among the Catawbas is uncertain.

Tableware Glass. The remaining glass from Ayers Town represents tableware items. Five plain tumbler fragments were recovered from the plow zone (n=2), Feature 69, and Feature 123 (n=2). The specimen from Feature 69 is a thick, basal fragment of a drinking glass that measured about 4 cm in diameter at the base. Several flake-removal scars are evident along the broken edge; however, it is unclear if the tumbler base fragment was deliberately knapped. The remaining pieces include two small rim fragments and two body fragments. In addition to these tumbler fragments, a basal rim fragment of a stemware drinking glass also was recovered from the plow zone.

Decanter. All 30 decanter fragments came from Feature 170 and are from the same vessel. The reconstructed decanter, shown in Figure 6.33g, is largely complete except for the vessel neck and rim. The body has a sub-conical shape, tapering from an 88 mm diameter base to a 65 mm diameter shoulder, and would have held about 10 fluid ounces (300 ml or 0.63 pint). It has a polished pontil and a heavily ground base. This form, known as a bell-shaped or tapered decanter, was developed in the 1770s and in use through the 1790s (Leigh 2002:7).

Stoppers. Glass stoppers were recovered from Features 5, 55, and 163. The specimen from Feature 163, made of ground glass, has a sub-rectangular finial and is largely complete (Figure 6.33f). The specimen from Feature 5 is a ball finial decorated with air bubbles or "tears" (Figure 6.33e). Stoppers of this type were in use during the second and third quarters of the eighteenth century and commonly occur at British American military sites of the 1750s and 1760s (Jones and Smith 1985:28). The third specimen, a fragment from Feature 55, appears to be from a

blown, "ribbed" stopper with a hollow center. Glass stoppers probably were used mostly with decanters and have been recovered from both Old Town (n=1) and New Town (n=6) (RLA specimen catalog, accession numbers 2498–2500, 2504).

Finally, three very small, unidentified chips of medium-blue glass were recovered from Features 102 (n=1) and 108 (n=2).

Cast Iron Vessels

By the end of the American Revolution, more durable and cheaper cast iron cookware such as kettles and Dutch ovens had begun to replace the fragile yet more expensive brass kettles which were common during the late colonial period. This shift occurred quickly, once cast iron became available, and can be illustrated by examining the results of systematic metal detecting and excavation at the 1750s site of Nassaw-Weyapee, the 1760s–1790s occupations at Old Town, and New Town, which was abandoned by about 1820 (RLA specimen catalog, accession numbers 2498–2500, 2504, 2521). Investigations at Nassaw-Weyapee produced 129 brass kettle fragments and two bronze kettle lugs but no cast iron vessel fragments. At Old Town, nine possible brass kettle fragments, 38 fragments of cast iron kettles and Dutch ovens, and two wrought iron pot hooks were recovered. At New Town, no evidence of brass kettles was found, but 95 cast iron fragments representing kettles, Dutch ovens, and pans were found along with six pot hooks and handles.

The timing of this shift to cast iron cookware coincides with the establishment of an iron works on Allison Creek, just north of the Catawba reservation boundary. Details about the iron works, known both as the Hill-Hayne Iron Works and the Aera and Aetna Iron Works, are provided in an advertisement for the sale of the property in 1795 (Anonymous 1795). It operated during the last quarter of the eighteenth century and contained two furnaces, a forge, a hammer mill, and several thousand acres of adjoining land that provided iron ore and wood to make charcoal. The iron works produced bar iron and castings both locally and for the Charleston market, by transporting goods by wagon 70 mi to Camden and then by boat. According to the advertisement, "the greatest part of the iron is made into ovens, pots, flat irons, gudgeons, machinery cranks, and at present there appears to be a great demand for machinery for rice-mills, grist, wind and saw-mills." Wagons transporting iron goods to Camden would have traveled a road that passed within a few miles of Ayers Town, thus providing Catawbas with an opportunity to acquire these goods (Drayton 1802b).

Ayers Town, contemporary with the latter half of the Old Town occupation, produced 39 fragments of cast iron cookware and one wrought iron pot handle (Figure 6.34). All but two of these were recovered during metal detecting and are widely distributed across the site. Of the 10 brass sheet fragments that were recovered, only four are of sufficient thickness (i.e., 0.7–1.0 mm thick) to represent possible recycled kettle fragments; these artifacts are discussed under Metal Resources.

Twenty-three of the cast iron vessel fragments can be attributed to eight separate vessels based on rim form, base form, thickness, or re-fitting. The remaining specimens include unidentifiable body fragments and three handles or podes.



Figure 6.34. Cast iron vessel fragments (a-h) and wrought iron pot handle (i) from Ayers Town.

Dutch Ovens. Four Dutch ovens were identified. Vessel 1 is represented by four fragments widely scattered in linear fashion from the east to the northwest edge of the site. Three of the fragments are flat, basal pieces while the fourth is a large, straight rim fragment with a vertical loop handle. Its curvature indicates that the vessel had a basal diameter of 23 cm, a rim diameter of 25 cm, and a height of 11 cm. All fragments were 6–7 mm thick. Vessel 2 is represented by three conjoining, straight rim fragments that are 5 mm thick and exhibit a thickened, offset band that extends 15 mm below the vessel lip. One fragment has a lug handle positioned 23 mm below the rim that is 23 mm in diameter and extends 75 mm from the vessel wall. Vessel 2 fragments were widely scattered between the northwest and the southeast edges of the site. The remaining two Dutch ovens, Vessels 3 and 4, are represented by single fragments found at the western periphery of the site. Vessel 3 is a 5 mm thick straight rim fragment with a rim treatment similar to that described for Vessel 2, except that the thickened band is 20 mm thick. Vessel 4 is an 8 mm thick, flat base fragment with a curved, rather than a near-right-angle, basal edge.

Two vessels appear similar in form to Dutch ovens, but have thinner walls and may have functioned differently. Vessel 5 is represented by seven rim fragments, all of which were clustered within Structure Localities 7 and 8. All have straight profiles, are 4 mm thick, and exhibit a thickened, offset band that extends 12 mm below the vessel lip. None of these fragments conjoin. Vessel 6 is represented by a single, slightly excurvate rim fragment that is 3 mm thick and has a beveled lip. Its curvature indicates a large vessel with a 30 cm rim diameter.

Kettles. Finally, two kettles with constricted necks and everted rims are represented. Vessel 7, comprised of three rim fragments and one body fragment, is 3 mm thick and has a ridge on the exterior located 13 mm below the lip. All of these fragments were found in the vicinity of Structure Localities 1 and 2. The other kettle, Vessel 8, is represented by a rim fragment and a conjoining body fragment. At the neck on the rim fragment is a right-angled loop handle which is 12 mm in diameter. Overall vessel diameter could not be determined for either kettle.

The single wrought iron pot handle (half of a two-piece handle) is about 29 cm long, 10 mm in maximum diameter, and looped at each end. It was recovered along the proposed wagon road corridor at the northwestern edge of the site.

Tinware

Fifty-seven fragments of tinware were recovered from feature contexts (Figure 6.35). Most of these are small, thin, heavily corroded pieces of tin-plated iron sheet. Aside from one specimen recovered from Feature 5 that may be a lacquered, or japanned, snuff box, none of the pieces can be attributed to a specific vessel type. Several fragments, however, have rolled edges representing vessel rims or folded edges representing both rims and side seams. These specimens likely represent cups, plates, pots, pans, or other containers.

Fragments of tinware were recovered from Features 3 (n=6), 4 (n=8), 5 (n=1), 33 (n=1), 68 (n=3), 69 (n=14), 116 (n=1), 123 (n=5), 140 (n=13), 155 (n=3), and 162 (n=2). All but Feature 68 are interpreted as storage facilities. Several excavated cellar pits associated with both the pre-Revolution (Features 2, 15, and 18) and post-Revolution (Features 11 and 14) occupations at Old Town also yielded tinware fragments.



Figure 6.35. Tinware from Ayers Town: top, side, and bottom views of snuff box from Feature 5 (top); and fragments with folded edges from Feature 123 (bottom, left) and Feature 3 (bottom right).

Knives and Spoons

Seven knife and two spoon fragments were recovered (Figure 6.36). Two of the iron knife blade fragments from carving or sheath knives. Two other knife fragments have a round tang and part of the blade; one of these also has a heavy, pewter bolster. All four of these specimens were recovered during metal detecting. The remaining three knives, recovered from Features 123, 140, and 170, are blade fragments of table knives. Two of these have curved, rounded ends. A fragment of a pewter spoon bowl was recovered by metal detecting, and part of a pewter spoon handle (in two pieces) was found in Feature 55.

Personal Activity Group

Artifacts within this activity group include jewelry and other ornaments, smoking pipes and pipe fragments, entertainment items, broken fragments of mirror glass, a coin, a key, pocketknife fragments, fishing gear, and a pair of iron dividers.

Jewelry and Ornaments

By the 1760s, silver had replaced brass as the principal metal used in jewelry worn by the Catawbas. This transition is illustrated by the changing proportion from brass to silver of both



Figure 6.36. Iron knife (a-b, d-e) and pewter spoon (c, f) fragments from Ayers Town.

manufactured and Catawba-made items of personal adornment found at Nassaw-Weyapee (c. 1750s), Old Town (c. 1760s–1790s), and New Town (c. 1790s–1820). At Nassaw-Weyapee, the ratio of silver to brass ornaments is 0.13:1 (n=17); at Old Town it is 1.17:1 (n=26); and at New Town it is 2.5:1 (n=28). While brass tinkling cones, or tinklers, and brass bells are still represented in later Catawba assemblages, new ornaments made of silver, including ball-and-cone earrings and triangular nose bangles, became increasingly popular. The assemblage of jewelry and ornaments at Ayers Town, where the ratio of silver to brass (and tin) ornaments is 2.0:1, reflects this pattern, with the notable exception that no silver nose bangles were recovered. These novel ornaments, made from cut silver sheet and worn suspended from the nose, caught the eye of contemporary observers (Coke 1791) and were relatively common at both Old Town (n=5) and New Town (n=8).

Twelve items of personal adornment were found at Ayers Town and include both manufactured and Catawba-made ornaments made of silver, brass, and tin (Figure 6.37). This does not include 78 large necklace beads discussed earlier with other glass beads under Clothing Group. These items were widely distributed among nine features, including both storage pits (Features 33, 69, 123, 162, and 170) (n=9) and non-storage facilities (Features 72, 74, and 139) (n=3). Silver jewelry include a broach fastener, a broach fragment, a cone and two wire loops from ball-and-cone earrings, a small rolled tubular bead, a cut oval disk with two perforations, and a possible chain link from a nose bangle. Brass ornaments include a crushed bell and a tinkling cone. Finally, two small tin cones also were recovered.

Smoking Pipes

Tobacco smoking is well documented among historic native groups in the American Southeast and was performed in a variety of ritual and secular contexts, including prayer, diplomacy, political deliberation, healing, and recreation (Springer 1981:219). Among Catawba ancestors to the north, such as the Sara, Shakori, and Sissipahaw, the abundance of clay pipes and pipe fragments at archaeological sites associated with these groups indicates that by the



Figure 6.37. Jewelry and ornaments from Ayers Town: silver loops and cone from ball-and-cone earrings (a–b, h); silver chain link for nose bangle (c); rolled silver bead (d); cut oval silver disk (e); silver brooch fragment and clasp (f–g); brass and tin tinkling cones (i–k); and crushed brass bell (l).

seventeenth century tobacco smoking was commonly practiced using both long-stemmed clay elbow pipes and "onion-style" clay pipes (Ward and Davis 1993:203–205, 365–368). While English white-clay, or kaolin, pipes are generally rare on seventeenth-century sites in the Carolina piedmont, by the beginning of the eighteenth century they outnumber locally made pipes (see Davis et al. 2003). Both the abundance of evidence for pipe smoking and the rapid adoption of English-made pipes, once they become readily available, suggest that recreational smoking was widespread by this time. It is tempting, though not clearly demonstrable, to equate

	Kaolin/Other Euroamerican		Local Clay		Stone		Total	
Site	n	%	n	%	n	%	n	%
Nassaw-Weyapee	1,002	89.8	75	6.7	39	3.5	1,116	100.0
Charraw Town	393	95.2	17	4.1	3	0.7	413	100.0
Old Town	19	13.4	117	82.4	6	4.2	142	100.0
Ayers Town	40	16.0	209	83.6	1	0.4	250	100.0
New Town	0	0.0	592	99.7	2	0.3	594	100.0

Table 6.19. Frequency Distribution of English and European-made Clay, Catawba-made Clay, and Catawba-made Stone Smoking Pipes at Five Catawba Town Sites.

the persistence in low frequency of native-made, traditional pipes with their continued use as devices appropriate for performing non-secular functions.

Smoking pipes are well represented on Catawba sites of the mid-eighteenth to early nineteenth centuries. At the mid-eighteenth-century sites of Nassaw-Weyapee and Charraw Town, most pipes are imported English kaolin pipes; locally made elbow pipes of both clay and carved stone, likely made mostly by Catawba artisans, make up 10% or less of those assemblages and reflect more traditional styles and, perhaps, uses (Table 6.19). These traditional pipes have long, squared (and occasionally faceted or round) stems and bowls that are either bulbous or tulip-shaped (i.e., recurvate in profile) and placed at a right angle or slightly obtuse angle to the stem (Fitts et al. 2007:22). Clay pipe exteriors exhibit a natural fired-clay color and are usually buff or reddish brown. These pipes are more appropriately termed pipe heads, as they would have been attached to a longer, hollow stem. During the latter half of the 1700s, as reflected by assemblages at both Old Town and Ayers Town, locally made clay pipes largely replace imported English pipes, and the traditional form common at earlier sites is gradually replaced by plain, short-stemmed elbow pipes with straight or flaring bowls and stems. Bowls are placed at either a right angle or acute angle to the stem, and these pipes often are smudged black and occasionally burnished to create a polished exterior. Such pipes also would have been used with an attached, hollow stem. This pipe form continues into the early nineteenth-century, as evidenced by the Catawba occupation at New Town, with the addition of sometimes elaborate engraved decoration of the pipe bowl and painting (with red sealing wax) of the bowl and stem lip (see Riggs et al. 2006: Figure 5). These decorative pipes, referred to here as the New Town style, likely mark the Catawbas' expansion into the commercial production of pipes, coincident with their developing pottery trade, and establish a distinctive pipe-making tradition that extends up to the present (Blumer 2004; Fewkes 1944; Harrington 1908). More than 75% of the pipes and pipe fragments at New Town are smudged black, and many of those have been subsequently polished.

Six complete or mostly complete smoking pipes and 247 pipe fragments were recovered at Ayers Town. They comprise three broad categories: probable Catawba-made pipes (n=210), English or Euroamerican-made pipes (n=40), and probable non-Catawba-made pipes (n=3). Only one of the probable Catawba pipe fragments is made of carved soapstone; all the remaining specimens are ceramic. The stone pipe fragment, from Feature 4, is a round stem with an 11 mm wide collar at the lip (Figure 6.38p). Stems with narrow lip collars also are represented among the clay pipe fragments.

MATERIAL CULTURE



Figure 6.38. Smoking pipes from Ayers Town: Type 1 pipes (d-f, h) and pipestems with lip collars (m-n); Type 2 pipes (a-c), pipestems with collars (k-l) and facets (o), and incised bowl lip treatment (s); Type 3 pipes (g, i); Type 4 pipestem (q-r); punctated pipe bowl (j); and stone pipestem (p).

Un-smudged			Un-smudged & Polished		Sn	Smu Smudged I		nudged & Polished Tot		tal
Pipe Type	n	ິ%	n	%	n	ິ%	n	%	Ν	%
Type 1	34	56.7	4	6.7	19	31.7	3	5.0	60	100.0
Type 2	19	30.6	5	8.1	9	14.5	30	46.8	62	100.0
Type 3	4	100.0	0	0.0	0	0.0	0	0.0	4	100.0
Type 4	0	0.0	0	0.0	1	11.1	8	88.9	9	100.0
Unidentified	25	33.8	6	8.1	26	35.1	17	23.0	74	100.0

Table 6.20.	Exterior	Surface	Finishes	on Catawba	-made Clay	V Pipes at A	vers Town.
1 4010 0.20.	Direction	Sairace	1 11101100	on catanoa	made Cha	, 1 1000 0011	,

The other 209 probable Catawba-made pipes and fragments can be placed into one of five categories: Type 1– short-stemmed elbow pipes with straight stems and straight bowl profiles; Type 2 – short-stemmed elbow pipes with flaring stems and flaring or recurvate (i.e., tulip-shaped) bowl profiles; Type 3 – short-stemmed, crudely modeled elbow pipes with straight or tapered stems and straight rim profiles; Type 4 – New Town style elbow pipes with engraved or painted decoration; and Unidentified – bowl and stem fragments that cannot be classified as to overall pipe morphology. Unlike later Catawba clay pipes, none of the specimens from Ayers Town show clear evidence of having been made in a mold.

Type 1 Pipes. Sixty Type 1 pipe fragments were identified, comprising 44.0% of classified fragments (i.e., Types 1–4) and representing a maximum of 40 pipes (Figure 6.39d–f, h, m–n). These were widely distributed among 13 features and four test units, with conjoining fragments recovered from Features 55, 140, 163, 190, and 191. Twenty-two fragments have smudged exteriors, and three of those have also been polished (Table 6.20). The remaining specimens, including four with polished exteriors, exhibit a reddish yellow to strong brown color. Most have flattened bowl lips and stems. Three of the un-smudged pipestems are relatively thick compared to other specimens, and one of them has a heel at the base of the bowl. Among the pipestem fragments with smudged or smudged-and-polished exteriors, four (representing two different pipes) have a 3 mm wide collar at the stem lip and one is a faceted stem with 6–8 facets.

Type 2 Pipes. Sixty-four fragments, comprising 47.8% of classified specimens, represent a maximum of 43 Type 2 pipes (Figure 6.38a–c, k–l, o, r). These pipes have flaring stems and bowls. As with Type 1 pipe fragments, these fragments were widely distributed among excavated features, being recovered from 13 features, and often co-occurred within the same fill deposits (i.e., Features 55, 69, 107, 123, and 139). Unlike Type 1 pipes, Type 2 pipes are predominantly smudged and about half of all specimens represent pipes with polished exteriors. Many of the polished pipes are delicate in appearance and have very thin bowl walls that are only 2–3 mm thick. Three pipestems are faceted. One is 10-sided in cross-section (Figure 6.38k), another has 6–8 facets (Figure 6.381), and the third has seven facets and a 3 mm wide collar at the stem lip. Another plain pipestem also has a lip collar of the same width (Figure 6.380), and two small rim fragments from Features 69 and 123, representing the same pipe, have a 7 mm wide collar with vertical incisions around the lip of the flaring bowl (Figure 6.38s). Lastly, two fragments of bowl bases had heels (Figure 6.38a, c).

Type 3 Pipes. Type 3 includes four crudely made, hand-modeled elbow pipes recovered from Features 3, 123, and 162. All have rough exteriors, and none are smudged (Figure 6.38g, i). Given that most pipes at Ayers Town are well-made and exhibit generally consistent formal attributes, it is tempting to view these specimens as products of novice pipemakers or child's toys. A diminutive Type 1 pipe found in Feature 69 also may be a toy pipe (Figure 6.38h). The use of pipes by children at Ayers Town was noted by Henrietta Liston (1797), who observed upon entering the town: "The first objects that struck us were two Boys sitting at the door of a Log House, the oldest a Boy about ten had a bow & arrow in his hand, & the younger, about four, a Pipe in his mouth, was smoking with all the gravity of a Philosopher." Several small toy pipes, including one in the shape of a small tomahawk, were found during excavations at New Town (Riggs et al. 2006:Figure 5).

Type 4 Pipes. While most pipes and pipe fragments from Ayers Town were undecorated, nine specimens exhibit engraved and painted decorations commonly found at New Town. These comprise Type 4 and may date to the late end of the site's occupation. All are smudged, and most are also polished. Four specimens, representing a single pipe bowl that was decorated with an engraved band of two parallel lines containing short, opposing, diagonal lines, were found in Feature 55 (Figure 6.38r). Another pipe bowl fragment with parallel engraved lines was recovered from the plow zone, and Feature 139 produced a heavily weathered pipestem fragment decorated with alternating incised and painted bands (Figure 6.38q). Three other pipe fragments from Features 5 (n=2) and 69 (n=1) also were painted with red sealing wax.

English Kaolin Pipes. Thirty-six fragments of English kaolin, or white-clay, pipes were recovered from plow zone (n=10) and 11 features (n=26). Six of the specimens from features came from Feature 55. The 11 pipestems in the sample have bore diameters that measure 4/64 (n=9) and 5/64 (n=2) inches. Though the sample size is far too small to produce a reliable age estimate, the date derived using the Binford (1962) formula (Y = 1931.85 - 38.26X) is 1771.85. This estimate significantly predates the site's age based on documentary and other archaeological data.

Other Euroamerican Pipes. Four other clay pipe fragments appear to be of English or Euroamerican origin; all are made of pale white clay. Two of these, found in the plow zone, are small, conjoining fragments of a plain pipe bowl with a dull green exterior glaze. The other two fragments, from Features 123 and 162, are small fragments of pipes with a fluted bowl, and the specimen from Feature 123 also has a green exterior glaze.

Other Pipes. Finally, three clay pipe fragments were recovered that, because of stylistic or paste characteristics, vary significantly from the rest of the clay pipe assemblage and may not be locally (i.e., Catawba) made. The first specimen was recovered from the base of the test unit into Feature 102, the erosional gully at the northwest edge of the site. It is made of a coarse, sand-tempered paste similar to some of the earlier Woodland potsherds found at the site. The other two specimens, both bowl rim fragments, are from Features 107 and 162, and likely can be attributed to the occupation of Ayers Town. The Feature 107 fragment, shown in Figure 6.38j, has a fine, very pale brown paste and multiple, irregular lines of small punctations on the bowl exterior. This type of decoration is not seen in any other historic Catawba pipe assemblage. The



Figure 6.39. Entertainment items from Ayers Town: iron Jew's harp frames (a–d); brass Jew's harp frames (e–g); marble (h); small clay spoon (i); and clay dog head effigies (j-k).

last specimen is a bowl rim fragment with two parallel, irregular incisions around the bowl just below the lip. It too is unique among pipe assemblages from historic Catawba sites.

Entertainment Items

Fifteen artifacts were classed as entertainment items (Figure 6.39). Eleven of these were Jew's harp frames made of iron (n=8) or brass (n=3). All have round frame heads and range from 37–54 mm in length. The Jew's harp, or mouth harp, is a lamellophone comprised of a rigid frame and a flexible reed or tongue. The tongue was made of steel and usually does not survive archaeologically. This particular type of musical instrument apparently was quite popular among Catawbas, as it is one of the more common artifact types found on late eighteenth and early nineteenth century Catawba sites. Seven Jew's harps were recovered during investigations at Old Town, and 21 specimens were found at New Town (RLA specimen catalog, accession numbers 2498–2500 and 2504). Iron Jew's harps also were recovered at Nassaw-Weyapee (RLA specimen catalog, accession number 2521) and early eighteenth century Occaneechi Town (Carnes 1987:155–156). Jew's harps at Ayers Town were recovered during metal detecting (n=6) and from Features 5, 123, 163, and 185.

Four clay artifacts also are interpreted as entertainment items. These include a ceramic marble (16 mm diameter) and three toys: a miniature clay spoon from Feature 163, a modeled clay dog head effigy from Feature 55, and another dog head effigy found during backhoe stripping.

Mirror Glass

Eight small fragments of flat glass were recovered from plow zone excavations (n=3) and the fill of Features 106 (n=3), 107 (n=1), and 123 (n=1). All five pieces from features were 1.9

mm thick and had a light green color; the three specimens from the plow zone were clear and of varying thickness. Whereas the plow zone artifacts may be modern window glass, those from features likely are mirror fragments, though no traces of metallic backing were observed. Hand mirror fragments were recovered during excavations at Old Town and New Town (RLA specimen catalog, accession numbers 2498–2500, 2504).

Other Items

Eleven other artifacts are included within the Personal Activities Group. A single copper coin — a 1782 George III Hibernia halfpenny — was recovered from Feature 5 (Figure 6.40a). According to Jordan (n.d.), "under George III Irish halfpence were produced in 1766, 1769, 1774–1776 and 1781–1782. Numerous counterfeit halfpence circulated, many bearing the dates 1781 and 1782.... Many of these coins were shipped to America." Thus, it would have been a relatively common coin during the time Ayers Town was occupied.

Three unusual artifacts, all thought to be from a gilted brass pocket watch, or key watch, were recovered from Features 140 and 190 which, together with Feature 191, form three sequential, overlapping pit contexts at the south edge of the site (Figure 6.40h–j). Their co-occurrence in these related contexts suggest that they represent the same item. The artifact from Feature 140 is a fragment of an embossed-decorated brass watch bezel and is small for a pocket watch, measuring only 34 mm in diameter. One of the artifacts from Feature 190 is a broken fragment of a 7.5 mm wide, curved brass band from the outer edge of the watch. Although it was bent slightly when broken, it appears to match the circumference of the bezel. This watch surround fragment is pierced by a cast brass eye screw, a common feature on late eighteenth-century key watches. The other specimen from Feature 190 is a small brass wire loop. Watch fragments and pieces of probable watch chains also have been recovered at New Town.

A fragment of a bell-like object was found in Feature 33 (Figure 6.40e). It is made of cast Britannia metal (a pewter-type alloy also known as tombac), is 1.2 mm thick, has a recurvate profile, and has an orifice diameter of 36 mm. While it may be a piece of a small bell, it seems more likely that this specimen is part of a smoking pipe bowl, as its diameter and profile are very similar to Type 2 clay pipes found at both Ayers Town and Old Town (see above description). Examples of cast pewter smoking pipes were found during excavations at early eighteenth-century Occaneechi Town (Carnes 1987:154–155).

Other personal items from Ayers Town include: a large iron key from Feature 69 (Figure 6.40f); a small brass pen knife scale with an embossed floral design, found during metal detecting (Figure 6.40b); a fragment of a bone pocketknife scale from Feature 123 (Figure 6.40c); a small iron fishhook from Feature 123 (Figure 6.40d); a copper tine, probably from a fish spear, found in Feature 72 (Figure 6.40g); and a pair of iron dividers recovered during metal detecting (Figure 6.40k). Examples of all these artifact classes also were found during metal detector survey and excavations at New Town.



Figure 6.40. Miscellaneous personal items from Ayers Town: 1782 George III (Hibernia) copper halfpenny (obverse and reverse sides) (a); brass pen knife handle (b); bone pocket knife handle fragment (c); iron fishhook (d); fragment of bell-like object (e); iron key (f); copper fish spear tine (g); brass pocket watch bezel (h); brass pocket watch part (i); brass watch chain (j); and iron dividers (k).

Horse Management Activity Group

This group contains artifacts associated with horse tack and horse-drawn transportation devices. By the last quarter of the eighteenth century, Catawbas were heavily reliant upon horses for transportation and other activities requiring draft animals. Artifacts commonly found on Catawba sites of this period, specifically New Town, Old Town, and Ayers Town, include bridle, saddle, harness, and wagon hardware, spurs, horseshoes, and horseshoe nails.

Twenty-one such artifacts were recovered from Ayers Town. Four iron harness buckles and two buckle fragments were recovered from metal detecting (n=4), Feature 33 (n=1), and Feature 69 (n=1) (Figure 6.41a–d). The four complete buckles have single tongues, and the buckle frames range from 34–40 mm in maximum dimension. Three oval brass harness bosses were recovered during metal detecting (Figure 6.41e–g). Two of these measure 38 mm by 24 mm, and one has a stamped floral decoration on its face. The third specimen is smaller, measuring 31 mm by 17 mm, and exhibits traces of a gilt finish. Other bridle or harness hardware include an emboss-decorated brass strap or rein guide with an embossed "diamond" decoration on its face, a folded sheet-iron tip for a heavy leather strap, and an iron snaffle bit with a jointed mouthpiece (Figure 6.41h–j). The bridle bit was found in Feature 69; the other two artifacts came from metal detecting.

Three pieces of saddle hardware were recovered. An iron stirrup fragment was recovered from metal detecting, and two braces for a saddle were found in Feature 5 (Figure 6.410–p). One of the braces is an L-shaped, wrought iron rod with perforated, flattened ends for attachment to a wooden saddle frame. One arm of the brace measures 67 mm in length; the other arm is 100 mm long. The second brace is poorly preserved in three fragments, but appears similar to the complete specimen. The only wagon part from the site was a wrought iron singletree clip and hook recovered during metal detecting (Figure 6.41k).

A branch of a small horseshoe or pony shoe, three wrought horseshoe nails, and a probable cut horseshoe nail were recovered during the metal detection survey (Figure 6.411–n). All four nails are about 30 mm long and have large square heads. Finally, a rectangular horse bell made of sheet brass with a black japanned exterior was recovered from Feature 107. It measures 24 mm by 46 mm and is 39 mm tall, with a 23 mm wide, riveted loop for a strap.

Miscellaneous Hardware Activity Group

The 14 artifacts within the Miscellaneous Hardware group include non-architectural fasteners, hinges, and hasps. Most frequent among these were five plain, domed brass tacks with squared shanks (Figure 6.42c). These tacks ranged from 10.2 mm to 11.9 mm in diameter and were recovered from metal detecting (n=1), plow zone (n=1), Feature 33 (n=1), and Feature 170 (n=2). Brass tacks were used in a variety of ways during the late eighteenth century, including as fasteners for furniture upholstery and as decorative elements on bridles, trunks, and other articles of wood and leather. Two small, wrought iron tacks were recovered from Features 55 and 140 (Figure 6.42d). Iron and brass tacks have been found at Nassaw-Weyapee, Charraw Town, Old Town, and New Town. Other non-architectural fasteners found at Ayers Town include two probable wrought iron rivets found during metal detecting and a very small (5 mm in length) brass wire staple from Feature 123 (Figure 6.42e).



Figure 6.41. Horse-related artifacts from Ayers Town: harness buckles (a–d); harness bosses (e–g); rein guide (h); iron strap tip (i); snaffle bit (j); singletree clip (k); horseshoe nails (l–m); horseshoe branch (n); stirrup fragment (o); and saddle brace (p).



Figure 6.42. Miscellaneous hardware from Ayers Town: iron hasps (a, f); iron hinge (b); brass tacks (c); iron tack (d); and iron rivets (e).

Excavation of Zone F in Feature 69 produced an iron T hinge, a large wrought iron strap hasp, and a large wrought iron rivet. All of these artifacts may be hardware from a single, large storage container such as a trunk or chest (Figure 6.42a–b). The vertical side of the hinge measures 120 mm tall by 24 mm wide, while the opposing strap is 45 mm wide and of indeterminate length. It was attached with iron rivets, one of which is still secured to the hinge. The overall dimensions of the hasp are approximately16 cm long by 4.6 cm wide, and it is composed of an iron strap that measures 12 mm wide by 4 mm thick. At one end is a hole approximately 8 mm in diameter; at the other end is a slot that measures 50 mm long by 16 mm wide. It is too corroded to determine method of construction. Hanson and Hsu (1975:62) illustrate a similar hasp from British Fort Stanwix (c. 1758–1781) in central New York. The large rivet measures 24 mm in diameter and 22 mm long, and it may have served to attach the hasp to the trunk.

A second possible wrought iron hasp was recovered during metal detecting (Figure 6.42f). It was fashioned from an iron rod and is much smaller than the Feature 69 specimen.

Metal Resource Group

This group contains artifacts made of brass (or copper alloy), silver, pewter, lead, and iron that represent metal stock, byproducts of metal working, or unidentifiable fragments of finished metal goods. Metal working likely was limited to the rudimentary casting of soft metals, such as lead and scrap pewter, for bullets; the cutting and trimming of brass, tin, and silver sheet to create jewelry and ornaments; and the fashioning of iron tools by cold hammering and bending. No evidence of blacksmithing was found, and a later visitor to the Catawba community at New Town observed that "the only trade among them is a stone [?] smith. They have no shoemaker or Blacksmiths" (Jones 1815).

Brass

Fourteen pieces of brass were recovered and include: four sheet fragments (0.7–1.0 mm thick) from metal detecting that may be pieces of recycled kettles; seven very small, thin pieces of sheet brass from Features 5, 55, 69, 108, and 162; and three small fragments of brass wire from Features 106, 170, and 187.

Silver

Seventeen small strips of cut silver sheet and three fragments of silver wire were recovered from waterscreened feature fill. Most of the cut strips are byproducts of trimming silver sheet, presumably to make ornaments, and are curled or twisted. These specimens were recovered from Features 4, 5, 27, 55, 69, 74, 89, 107, 108, 123, and 142.

Pewter

Eight unidentifiable fragments of pewter were recovered from metal detecting (n=1), plow zone excavation (n=1), and Features 5 (n=1), 55 (n=3), and 163 (n=2). The specimens from Features 5 and 55 are melted lumps and likely represent byproducts from recastings; the remainder may be fragments of spoons or other pewter utensils. Small quantities of unidentifiable pewter also were recovered at Old Town and New Town, and the recovery of a molded but untrimmed pewter button at New Town's Locus 2 suggests that Catawbas there were engaged in casting pewter buttons and perhaps other items.

Lead

Fifty-one miscellaneous pieces of lead or lead alloy were recovered in addition to the 42 lead balls and lead shot discussed earlier under the Arms Group. These fall into the following categories: lead bar (n=1), lead sheet (n=20), lead sprue (n=20), and chewed lead lump (n=10) (Figure 6.43). Most of the lead at Ayers Town probably was acquired as bars, to be cast into ammunition or flattened into lead sheet and used to secure gunflints within the jaws of a gun cock. Among the sheet lead specimens, six are flattened pieces with creases that indicate they were once rolled, three are rolled sheets, and 11 are strips cut from the edges of lead sheet. Polhemus (1978:206), discussing the presence of sheet lead at the Federal-period Tellico



Figure 6.43. Miscellaneous lead from Ayers Town: lead bar (a); flattened lead sheet (b-c); rolled lead sheet (d, f); chewed lead (e, g); and lead-alloy lumps (h-i).

Blockhouse in southeast Tennessee, notes that "Sheet lead [was] produced by hammering a lead ball flat.... The resulting disk of lead was trimmed on two edges producing a strip with which a gun flint could be securely gripped in the jaws of a firearm. One example was still within the jaws of a musket cock or hammer wrapped around the flint."

The one lead bar fragment in the sample, recovered from Feature 5, has a triangular crosssection and is melted at one end. This specimen, along with the lead sprue (the residual lead from casting), indicate that lead casting was performed onsite though no bullet molds were recovered. Most of the 20 sprue fragments are small (i.e., <10 mm in diameter); however, Feature 72 produced five large sprue or melted lead-alloy lumps that range from 23 mm to 47 mm in diameter.

Ten specimens are lumps of chewed lead that exhibit teeth marks. Four lead balls, discussed under Ammunition, also had been chewed, and together these indicate a commonplace, if unhealthy, practice among Catawbas. Several pieces of chewed lead also were recovered from Old Town and New Town.

Lead was recovered from metal detecting (n=9), plow zone excavation (n=2), and Features 3 (n=2), 4 (n=1), 5 (n=2), 33 (n=2), 55 (n=2), 67 (n=1), 69 (n=5), 72 (n=6), 107 (n=1), 108 (n=6), 122 (n=1), 123 (n=7), 162 (n=3), and 190 (n=1).

Iron

The 81 artifacts in this category include 51 specimens classified as iron bar (n=8), iron rod (n=14), iron sheet (n=8), iron strap (n=8), and iron wire (n=14), and also include 29 unidentifiable iron fragments. Thirty-two of these came from metal detecting or plow zone excavation; the remainder (n=48) were widely distributed among 16 different features. Almost

half of the iron in this category from feature contexts came from Feature 55 (n=7) and Feature 123 (n=16). Although many artifacts in this category likely are pieces broken from finished goods, some may represent raw iron stock.

Pottery Production Activity Group

Travelers' accounts in the early nineteenth century indicate that pottery-making was an important activity within Catawba towns (Jones 1815). Beyond the many thousands of potsherds found at Ayers Town, representing ceramic consumption by Catawba villagers as well as production failures, more direct evidence of pottery production also was found in several excavated features. These fall into three categories: (1) the raw materials (i.e., unfired potter's clay and red sealing wax) from which jars, bowls, and plates were created and decorated; (2) the tools (i.e., shell scrapers and burnishing stones) that were used to manufacture those vessels; and (3) incidental waste (i.e., fired clay coil segments and amorphous pieces of hand-modeled and fired potter's clay) resulting from the production of pottery.

Potter's Clay

Sixty-five samples of unfired potter's clay were recovered from fill contexts within 29 separate features. During excavation, these clays were easily recognizable by their color and texture, and were distinctly different from the friable red clay or clay loam that comprises subsoil at the site. The recovered clay samples ranged in color from gray, blue/gray, and tan to red. While most of these features contained only small lumps of clay, the following five features, all sub-floor storage facilities, contained large masses of clay: Feature 3 (1,700 g), Feature 106 (1,380 g), Feature 107 (6,300 g), Feature 155 (770 g), and Feature 170 (750 g). This pattern was not unexpected, as several cellar pits and smaller circular pits at Old Town yielded substantial quantities of gray, blue/gray, and tan clay. Within one cellar pit (Feature 2) at Old Town, pieces of unfired vessel walls were observed among other globular clay lumps. The circular pits at Old Town, all situated adjacent to larger cellars, are thought to be facilities used to store or cure potter's clay.

In a recent elemental study, Rosanna Crow (2011) used x-ray diffraction to characterize and compare potter's clay and potsherds from Ayers Town and Old Town. She concluded that the unfired clays found at both of these sites have elemental properties that are consistent with some of the potsherds from those sites. She also found that, collectively, the clays from Ayers Town and Old Town represent four different sources, and two of these sources were shared by potters from both sites. A comparison with clay samples obtained from Nisbet Bottoms, a clay source located midway between the sites and where modern Catawba potters currently obtain their clay, indicated that this may be the location of one of the shared clay sources.

Red Sealing Wax

The use of red sealing wax for ceramic decoration is a distinctive characteristic of Catawbamade pottery in the post-Revolutionary era (Riggs et al. 2006). At Old Town and New Town, where pottery decorated in this manner has been recovered, both fragments and occasional lumps of red sealing wax also have been found. And, the entry for one pound of sealing wax in Joseph





Kershaw's (1784) list of goods to be distributed to the Catawbas almost certainly refers to the material Catawba potters used to decorate their wares (Table 6.1). Therefore, it is not surprising that 15 small fragments of red sealing wax was recovered from the waterscreened fill of four sub-floor storage facilities (i.e., Features 55, 69, 123, and 162) at Ayers Town (Figure 6.44).

Shell Scrapers

Three freshwater mussel shell scrapers and one fragment of a shell scraper were recovered from Features 91, 92, and 123 (Figure 6.45). All have heavily ground edges, which allowed their identification as scrapers. They are interpreted as potter's tools, used for vessel smoothing, thinning, and shaping. Harrington (1908:402–403, Plate XXII) describes the use of mussel shell scrapers by Catawba potter Rachel Brown in 1908 and illustrates two shell scrapers along with other potter's tools made of gourd, bone, and cane. Harrington considered the use of shell scrapers to be of native origin, and, in fact, they have been recovered archaeologically at other sites in piedmont North Carolina that likely were occupied by groups ancestral to the late eighteenth-century Catawba (Ward and Davis 1993:49, 104, 207, 369).

Burnishing Stones

Catawba potters created smoothed, often lustrous surfaces on their pottery by rubbing the vessel surface with a polishing or burnishing stone. Harrington (1908:404) described the process as follows:

When a batch of vessels was dry, John Brown again took a hand in the work and scraped the surface of each one very carefully with iron and cane knives, reducing all irregularities and making the walls thinner. Much of the symmetry and attractiveness of the finished product depends upon the care with which this work is done. Frequently musselshells are used for scraping. When he had finished a vessel, John handed it to his daughter, who moistened it with a damp rag and rubbed it carefully all over with the



Figure 6.45. Freshwater mussel shell scrapers from Ayers Town, showing outside and inside surfaces with ground scraper edge to the bottom.

waterworn pebble kept for that purpose, removing all trace of scraping. A fine polished surface may be produced, they told me, by patient use of this primitive tool.

The general scarcity of burnishing stones in the archaeological record suggests that they were highly curated by potters. This practice is consistent with observations made by Vladimir Fewkes (1944:87), who noted in the early 1940s that, among Catawba potters, "...polishing pebbles are regarded as somewhat of a precious possession and are retained in a family often for several generations." He also noted that "smoothing pebbles, with unmistakable facets documenting their original use, are known from sites around the Catawba reservation." Fewkes' comments speak both to the highly curated nature of burnishing stones and to their apparent abundance, likely a direct result of the intensity by which Catawba potters engaged in the craft production and marketing of their wares during the late eighteenth, nineteenth, and twentieth centuries.

Five examples of burnishing stones and probable burnishing stones were found at Ayers Town; all came from feature contexts interpreted as storage facilities (Figure 6.46). The clearest example of a faceted burnisher came from the basal deposits of Feature 140. It is a rounded, fine-grained, quartzite pebble with broad, polished facets. It measures 43 mm by 34 mm by 32 mm. The remaining specimens, from Feature 107 (n=1) and 123 (n=3), are waterworn pebbles or a pebble fragment that have highly polished surfaces or edges unlikely to have been created naturally. Two are made of quartzite, while the others are fine-grained, angular, diorite pebbles with polished surfaces and edges.

Fired Clay Segments and Lumps

Thirty-two pieces of fired clay were recovered that appear to represent the process of pottery manufacture. They occur in two primary forms — rolled cylindrical segments and amorphous lumps that have been manipulated by squeezing or pinching — and are interpreted as pieces of excess potter's clay that became fired, either intentionally or unintentionally. Some pieces may



Figure 6.46. Burnishing stones from Ayers Town. The specimen at left has burnishing facets on the left and top surfaces.



Figure 6.47. Fired clay segments and lumps from Ayers Town.

even be the products of children playing or learning the pottery-making craft. These artifacts were widely distributed among 12 features, including both storage facilities and borrow pits; however, about one-third (n=11) came from a single storage facility, Feature 123 (Figure 6.47).

Artifacts of Indeterminate Function

Worked Stone

Twenty stone objects of indeterminate function were recovered from 11 excavated features. Most of these show clear evidence of modification by chipping, grinding, or polishing, and comprise three classes of objects: polished or smoothed cobbles or pebbles, chipped disks, and large tabular rocks. All are thought to be attributable to the Federal period Catawba occupation of the site. Eleven of these are smoothed or polished alluvial pebbles and were recovered from Features 33, 69, 107, 116, 123, 155, 162, and 170. None appear to have been used as pot burnishers. Large stone disks were recovered from Features 123, 140, and 191 (Figure 6.48). These range from 6–11 cm in diameter and 11–14 mm in thickness, are made of schist, and were formed by rough chipping and grinding. Finally, six large, rectangular, tabular stones were recovered from Features 69, 89, 107, 140, and 155. Most have been shaped by chipping along one or more margins and are made of schist. The specimens from Features 140 and 155 have a concave surface and may have been used as grinding or milling stones; others display surface that presumably were smoothed through use. Large chipped disks and tabular rocks are not unique to Ayers Town. Several were recovered from multiple features at Old Town (i.e., Features 1, 7, 11, 13, 16, and 18; RLA specimen catalog, accession number 2499).

The most unusual of these artifacts was recovered from Zone C in Feature 69. It is a tabular rock that measures 15 cm wide by 18 cm long by 3 cm thick, and on one surface is what appears to be an engraved depiction of the national flag of Scotland with the Saltire, or the Saint Andrew Cross (Figure 6.48). This engraving measures 53 mm wide by 28 mm tall. Catawba warriors who earlier had fought for the British during the Quebec campaign of 1759, alongside highland Scottish regiments, would have been familiar with this flag. Another hint of a Catawba-Scottish connection was found during 2008 investigations at the 1750s site of Nassaw-Weyapee. Feature 48, an abandoned storage pit at Weyapee, yielded the broken blade of a Scottish short sword or dirk, perhaps brought back as a war souvenir in the fall of 1759.

Finally, a large (45 mm diameter) chunk of unworked hematite was recovered from Feature 108, and a small fragment of unworked mica was found in Feature 123.

Clay Artifacts

Two clay artifacts of indeterminate function were recovered. An unfired clay disk, or plug, measuring 20 mm in diameter and 8 mm thick was found in Feature 69. Feature 123 yielded a smudged and polished "sherd" or fragment of an object that appears to be triangular or trapezoidal in shape with flat surfaces and squared edges. It tapers from 8.9 mm to 7.6 mm in thickness, is 21 mm wide, and is painted on all finished surfaces with red sealing wax. It clearly is not a ceramic vessel fragment, but it also does not appear to be part of a smoking pipe.

Brass Artifacts

Four brass artifacts of indeterminate function were found. Two of these, recovered during metal detector survey and from Feature 163, are identical wire rings measuring 1.4 mm in thickness and 14.5 mm in diameter. The other artifacts are pieces of sheet brass in contact with



Figure 6.48. Chipped disks (left) and engraved tabular rock (bottom right) from Ayers Town. A closeup view of the engraving is shown at top, right.

preserved organic (probably cotton or flax) fibers. One of these was found in Feature 55 and consists of short fibers sandwiched between two small brass fragments. The other artifact is a woven, wick-like cord (2 mm diameter and 20 mm long) that apparently was encased in a thin, rolled brass tube and came from the base of Feature 139. Only a thin strip of the brass tube remains. This artifact may be a lace tip or aglet.

Iron Artifacts

Eleven iron artifacts were recovered whose functions are either indeterminate or ambiguous. Artifacts within this category and found during the metal detector survey include: a piece of riveted iron strap; six wrought iron objects; a pointed iron rod that may be a flax wheel spindle; and a hollow, six-sided iron rod that measures 8 mm in diameter and 62 mm long. The two remaining artifacts are an unidentifiable iron lump from Feature 33 and a small iron pellet from Feature 69.

Wood Artifacts

Two wooden objects were observed during feature excavation. Zone 1 fill in the north half of Feature 3 contained part of a wooden plank that varied from 10-30 mm in thickness. Because of its extremely poor state of preservation, only fragments of it were recovered. Feature 4, located adjacent to Feature 3, contained the only other artifact made of wood or another organic substance. It is a small, warped disk that measures 28 mm in diameter, varies from 2.7-5.0 mm in thickness, and appears to have been burned.

Chapter 7 SUBSISTENCE REMAINS

This chapter examines the archaeobotanical and archaeofaunal remains from Ayers Town. These remains derive from both cultural and natural processes, and reflect the subsistence and firewood-selection practices of the site's inhabitants as well as the naturally-occurring plant and animal species that inhabited the site environs. Carbonized botanical remains were ubiquitous within sub-plow zone feature contexts and were recovered by two methods. More than 1,800 liters of feature fill, comprising 185 discrete contexts from 87 separate features, were processed by flotation. All fill from organically rich features and deposits, such as smudge pits and carbon-rich strata within storage pits, was processed in this manner. Flotation resulted in the recovery of approximately 28 kg of carbonized and uncarbonized plant remains. The remaining feature fill was processed by waterscreening through 1/16-inch mesh. This resulted in the recovery of 166 samples from 55 features, totaling about 4.5 kg of charcoal. Because of the overall sample size of the archaeobotanical remains, it was not feasible to analyze all recovered specimens; instead, the analysis was restricted to materials recovered by flotation and focused on contexts judged to have the best potential for providing information about subsistence practices within individual households.

Archaeofaunal remains were less ubiquitous than archaeobotanical remains at Ayers Town. Two hundred thirty-seven discrete archaeological contexts, representing 51 features and 14 excavation units, produced about 6.8 kg of animal bone and freshwater mussel shell. Most features yielded less than 10 specimens each; however, four features — Features 91, 123, 140, and 190 — contained substantial quantities of bone. With the exception of the few samples found in the plow zone, all animal bones and mussel shell not individually excavated and bagged during feature excavation were recovered by waterscreening or flotation. The analysis of archaeofaunal remains from Ayers Town considered all recovered specimens.

The analyzed archaeobotanical sample from Ayers Town includes both carbonized and weathered (but uncarbonized) plant remains. They indicate a crop assemblage that consisted predominantly of maize with much smaller amounts of beans, squash, and an indeterminate cereal grain. A comparison of the Ayers Town archaeobotanical assemblage with assemblages from the earlier towns of Nassaw-Weyapee and Charraw Town suggests that Ayers Town's inhabitants may have relied more on parched maize, subsequently ground into meal, than on boiled hominy; or they may have processed corn in larger workgroups than during earlier decades. Hickory nuts and acorns are the only arboreal nut crops represented in the sample, and utilized fleshy fruits include peach, maypop, grape, persimmon, elderberry, mulberry, bramble, and possible sumac. Peach, an Old World domesticate, was the most common fleshy fruit. The recovery of single pokeweed and spurge seeds suggests the possible use of these two plants for greens, and the presence of jimsonweed, nightshade, tobacco, coffee, and morning glory seeds indicate their use as medicinal plants. Numerous weathered but uncarbonized seeds were recovered from feature contexts; those not represented in the sample of carbonized remains include groundcherry, blueberry, purslane, chenopod, and sedge.

The analysis of archaeofaunal remains identified a wide array of wild species, indicating an economic base focused upon both riverine and terrestrial resources. This is consistent with patterns observed in the archaeofaunal assemblages recovered from the roughly contemporary Catawba settlement of Old Town and slightly later settlement of New Town. A minimum of 12 fish species are represented, with the remains of bullhead catfish being the most numerous. Other fishes include gars, minnows, suckers, catfishes, pickerels, sunfishes, and basses. Freshwater mussels also were collected from the nearby Catawba River. Both toad and frog bones were recovered, but these may represent animals that simply were trapped in deep storage pits. Remains of Eastern Mud Turtle, Slider/Cooter, and Eastern Box Turtle were recovered, and these likely were intentionally collected by the site's inhabitants. At least seven species of birds are represented, with Wild Turkey and Domestic Chicken dominating the assemblage. Other bird species identified include Mallard, Mourning Dove, Common Flicker, Pileated Woodpecker, and Blue Jay. Bones of both wild and domesticated mammals were recovered, with White-tailed Deer being the predominant species represented. Squirrel, Opossum, Cottontail, Raccoon, and Black Bear remains also were found. Domesticated mammals found at Ayers Town include Pig, Cattle, Horse, and Dog. In contrast to Old Town and New Town assemblages which are dominated by domesticated mammalian species, the Avers Town assemblage indicates a much greater reliance on hunting White-tailed Deer.

More detailed discussions of the analyses of archaeobotanical and archaeofaunal remains from Ayers Town are presented below.

Archaeobotanical Analysis by Mary Elizabeth Fitts

The analysis of macrobotanical remains from Ayers Town focused on samples associated with the Federal period Catawba habitation of the site. The goals of botanical analysis were threefold: (1) to identify the plants present in the Ayers Town assemblages; (2) to determine whether any variation existed between the identified residential complexes with regard to the distribution of macrobotanical remains; and (3) to compare the late eighteenth-century Ayers Town botanical assemblages with those from the earlier Catawba sites of Nassaw-Weyapee (38YK434) and Charraw Town (38YK17), as well as to contemporaneous assemblages from other Indian nations in the American Southeast. The results of these comparisons show the Ayers Town assemblages, particularly contexts in the southern portion of the site, to be relatively enriched in maize kernel fragments. This distinguishes these contexts not only from other portions of the site but also from Nassaw-Weyapee and Charraw Town. In addition, little evidence for the farming of cool-season grass crops, either indigenous or European, is present at Catawba sites. This suggests there were differences in agricultural practice between the Catawba and contemporary groups such as the Creek, whose settlements have yielded unambiguous evidence for the cultivation of native grasses and European cereals in the eighteenth century.

Environment and Archives

Ayers Town is located approximately 400 meters (0.2 mile) southwest of the Catawba River on the eastern edge of the second terrace, immediately adjacent to a backswamp on the sandy T-

1 levee that drains into Ferry Branch. Situated on highly acidic clay loam, this area now supports a bottomland forest of chestnut oak, water oak, yellow poplar, sweetgum, water oak, eastern cottonwood, green ash, blackgum, red maple, willow oak, and American sycamore. Results of botanical analysis indicate the Catawba managed this area by clearing fields, simultaneously allowing for inter-cropped agriculture and the development of productive edge habitats. The older terraces west of the site likely supported mesic mixed hardwood or oakhickory forests. In settling on the second terrace, the inhabitants of Ayers Town maintained proximity to the Catawba River while living on an ecotone that provided ready access to both upland and bottomland resources.

The diary of Lady Henrietta Liston, who visited a Catawba town thought to be 38YK534 in 1797, provides glimpses of the surrounding landscape as well as Catawba foodways. Liston (1797:25) notes that the town she visited was "in a hollow near the River." She also describes the meals she saw cooking and Catawba agriculture:

On the Colonels fire stood a pot, & there was a hoecake on the hearth. I asked what was in the Pot, he said Deers flesh for breakfast, but did not offer us any. In another Hut we found Wild Turkey preparing in the same manner. The only cultivation we saw was a small quantity of Indian corn in the vicinity of the Town, cultivated I am told, by the Women, & this is rather for traveling with (when an Indian sets out on a journey the flour of Indian Corn in a bag & pot to boil it in is all his provision) than to use as bread. [Liston 1797:28]

In this somewhat contradictory passage Liston notes a hoecake cooking on the hearth and identifies maize as the only crop she saw, but asserts it was ground into flour and boiled instead of being used to make bread. She may have understood, with or without cause, the hoecake to be made of wheat flour. It is also possible some nuance was lost in the process of translation. Unfortunately for Liston and for us, she did not get a taste of breakfast. However, her account, besides providing evidence for maize processing into flour, indicates the continued role of Catawba women as farmers, following a long-standing gendered division of labor in southeastern American Indian societies (Hudson 1976; Thomas 2001).

The first macrobotanical study to be done in the region was conducted by Jamie Civitello (2005) under the mentorship of Gail Wagner at the University of South Carolina. Civitello examined samples from Spratt's Bottom (38YK3), a multi-component site on the east (north) bank of the Catawba River near Fort Mill, South Carolina. Two calibrated radiocarbon dates bracket a prehistoric occupation of the site between AD 920 and 1276, while a preponderance of 5/64 inch-bore kaolin pipe stems indicate an historic Catawba component that lasted from about 1720 to 1750 (Civitello 2005:47). The historic component may be the product of an early iteration of the Nassaw community, which subsequently moved upriver where they were depicted on a 1756 map (Merrell 1989:163). The goal of Civitello's research was to examine anthropogenic landscape change. She found that an increase in maize ubiquity from the prehistoric to the historic component (25% to 71%) coincided with an increase in the use of pine for firewood (Civitello 2005:98). The prehistoric wood assemblage consisted of 71% oak, 12% southern pine, and 6% hickory, while the historic component contained 65% pine, 27% oak, and 2% hickory. This pattern suggests the historic inhabitants of Spratt's Bottom had placed more land under cultivation than their predecessors and were re-using old fields. A corollary of this increased emphasis on agriculture was a higher nutshell-to-wood ratio, along with a more diverse nutshell assemblage, from prehistoric contexts (Civitello 2005:98-99).

	Samples	Collected	Samples Sorted		
Context	N	Vol. (L)	N	Vol. (L)	
Borrow pit	31	286.5	0	_	
Cellar/Storage pit	95	1146.9	39	328.5	
Smudge pit	52	273.8	0	_	
Other	7	80.4	0	_	
Total	185	1803.6	39	328.5	

Table 7.1. Summary of Ayers Town Flotation Samples by Context.

Methods of Recovery and Analysis

Sampling procedures utilized during fieldwork at Ayers Town varied by context. All smudge pits were floated in their entirety. Flotation samples from other feature contexts were collected at the excavators' discretion. With the exception of postholes standardized 10-liter samples were collected from most zones of feature fill, but in cases of high charcoal density entire contexts were processed by flotation. Flotation was conducted using a SMAP-type machine that collected heavy fractions in 0.01-in² (0.25-mm²) mesh and light fractions in approximately 125µ chiffon fabric. Poppy seed recovery rates of this system have not been established (Wagner 1982), but the identification of tobacco seeds in Ayers Town assemblages may be a positive measure of its effectiveness. A total of 1,803.6 liters of feature fill were processed from 185 discrete contexts (Table 7.1). Thirty-one of these samples were from borrow pits, 95 were from cellar and storage pits, 52 were from smudge pits, and seven were from other contexts such as refuse-filled stump holes and possible Archaic or Woodland features. The analysis of Ayers Town macrobotanical materials presented here is based on a subsample of 39 cellar and storage pit fills from 13 different features. This represents 21% of the total number of flotation samples collected from Avers Town and 41% of the cellar and storage pit samples. Samples were chosen for analysis according to feature location, with the goal of sampling across the site to enable an assessment of intra-site variation in the distribution of plant remains.

Analysis of flotation samples followed procedures described by Pearsall (2000). This process involved separating samples into size-graded fractions using geological sieves, which were then examined under a low-power stereoscopic microscope. The 2-mm fraction was completely sorted and the smaller fractions scanned for seeds, nutshell, and other identifiable plant materials. Seeds were identified with reference to the type collection of southeastern botanical materials in Dr. Margaret Scarry's paleoethnobotany lab at the Research Laboratories of Archaeology, University of North Carolina, Chapel Hill. Both counts and weights were recorded for all food-plant fragments and seeds. Since there is variation among archaeobotanists with regard to the recording of nutshell, maize kernel fragments, and other materials less than 2 mm in size, these items were tabulated separately to enable comparability with other studies (Appendix D). While it is common practice to interpret all non-carbonized seeds in moist, acidic depositional contexts of the Southeast as modern contamination, multiple samples from Avers Town were found to contain weathered seeds. These often consisted of the seed coats of fruits such as maypop, elderberry, and bramble, although a large number of weathered tobacco seeds (n=114) were also identified. Since partially carbonized specimens of wood and peach endocarp fragments were present in the collection, it is posited that these uncarbonized weathered seeds

are associated with the eighteenth-century Catawba occupation of Ayers Town. They have been tabulated separately from the carbonized materials.

Standardization by volume is necessary for quantitative comparison between samples in order to demonstrate that any differences are not due simply to variation in the amount of soil processed. The volume of each sample was measured in a calibrated bucket prior to flotation. While the accuracy and precision of volume measurements vary with soil type (Wright 2005), most of the Ayers Town and other eighteenth-century Catawba feature fills consist of sandy clay loam, so the effects of such variation should be limited. Feature contexts that were floated in their entirety were sub-sampled with a riffle splitter and the fraction examined recorded. To enable quantitative analysis, the same fractional value was applied to the total volume of soil to estimate the volume of the sub-sample. Ubiquity measures, or the total number of samples in which an item was found, were also calculated.

Results

The Ayers Town macrobotanical remains have been grouped into analytical categories that reflect their origin and likely uses: crops, nuts, fleshy fruits, greens, medicine, and small grains/weeds. While these categories are useful for the purposes of presentation, it should be noted that a single plant could have multiple uses, just like other artifacts. After processing, maize kernels were food while maize cobs became fuel, with the same being true for nut meat and nut shell. Fleshy fruits such as elderberry under certain circumstances were also medicines. Thus, while the categories have economic significance with regard to the means and primary purpose of extraction, the distribution of these materials at a site may have as much or more to do with their secondary uses. This is particularly well-illustrated in the case of maize cob smudge pits.

The crop assemblage from Ayers Town consists of maize, beans, squash, and a single indeterminate cereal grain (Table 7.2). Maize kernels, cupules, and cob row sections were the most frequently encountered cultigens. Kernels were found in 54% of the samples, cupules in 72% of the samples, and cob row sections in 36% of the samples. Taken together, some part of the maize plant was found in 35 samples, giving maize 90% ubiquity. Eight fragments of beans and probable beans were recovered from 18% of the samples, while a single piece of squash rind was found in Zone 1 of Feature 158. A partial seed from Feature 140, Zone 5, resembles a European cereal grain, but due to its fragmentary nature could not be identified as to species. The high ubiquity of maize kernels and cupules in Ayers Town feature fill positively aligns with Liston's (1797:28) comment that the "only cultivation" she saw in the vicinity of the town was "Indian Corn."

Hickory nuts and acorns were another staple food of Ayers Town residents (Table 7.3). Since hickory shell is more durable than acorn, it is typically better represented in archeological assemblages. Four pieces of possible hickory nut meat were identified in Feature 140, Zone 5, while acorn meat was recovered from Features 123 and 162. Hickory shell was found in 59% and acorn shell in 13% of Ayers Town samples. If tentative identifications are taken into account, the total ubiquity of hickory is 67% and acorn is 18%. The presence of only hickory and acorn in the Ayers Town nut assemblages may indicate a lack of early successional habitats

				Ubic	Ubiquity		
Plant	Portion	Count	Weight (g)	Count	Percent		
Maize	Kernel fragment	84	0.76	21	54		
cf. Maize	Kernel fragment	1	< 0.01	1	3		
Maize	Cob row	112	8.75	14	36		
Maize	Cupule fragment	1,888	10.91	28	72		
cf. Maize	Cupule fragment	1	< 0.01	1	3		
Total Maize				35	90		
Bean	Seed fragment	5	0.03	4	10		
cf. Bean	Seed fragment	3	0.02	3	8		
Total Bean	-			7	18		
Squash	Rind	1	0.01	1	3		
Indeterminate							
cereal	Seed fragment	1	< 0.01	1	3		

Table 7.2. Carbonized Cultigens from Ayers Town (>1.4 mm).

Table 7.3. Carbonized Nut Remains from Ayers Town (>1.4 mm).

				Ubiq	uity
Plant	Portion	Count	Weight (g)	Count	Percent
cf. Hickory	Nut meat	4	0.03	1	3
Hickory	Nut shell	138	3.50	23	59
cf. Hickory	Nut shell	4	0.02	2	5
Total Hickory				26	67
Acorn	Nut meat	9	0.30	3	8
Acorn	Nut shell	60	0.19	5	13
Total Acorn				7	18

in the area, as might contain hazel, but is perhaps more likely evidence for targeted acquisition of preferred resources. The ratio of nutshell to wood weight at Ayers Town is 1 to 37.9 grams, and the ratio of nutshell to maize cupule weight is 1 to 5.3 grams.

The assemblage of carbonized fleshy fruits consists of peach, maypop, grape, persimmon, elderberry, mulberry, bramble, and possible sumac (Table 7.4). The most common fruit remains were peach endocarp fragments, which constituted 72% of the fruit assemblage. They were found in 31% of the examined contexts. Eleven elderberry seeds were present in Zones 3 and 4 of Feature 5, which also yielded uncarbonized specimens. Maypop was present in more samples than elderberry (four, or 10% ubiquity) but only six fragments were identified. Grape and persimmon are represented by three specimens each, from three contexts in the case of grape and two in the case of persimmon. Mulberry was present in Features 4 and 27, and the single carbonized bramble seed in the collection was found in a sample from Feature 5, Zone 3. Feature 140, Zone 6, contained a possible sumac seed. Although potentially eaten as a fleshy fruit, sumac has a variety of documented uses. The Cherokee used different parts of the plant to treat discomforts ranging from dysentery to sunburn, while both the Creek and Delaware would smoke the leaves with tobacco to relieve respiratory problems (Moerman 1986:402–406).

				Ubi	quity
Plant	Portion	Count	Weight (g)	Count	Percent
Peach*	Pit fragment	74	1.04	12	31
cf. Peach	Pit fragment	2	0.02	2	5
Total Peach	C			12	31
Маурор	Seed fragment	6	0.01	4	10
Grape	Seed	2	0.01	2	5
Grape	Seed fragment	1	0.01	1	3
Total Grape	-			3	8
Persimmon	Seed	1	0.06	1	3
Persimmon	Seed fragment	2	0.02	2	5
Total Persimmon	-			2	5
Elderberry	Seed	11	< 0.01	2	5
Mulberry	Seed	2	< 0.01	2	5
Bramble	Seed	1	< 0.01	1	3
cf. Sumac	Seed	1	< 0.01	1	

Table 7.4. Carbonized Fleshy Fruit Seeds from Ayers Town.

Two seeds from plants commonly used as greens—pokeweed and spurge—are present in the Ayers Town collection. A carbonized pokeweed seed fragment was identified in a sample from Feature 123, and Feature 33 yielded a single spurge seed. In addition to being consumed as food, both plants were likely used for medicinal purposes. Their most common application was for dermatological problems. Pokeweed, in particular, has been used by the Cherokee, Delaware, Mohegan, and Rappahannock to treat skin ulcers, swelling, poison ivy, and warts (Moerman 1986:184, 337–338). The Cherokee and Delaware also identified it as "blood medicine," with the cooked greens and sometimes roots being consumed to build, stimulate, and purify blood.

The Ayers Town samples contain seeds from four plants used primarily as medicines, broadly defined as non-food substances used to achieve a state of well-being: jimsonweed, tobacco, morning glory, and possible coffee (Table 7.5). Jimsonweed (Datura stramonium) is the most ubiquitous, occurring in 21% of the examined samples. Most of the seeds (114, or 87%) were present in Feature 4 fill. As jimsonweed produces seed pods, and a single plant can produce around 20,000 seeds in a season (Levitt and Lovett 1984), it is possible this seemingly high number of seeds reflects the presence of a single carbonized pod. A seed and seed fragment from Feature 140 that could be classified only to the nightshade family Solanaceae may also be Datura seeds, since nine unambiguous examples were identified in this feature. Plants of the genus Datura contain the alkaloids atropine and scopolamine (Friedman and Levin 1989), and there are ethnographic accounts of Indians in the American Southwest using Datura species for its hallucinogenic properties in ritual contexts (Moerman 1986:148-149). Similar references are lacking in the Southeast, where *Datura* leaves were used primarily as a dermatological aid: the Cherokee used the leaves to treat boils, and the Delaware, Mohegan, and Rappahannock applied crushed leaves to wounds. Jimsonweed was also used to treat respiratory problems such as asthma, pneumonia, and sore throats among the Cherokee and Rappahannock (Moerman 1986:149–150). Datura seeds have been recovered from three Cherokee contexts dating to the 1830s (Cuthrell 2005). Its use continued into the twentieth century, as suggested by a
				Ubiq	luity
Plant	Portion	Count	Weight (g)	Count	Percent
Greens					
Pokeweed	Seed fragment	1	< 0.01	1	3
Spurge	Seed	1	< 0.01	1	3
Medicine					
Jimsonweed	Seed	47	0.11	6	15
Jimsonweed	Seed fragment	84	0.03	5	13
Total Jimsonweed	-			8	21
Nightshade family	Seed	1	< 0.01	1	3
Nightshade family	Seed fragment	1	< 0.01	1	3
Total Nightshade	-			2	5
Tobacco	Seed	4	< 0.01	2	5
cf. Coffee	Seed	1	< 0.01	1	3
cf. Coffee	Seed fragment	1	< 0.01	1	3
Total cf. Coffee	-			2	5
Morning glory	Seed	1	0.01	1	3
Small Grain/Weed					
Indeterminate Grass	Seed	3	< 0.01	2	5
Weedy legume	Seed	3	< 0.01	3	8
Composite	Seed	1	< 0.01	1	3

Table 7.5. Representation at Ayers Town of Small Grain/Weed Seeds and Carbonized Seeds of Plants Used for Greens and Medicine.

photograph of a Cherokee cabin, taken in 1908, which shows a considerable stand of apparent jimsonweed growing adjacent to the house (Figure 7.1) (Harrington 2002[1909]).

Four carbonized tobacco seeds were identified in the bottom-most zones of Feature 107. The ubiquity of tobacco is greater when uncarbonized specimens are considered, as will be discussed below. Possible coffee bean fragments were recovered from Features 5 and 74. If these seeds are indeed coffee, they were likely the product of Caribbean coffee plantations. Documented use of coffee in historic period American Indian communities is scarce; one coffee seed was identified at the Welch site, the home of a post-removal *metis* Cherokee family (Cuthrell 2005). A single *Ipomoea sp.* seed, probably morning glory, was recovered from Zone 3 of Feature 185. Morning glory was used as cough medicine by the Cherokee and Iroquois, and as a diuretic among the Cherokee and Creek (Moerman 1986:235–236). The remaining carbonized seeds in the assemblage come from plants that may have been utilized for their small grains, although it is also possible these are incidental "weed" inclusions. These include grass seeds from Features 33 and 107, wild legume seeds from Features 4, 5, and 170, and a Composite seed from Feature 33.

The weathered seeds from Ayers Town come from plants grouped in the fleshy fruits, greens, medicine, and small grain/weed categories. These seeds were often damaged such that it was possible to observe that only the seed coat remained. Although these are not truly desiccated remains since they have been subject to decomposition in a humid environment, they are similar to desiccated assemblages in that they are more species rich than the carbonized assemblage (Van der Veen 2007). Among the fleshy fruits (Table 7.6) there are two species —



Figure 7.1. Stand of apparent *Datura stramonium* growing adjacent to an early twentieth-century Cherokee cabin (Harrington 2002[1909]).

groundcherry and blueberry — present in the weathered assemblage that are not present in the carbonized assemblage. In addition, the ubiquity of certain species is much greater for the weathered rather than for the carbonized assemblage. This is the case for bramble, of which weathered seeds were found in 44% of the samples but only one carbonized seed was identified overall. Similarly, the ubiquity of weathered elderberry seeds is 31% compared to 5% for carbonized seeds. It seems that the weathered seed coats of these smaller seeds were more likely to remain mostly intact and identifiable compared to larger seeds such as those of maypop and grape. While 41 weathered maypop seeds and seed fragments were identified compared to six carbonized seed fragments, they occurred in a similar number of samples (although not the same ones). Carbonized grape seeds were identified in three samples, and weathered examples were found in two.

Weathered seeds from plants used as greens included pokeweed, purslane, and spurge (Table 7.7). While only one fragment of carbonized pokeweed was found, 22 weathered examples were present in eight samples. Eleven weathered purslane seeds were found in five samples, and one weathered spurge seed was found in Zone 1 of Feature 107. The only medicinal plant represented in the weathered seed assemblage is tobacco. Most of these seeds

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			U	biquity	Carbonized	l Ubiquity
Plant	Portion	Count	Count	Percent	Count	Percent
Bramble	Seed	128	17	44	1	3
Bramble	Seed fragment	9	2	5	n/a	
Total Bramble	C C		17	44	1	3
Elderberry	Seed	178	11	28	2	5
Elderberry	Seed fragment	116	5	13	n/a	
Total Elderberry	-		12	31	2	5
Маурор	Seed	11	1	3	n/a	
Маурор	Seed fragment	30	5	13	4	10
Total Maypop	-		5	13	4	10
Groundcherry	Seed	4	3	8	n/a	
Grape	Seed	1	1	3	2	5
Grape	Seed fragment	9	2	5	1	3
Total Grape	-		2	5	3	8
Blueberry	Seed	1	1	3	n/a	

Table 7.6. Weathered Fleshy Fruit Seeds from Ayers Town.

Table 7.7. Weathered Seeds from Plants Used as Greens and Medicine, and Small Grain Seeds.

		U	Ubiquity		Carbonized Ubiquity	
Portion	Count	Count	Percent	Count	Percent	
Seed	10	6	15	n/a		
Seed fragment	12	5	13	1	3	
-		8	21	1	3	
Seed	11	5	13	n/a		
Seed	1	1	3	1	3	
Seed	114	4	10	2	5	
Seed	1	1	3	n/a		
Seed	1	1	3	n/a		
	Portion Seed Seed fragment Seed Seed Seed Seed Seed Seed	PortionCountSeed10Seed fragment12Seed11Seed1Seed114Seed1Seed1	PortionCountCountSeed106Seed fragment125Seed115Seed11Seed1144Seed11Seed11111111111111	PortionCountUbiquity CountPercentSeed10615Seed fragment12513Seed11513Seed113Seed114410Seed113Seed113Seed113	PortionCountCountUbiquity CountCarbonized CountSeed10615n/aSeed fragment125131Seed11513n/aSeed1131Seed112Seed1144102Seed113n/aSeed113n/aSeed113n/aSeed113n/aSeed113n/aSeed113n/a	

(94%) were found in the bottom-most zone of Feature 107. The small seed and weed assemblage consists of a chenopod seed from Feature 5 and a sedge seed from Feature 74. Neither species is present in the carbonized assemblage. Sedge leaves were often used as a raw material for the construction of baskets and matting.

Overall, the Ayers Town botanical assemblage consists of plants that thrive in agricultural fields, edge environments, and early successional communities. Hickory and acorn are the only examples of climax woodland species, and these are more productive in edge environments. Despite the proximity of Ayers Town to wetland settings, elderberry and sedge are the only two wetland species present in the assemblage. Although the fields observed by Liston were not

extensive, they clearly supported most of the botanical resources that were grown and gathered by Ayers Town residents.

Quantitative Analysis

Quantitative analysis of macrobotanical remains, like the analysis of other archaeological materials, requires careful attention to the processes that produced the assemblage. Since carbonization is the primary route to preservation for most plant materials, attention to factors resulting in carbonization distinguishes the analysis of plant remains from that of other materials. The likelihood of a particular plant material becoming carbonized depends mostly on whether or not it was intentionally burned as fuel or waste-fuel. In forested areas, wood is the most likely material to be carbonized, while in arid, pastoral contexts seed-containing dung is common fuel (Hastorf and Wright 1998). Cleansing of storage areas by fire may result in a broader spectrum of carbonized materials, as may accidents during food preparation or more tragic circumstances. In a very general sense, the amount and types of burning that take place in a given context contribute to the size and diversity of its botanical assemblage.

Calculating the density of carbonized material per unit soil enables an assessment of the amount of charcoal-producing activities represented therein. The total botanical weight density values from Ayers Town have a median value of 0.26 gram per liter, with 50% of the densities falling between 0.065 and 0.865 gram per liter. A box plot of these values shows that with the exception of six outliers, all of the total botanical weight densities are less than 2 grams per liter (Figure 7.2). Feature fills that contain unusually high densities of carbonized materials include Zone 3 of Feature 5, and Zones 4, 5, 6, 8, and 9 of Feature 123. In addition to identifying



Total Botanical Weight Density (g/L)

Figure 7.2. Boxplot of carbonized plant weight density values from analyzed Ayers Town flotation samples. The outlying values are from Feature 123 and Zone 3 of Feature 5.

outliers, this information can be used to investigate formation processes of the storage pits themselves. Cases in which charcoal density increases with zone depth likely represent an inverted profile, created when the soil dug out of a new storage pit was used to fill in an old pit. At Ayers Town such profiles are exhibited by Features 5, 107, and 185. Alternatively, the presence of relatively charcoal-free soil at the bottom of the pit, as in Features 27 and 140, may be the result of deliberate re-surfacing of the storage pit with "clean" soil to enable its re-use. Since the amount of charcoal on the surface of a habitation site could be expected to increase over time, pits containing only low-density fills may date to the earliest occupation of a site.

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Figure 7.3. Loess non-parametric regression of logged plant weight density as predicted by logged wood weight density. The dotted lines mark the root-mean-square residuals.

This may be the case for Feature 33 at Ayers Town, which has density values between 0.02 and 0.08 grams per liter. Features containing the cleanest fills — Features 5, 27, 33, and 140 — occur in Residential Complexes C and D, and generally in the western portion of the site, while fills with the highest charcoal density are present at the southern portion of the site in Features 5, 123, 140, 162, and 185. Residential Complex D is notable in containing features that contain fill with both the highest and lowest charcoal densities of the analyzed samples.

A loess non-parametric regression of logged plant weight density as predicted by logged wood weight density shows that in most cases the plant density of Ayers Town samples is predicted by their wood density (Figure 7.3). This suggests an absence of contexts produced by the burning of storage pit contents *in situ* or other unusual burning events among the analyzed samples. Unlike simple linear regression, loess regression solves not for a single line but calculates a series of solutions using neighborhood subsets of the data. When the root-mean-square residuals are plotted along with the regression line, it is easy to identify samples with residuals greater than the mean values. Samples with low plant density given the amount of wood present are Zones A and F of Feature 33 and Feature 162, Zone 1. Samples with high plant density given the amount of wood present are Zone E of Feature 33, Zone 2 of Feature 4, and Zone 1 of Feature 170. The latter fills may have been collected from areas where more intensive food preparation activities took place.



Factor 1 (23.3% Principal Inertia)

Figure 7.4. Correspondence analysis biplot of plant material counts for Ayers Town samples, labeled by residential complex. The symbol "U" stands for Feature 140, which was not assigned to a residential complex.

Variation in sample composition can be examined through correspondence analysis of count data. Since Zone F of Feature 33 did not produce any identifiable plant remains, it is excluded from analysis. Very infrequently encountered species produced spurious results, and these were also omitted: bramble, pokeweed, composite, spurge, grass, and weedy legume. Doing so required the removal of one sample (Zone A of Feature 33) that contained only these items. The resulting correspondence plot (Figure 7.4) displays three main groupings. The first is defined by Factor 1, which contains 23.3% of the principal inertia. Samples with high positive loadings in this factor contain more maize kernels than expected, such that most (0.626) of the inertia in this factor can be attributed to maize kernels (Table 7.8). Acorn meat, persimmon, and grape also are more likely to occur in these samples, one of which contains the single identified cereal grain fragment. Beans and maypop are also slightly correlated with Group A. Maize cupules, however, have negative loadings on Factor 1, indicating Group A samples contain less cupules than expected. Samples included in Group A come from Residential Complexes D and E (Features 33, 123, and 162), along with Feature 140. Groups B and C are defined by Factor 2, which contains 19.9% of the principal inertia. It distinguishes samples with more than expected jimsonweed and hickory from those that contain more than expected maize cupules. The greatest contributions to the inertia of this factor come from jimsonweed (0.745) and hickory (0.090). Mulberry is correlated with these items in Group B. Acorn shell, tobacco, and elderberry have negative loadings and more frequently occur in Group C samples. Squash, peach, and morning glory have low quality values, indicating their variation does not correlate

				Correla	tion ¹	Correla	tion ²
Plant Material	Mass	Quality	Inertia	Factor 1	Factor 2	Factor 1	Factor 2
Maize kernel	0.033	0.830	0.181	0.626	0.023	0.805	0.025
Maize cob row	0.044	0.123	0.011	0.003	0.004	0.056	0.067
Maize cupule	0.745	0.863	0.035	0.079	0.060	0.523	0.340
Bean	0.002	0.087	0.019	0.005	0.002	0.068	0.019
Squash	0.001	0.004	0.009	0.000	0.000	0.000	0.004
Cereal	0.001	0.227	0.034	0.032	0.002	0.217	0.010
Hickory shell	0.054	0.379	0.058	0.018	0.090	0.072	0.307
Acorn meat	0.004	0.268	0.159	0.149	0.040	0.218	0.050
Acorn shell	0.024	0.046	0.085	0.001	0.018	0.004	0.042
Peach	0.029	0.014	0.063	0.004	0.000	0.014	0.000
Маурор	0.002	0.060	0.077	0.019	0.002	0.056	0.004
Grape	0.001	0.162	0.029	0.019	0.001	0.158	0.005
Persimmon	0.001	0.246	0.028	0.030	0.001	0.242	0.004
Elderberry	0.004	0.051	0.010	0.001	0.001	0.025	0.026
Mulberry	0.001	0.087	0.028	0.000	0.012	0.003	0.084
Jimsonweed	0.052	0.926	0.164	0.015	0.745	0.021	0.905
Morning glory	0.000	0.001	0.003	0.000	0.000	0.001	0.000
Tobacco	0.002	0.040	0.008	0.000	0.001	0.006	0.034

Table 7.8. Correlation Analysis Statistics Calculated from Counts of Plant Materials from Ayers Town.

¹ Variable contribution to factors, or the principal inertia (deviation from expected value) in each factor that is attributable to each plant material.

² Variable squared correlation with factors, or the amount of total inertia for each plant material associated with each factor.

well with either of the first two factors. Samples in Group B were collected from features in Residential Complexes A, C, and D (Features 4, 27, and 33), as well as from Feature 140, while Group C samples are distributed broadly across the site.

The significance of the associations identified through correspondence analysis is only immediately apparent in the case of Group A. Maize kernels, cereal grain, and acorn meat are the edible portions of crops and staple foods that require processing prior to consumption. Since they are relatively free of processing waste, Group A fills may have been collected from areas where food preparation, but not early stage processing, took place. It is less clear why hickory shell and mulberry would be more likely to be found in samples with jimsonweed, and acorn shell, elderberry, and tobacco in samples with maize cupules. Seasonality does not provide a satisfactory explanation in either case, as mulberry is an early season fruit, and hickory nuts and jimsonweed ripen in the fall. Similarly, elderberry and tobacco may seed in mid-summer, but acorns would not be available until the fall. Temporality may be evident, however, in the distribution of hickory shell compared to cobs and cupules. Since Group C fills occur across the site and are defined primarily by high concentrations of cupules, this suggests cobs were typically burnt as fuel on a year-round basis, as corn was likely stored on the cob. The



Figure 7.5. Box plots of standardized maize cupule counts by residential complex. The symbol "U" stands for Feature 140, which was not assigned to a residential complex.

separation of hickory nutshell from this general fuel group may indicate hickory processing was more limited in duration.

Investigation of the spatial distribution of particular plant materials can further refine our understanding of variation among the residential complexes at Avers Town. An examination of maize cupule counts, standardized by the weight of carbonized material in each sample (Figure 7.5), shows the median values for Residential Complex D and Feature 140 to be very low, with the highest medians among the Complex A and C samples. Complexes D and E contain features with zones that yielded very high outlying values. The disparity between the very low and very high cupule counts in Complex D is due to the contrast between Feature 123, which has very high botanical weight density but very low cupule counts, and Feature 5, which has very high cupule counts. In Complex E, Feature 170 contains the highest standardized cupule counts. The median nutshell counts, standardized by the weight of carbonized material in each sample (Figure 7.6), are highest for Complexes A and C. Again, Complex D has a low median value but high outlying counts, in this case attributable to Features 5 and 33. The distribution of maize cupules may be the result of differential disposal rather than differential frequency of maize processing since cobs were also used as fuel in smudge pits. This may be the case for Complex E, where there are more smudge pits than the other residential areas. It is clear, however, that nuts were more frequently processed in the northern and western portions of the site (i.e., Residential Complexes A, C, and D).

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Figure 7.6. Box plots of standardized nutshell counts by residential complex. The symbol "U" stands for Feature 140, which was not assigned to a residential complex.

The most widely distributed weathered seeds at Ayers Town are bramble and elderberry. When standardized by volume, elderberry counts are consistent across the site with the exception of Features 5 and 123, which both have outlying values of more than 10 seeds per liter. Both of these features are located in Residential Complex D. The medians of standardized weathered bramble seed counts are highest for Residential Complexes A, B, and C (Figure 7.7). Feature 74 in Complex B and Feature 107 in Complex C have the highest values, which range from about two to three seeds per liter. Areas with relatively high occurrences of bramble and elderberry seeds may be indicative of locations where these items were temporarily massed for consumption or processing.

A comparison of plant material ubiquity by residential complex (Table 7.9) shows the influence of sample size on these spatial comparisons. The greatest number of analyzed samples come from Residential Complex D (n=16), and most of the low-ubiquity items come from Complex D samples. By comparing the number of samples in a complex that contain a certain item to the item's overall site ubiquity, it is possible to assess whether the material is evenly distributed across the site. With the exception of nutshell, mulberry seeds, and jimsonweed seeds, most items seem to be distributed evenly across the site. Hickory shell has a 59% ubiquity, so it might be expected to occur in approximately half of the samples from an area. It is present in all four samples from Complexes A and B. Similarly, since acorn shell has 13%



Figure 7.7. Box plots of standardized weathered bramble counts (count/sample volume) by residential complex. The symbol "U" stands for Feature 140, which was not assigned to a residential complex.

ubiquity, it should not even be present in these areas. However, it has 50% ubiquity in Complexes A and C. Mulberry has only 5% ubiquity and was found in Complexes A and C. Finally, jimsonweed seeds have 20% ubiquity but were found in both samples from Complex A (Feature 4). Feature 140, which was not assigned to a residential complex, also has unusually high amounts of jimsonweed seeds and maize kernel fragments, and low amounts of peach endocarp fragments.

The results of these spatial analyses suggest the presence of subtle variation in plant use across the site. If the residential complexes were inhabited sequentially, this variation may also be temporal. The households in the northern portion of the site appear to have been processing more nuts — particularly acorn — than those in the southern portion of the site, where maize kernel fragments are more abundant. This latter discrepancy was apparent in the correspondence analysis of Ayers Town samples, as samples containing more maize kernels were collected from features in Residential Complexes D and E, as well as from Feature 140.

Comparison of the Ayers Town macrobotanical materials to data compiled from the mideighteenth century sites of Nassaw-Weyapee (38YK434) and Charraw Town (38YK17) has the potential to identify variation in Catawba plant use during the second half of the eighteenth century. Extensive quantitative analyses are not warranted as only 13 samples from Nassaw-Weyapee and 12 from Charraw Town have been examined to date. However, ubiquity comparisons suggest the existence of similarities and differences in Catawba plant use at these sites (Table 7.10). The most striking similarity is the consistency in maize ubiquity, with Ayers

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Plant	Complex A (2 samples)	Complex B (2 samples)	Complex C (6 samples)	Complex D (16 samples)	Complex E (8 samples)	Feature 140 ¹ (5 samples)	Ubiquity (%)
Maize kernel	1	_	1	9	6	4	54
Bean	_	_	1	1	1	1	10
Squash	_	_	_	-	1	-	3
Grain	_	-	-	_	_	1	3
Hickory shell	2	2	4	7	6	2	59
Acorn shell	1	_	2	2	_	_	13
Peach	1	_	3	3	4	1	31
cf. Coffee	_	1	_	1	_	_	5
Маурор	_	_	1	1	1	1	10
Grape	_	_	1	_	_	2	8
Bramble	_	_	_	1	_	-	
Persimmon	_	_	_	1	_	1	5
Elderberry	_	_	_	2	_	_	5
Mulberry	1	_	1	-	_	-	5
cf. Sumac	_	-	-	_	_	1	3
Jimsonweed	2	_	2	_	1	3	21
Morning glory	_	_	_	-	1	-	3
Tobacco	_	_	2	-	_	-	5
Pokeweed	_	_	_	1	_	-	3
Composite	_	_	_	1	_	-	3
Spurge	-	—	_	1	—	-	3
Grass	_	_	1	1	_	_	5
Weedy legume	1	-	-	1	1	-	8

Table 7.9. Distribution of Plant Materials by Residential Complex.

¹Not assigned to a residential complex.

Town maize ubiquity (90%) falling between that of Nassaw-Weyapee (85%) and Charraw Town (92%). In certain respects, Charraw Town differs from both Nassaw-Weyapee and Ayers Town, while in others Ayers Town is different from the earlier sites. There is a much higher ubiquity of beans at Charraw Town (50%). Nuts are also more common at this site, with hickory occurring in 83% of the samples and acorn in 75%. At Ayers Town and Nassaw-Weyapee, on the other hand, hickory has 67% and 69% ubiquity, respectively, and acorn 18% and 23% ubiquity. Bramble is also more common at Charraw Town than the other sites. On the other hand, Ayers Town is distinguished from both earlier sites by its lower nut diversity, lower ubiquities of fruits such as peach, maypop, and grape, and by the presence of jimsonweed.

A correspondence analysis of counts shows that while the majority of samples from all three sites overlap, there is a set of samples from Ayers Town that have higher than expected maize kernel counts (Figure 7.8). Maize kernels contribute the most inertia (0.507) to Factor 2, which contains about 20% of the principal inertia (Table 7.11). These samples are from Features 123, 140, and 162, all in the southern portion of the site. This result is similar to that obtained in the correspondence analysis of only the Ayers Town contexts, but clearly the kernel rich samples are distinctive when compared to mid-eighteenth century Catawba contexts as well. Factor 1, which contains 23% of the principal inertia, contrasts samples with more hickory shell to those with more maize. Hickory is the primary source of inertia (0.402) for this factor, while maize kernels

		Ayers Town	Nassaw-Weyapee	Charraw Town
Plant	Scientific Name	(39 samples)	(13 samples)	(12 samples)
Maize	Zea mays	90	85	92
Bean	Fabaceae sp.	18	15	50
Squash	Curcurbita sp.	3	23	17
Sunflower	Helianthus annus	_	15	_
Grain	Unidentified cereal	3	_	-
Hickory	Carya sp.	67	69	83
Acorn	Quercus sp.	18	23	75
Chestnut	Castenaea dentata	_	15	_
Hazelnut	Corylus sp.	-	-	8
Peach	Prunus persica	31	77	83
Apple/Pear	Rosaceae	_	15	-
Coffee	cf. Coffea sp.	5	_	-
Маурор	Passiflora incarnata	10	62	83
Grape	Vitis sp.	8	31	50
Bramble	Rubus sp.	3	8	33
Persimmon	Diospyros virginiana	5	8	8
Nyssa sp.	Black gum	_	_	8
Elderberry	Sambucus sp.	5	_	_
Mulberry	Morus sp.	5	_	-
Sumac	cf. Rhus sp.	3	_	-
Jimsonweed	Datura stramonium	21	_	_
Morning glory	Ipomoea sp.	3	_	_
Tobacco	Nicotiana sp.	5	8	-
Pokeweed	Phytolacca americana	3	_	8
Purslane	Portulaca oleracea	_	-	17
Composite	Compositae	3	_	-
Spurge	Euphorbia sp.	3	_	17
Sedge	Scirpus sp.	-	8	-
Grass	Gramineae	5	_	-
Weedy legume		8	_	8

Table 7.10. Percent Ubiquity of Plants Identified at Three Catawba Sites.

and cupules contribute 0.141 and 0.279, respectively. Peach is moderately correlated with Factor 1, being more likely to occur in samples with high hickory counts relative to maize processing waste. Grape, maypop, and bean, on the other hand, are moderately correlated with Factor 2, occurring more frequently in samples with high maize kernel counts. Squash, acorn, and persimmon all have very low quality values, making their positions on the graph difficult to interpret. Ayers Town samples with higher than expected maize kernel counts plot at the top of the graph, with considerable overlap in contexts from all three sites below. However, more Nassaw-Weyapee and Ayers Town samples are in the lower left quadrant of the graph due to

				Contribu		Correlat	tion ²	
Plant Material	Mass	Quality	Intertia	Factor 1	Factor 2	Factor 1	Factor 2	
Maize kernel	0.037	0.759	0.180	0.141	0.507	0.219	0.540	
Maize cob/cupule	0.689	0.953	0.082	0.279	0.001	0.950	0.003	
Bean	0.015	0.216	0.060	0.008	0.057	0.036	0.180	
Squash	0.001	0.004	0.017	0.000	0.000	0.000	0.004	
Hickory shell	0.103	0.877	0.182	0.402	0.244	0.620	0.257	
Acorn	0.029	0.093	0.106	0.026	0.013	0.070	0.023	
Peach	0.078	0.304	0.106	0.099	0.023	0.262	0.042	
Маурор	0.037	0.224	0.118	0.013	0.118	0.032	0.193	
Grape	0.009	0.281	0.021	0.008	0.019	0.112	0.169	
Persimmon	0.001	0.081	0.126	0.024	0.018	0.053	0.028	
Maize kernel	0.037	0.759	0.180	0.141	0.507	0.219	0.540	

Table 7.11. Correlation Analysis Statistics Calculated for Counts of Plant Materials from Ayers Town, Nassaw-Weyapee, and Charraw Town.

¹ Variable contribution to factors, or the principal inertia (deviation from expected value) in each factor that is attributable to each plant material.

² Variable squared correlation with factors, or the amount of total inertia for each plant material associated with each factor.

their high maize cupule content, while most Charraw Town samples have higher values in both factors due to their greater maypop, grape, bean, hickory, and peach counts.

In sum, the macrobotanical assemblages from Ayers Town, Nassaw-Weyapee, and Charraw Town display variation on a theme. Maize was clearly the staple crop at all three sites, but the extent to which supplementary resources were used varied. The Charraw Town assemblages contain evidence of more collecting activities with regard to both mast and fruits, while the Ayers Town and Nassaw-Weyapee assemblages contain less of these resources. In particular, fruits such as peach, maypop, and grape occur less frequently at Ayers Town. On the other hand, certain contexts at the site contain relatively high densities of maize kernel fragments. The only evidence for Catawba use of European staple crops at these sites is the single partial cereal grain from Ayers Town.

Discussion

This investigation has adopted a multi-scalar approach to the analysis of macrobotanical remains. The distribution of materials within Ayers Town provides information concerning spatial and possibly temporal variation in activities at the site level, roughly corresponding to the history of the community. Comparisons between Ayers Town, Nassaw-Weyapee, and Charraw Town provide information about the nature of variation in plant use between Catawba communities during the second half of the eighteenth century. Comparisons even further afield can help situate late eighteenth-century Catawba plant use generally in the long-term context of European colonialism in the Southeast.



Figure 7.8. Correspondence analysis biplot of plant material counts for Ayers Town (A), Nassaw-Weyapee (N), and Charraw Town (C) samples.

Variation in the density of carbonized material in storage pit fills across Ayers Town indicates localized differences in the extent of burning activities that enriched the surrounding soil with charcoal waste. Storage pits with the cleanest fills are present in the western part of the site, while fills with the highest charcoal densities are present in the southern portion of the site. At a minimum this indicates more hearth cleanings ended up in the southern portion of the site. The northern and southern portions of Ayers Town are further distinguished by the presence of more maize kernel fragments in the southern portion of the site, and more nut shell in the northern and western portion of the site.

The primary difference between the Ayers Town and mid-eighteenth century Catawba botanical assemblages is the presence of fills with more maize kernel fragments at Ayers Town. This is the case despite the fact that all three sites have similar overall maize ubiquities, which seems to indicate this difference is not related to the extent to which maize was utilized. Instead, the elevated maize kernel counts in Features 33, 123, 140, and 162 may be the result of variation in cooking or farming practices. Maize processed by dry heat (parching or roasting) is more likely to become carbonized than boiled maize. However, the boiling of kernels during hominy

production produces kernels that are less affected by distortion during carbonization, potentially resulting in the preservation of more complete specimens (King 1987:186–197). While Lady Liston advises us that Avers Town residents ate boiled maize on the road, she notes that it was processed into flour beforehand. It is possible that the high maize kernel fragment densities in the southern portion of the site are the result of Catawba women parching more grain for grinding into corn meal. Alternatively, the high kernel fragment counts at Ayers Town may be the result of changes in maize farming practices. Archaeobotanists in England have debated the significance of "grain-rich" assemblages (Hillman 1981; Jones 1985; Stevens 2003; Van der Veen and Jones 2006). Initially thought to distinguish "producer" from "consumer" sites, grainrich contexts are now thought more likely to be evidence for either large-scale production or consumption. This is based on the premise that grain-rich samples are the result of relatively rare accidents that are simply more likely to occur when cereals are handled in bulk (Van der Veen and Jones 2006:226). From this perspective, the higher maize fragment densities may be evidence for Catawba women at Ayers Town producing or processing corn in larger groups than those working in the 1750s. In either case, the parching of more maize for flour or working in larger groups may be associated with the development of the Catawba's itinerant pottery trade.

Another notable characteristic of the Ayers Town's botanical assemblage is an absence of indigenous spring-ripening grass seeds and only a single partial European cereal grain. Their Muskogee contemporaries, on the other hand, clearly farmed both indigenous and European cool season grasses. At Cussetuh Town (ca. 1750–1775) a total of 44 cereal grains were identified in 12% of the examined samples, while the slightly later town of Salenojuh (ca. 1770–1780) vielded 133 cereal grains (Bonhage-Freund 2007). The Cussetuh macrobotanical assemblage contains only a single maygrass seed, but 70 seeds of this native spring-ripening grass were identified in the Salenojuh samples. Contexts dating c. 1750 to 1780 at Fusihatchee vielded six seeds of little barley and four wheat-like seeds, along with cereal grain rachis fragments (Gremillion 1990). The presence of rachis fragments is strong evidence for the farming of cereal grains. The identification of only a single partial cereal grain at Ayers Town, and no indigenous cool-season grasses, suggests a significant difference in farming practices between these two contemporary groups. This difference cannot be attributed to logistics associated with the itinerant pottery trade, for indigenous and European cool-season grasses are absent from the earlier Catawba sites of Spratt's Bottom, Nassaw-Weyapee, and Charraw Town, all of which pre-date the development of Catawba trade ware. Although not caused by Catawba itinerancy, it is possible this pre-existing agricultural pattern made it easier for Catawba families to travel to the low country in the winter and spring, as they would not be concerned about maintaining fields or harvesting during this part of the year. In focusing on seasonality rather than "origin" of crops, this analysis has attempted to avoid the conflation of origin and identity that is frequently employed in analyses of artifacts from historic period American Indian sites (Silliman 2009). In other words, the fact that cereals ultimately originated in Europe does not automatically mean this was salient to American Indian groups. Once grown in concert with other cool season grasses, cereals became Indian crops too. In most cases their growing, storage, and processing requirements, not to mention their taste, likely played a more important role in their use than their pedigree.

The macrobotanical materials from Ayers Town, Nassaw-Weyapee, and Charraw Town provide unambiguous evidence for Catawba maize production during the second half of the eighteenth century. Higher standardized maize kernel counts at Ayers Town suggest changes in the processing of maize rather than the extent to which maize was utilized as a staple crop. Nuts, also an important resource, were most heavily exploited at Charraw Town. While Ayers Town residents' nut-collecting is comparable to that of the Nassaw-Weyapee community, there is less evidence for the use of fleshy fruits at Ayers Town compared to both earlier sites. Finally, Catawba agriculture of the mid to late eighteenth century appears to have focused on warm-season crops. A dramatic change in Catawba plant use does not appear to accompany the dramatic shift in ceramic production associated with the development of Catawba trade ware, but the subtle change observed in maize processing may be associated with the production of a "just add water" travel food as Lady Liston was told.

Archaeofaunal Analysis

by

Thomas R. Whyte

Archaeofaunal remains resulting from archaeological excavations at Ayers Town yielded 3,785 archaeofaunal specimens from 237 discrete archaeological contexts. All of these are attributed to the late eighteenth-century Catawba occupation of the site. The assemblage and contexts, when compared with those of nearby Catawba Old Town and New Town (Davis and Riggs 2004), provide a unique opportunity to investigate intercommunity variations in subsistence practices during the Federal period that may reflect vestiges of pre-Federal period ethnic identities.

Methods of Identification and Analysis

Specimens were examined by the author to identify the anatomical element (bone, tooth, etc.) and species represented, the portion (distal, proximal, etc.) and side (left *versus* right) represented by each element, and when possible, the age and sex of the individual represented. Each specimen also was examined for evidence of artificial modification (cut marks, polish, striations, etc.), burning, perimortem or postmortem breakage, carnivore or rodent gnawing, and digestion. Specimens from each provenience unit were weighed (to the nearest tenth of a gram) in broad taxonomic groupings (usually by class) and, with the exceptions of indeterminate vertebrate bone and large bird eggshell fragments, were counted. Although they were weighed, the latter exceptions are too numerous and fragmentary, often in part because of recovery and processing damage, for their enumeration to have any meaning. Consequently, the number of identified specimens per taxon and provenience excludes eggshell fragments and vertebrate remains that could not be assigned to a class. While it is probable that all eggshell fragments recovered represent the Domestic Chicken, some fraction of them may have originated from eggs of wild birds. Therefore, all fragments were conservatively identified as "large bird eggshell."

Identification of specimens was made with reference to the comparative collection in the Zooarchaeological Lab at Appalachian State University. This collection is nearly comprehensive for the Holocene vertebrate fauna of the study region, lacking only in extinct species and a few species of salamanders, snakes, cyprinid fishes, and migratory passerine birds. Specimens of rare fish species (family Catostomidae) were borrowed from Robert E. Jenkins of Roanoke College, Virginia. Other Catawba River fishes were generously donated to the comparative collection by David J. Coughlan of Duke Energy. Arthur E. Bogan of the North Carolina Museum of Natural Sciences provided identifications of some freshwater mussel shell. Some

specimens evidently fractured during archaeological recovery (as indicated by an absence of soil staining on fracture surfaces) were combined when possible and recorded as individual specimens. As a result, specimen totals presented for any one provenience here may be fewer than those reported in the RLA's preliminary inventories for the sites. Potentially conjoinable fragments that had broken apart prior to excavation were recorded as individual specimens.

A final note to be made is a point on current convention in presenting the vernacular or common names of animals in scientific literature. Most biological sciences have begun to capitalize official common names such as "Wild Turkey" but to retain lower case in naming more general groupings such as "turkey." This new convention is followed herein.

Potential Biases

Evidence of preservation bias was immediately apparent at the start of this analysis. Of the 3,785 enumerated specimens recovered from Ayers Town, only 28% are burnt. However, a few features yielded only calcined vertebrate remains while most contained a combination of burnt remains and ones not affected by fire. Higher frequencies of especially calcined bone, when conditions of burial and soil acidity and moisture are relatively similar, are usually an indication that unburned bones in those same deposits have experienced more biophagic degradation (Whyte 1997, 2001, 2011). Decomposition was likely influenced by bone size and density, and thus variable among vertebrate classes and animal sizes (Lyman 1993).

Use of varying mesh size in recovery of archaeofaunal specimens must be taken into account when comparing contexts and sites (Reitz and Wing 2008). Sediments passed through quarter-inch mesh are less likely to contain remains of smaller vertebrates and invertebrates (e.g., land snails, toads, mice, passerine birds) and the smaller elements (e.g., scales, phalanges, carpals, and teeth) of mid-sized vertebrates. However, all feature contexts at Ayers Town, whether wet-screened or floated, were minimally processed by 1/16-inch mesh. Thus, recovery bias essentially was limited to feature versus plow zone contexts.

The preservation and identification of scales may have resulted in a bias in favor of the representation of two fish families—Catostomidae (suckers) and Centrarchidae (basses). Cycloid scales exceeding 7 mm in diameter were identified as family Catostomidae, whereas ctenoid scales of that size were assigned to the family Centrarchidae and likely represent Largemouth Bass (*Micropterus salmoides*).

Certain vertebrate specimens, despite their extreme fragmentation and diminutive size, remain identifiable to some degree because of their distinctive textures or unique structures. These include catfish (*Ameiurus* spp.) pectoral spines, turtle (Testudunes) carapace and plastron (costal) bones, large bird (probably chicken) eggshell, and pig and deer tooth enamel. Taxa and elements represented by these specimens relative to others are thus better represented in the resulting data. This is especially true for the contexts that yielded only small crumbs of calcined vertebrate remains. These preservation, recovery, and identification biases are observed in the analysis and interpretation that follow.

Scientific Name	Common Name	NISP
Stylomatophora	Terrestrial Snail	3
Elliptio icterina	Variable Spike	1
Elliptio complanata	Eastern Elliptio	11
<i>Elliptio</i> sp.	Elliptio	1
Unionidae	Freshwater Mussel	38
Lepisosteus osseus	Longnose Gar	4
Nocomis leptocephalus	Bluehead Chub	2
Moxostoma collapsum	Notchlip Redhorse	2
Carpoides cyprinus	Quillback	1
Moxostoma sp.	Redhorse	3
Ameiurus brunneus	Snail Bullhead	11
Ameiurus catus	White Catfish	26
Ameiurus nebulosus	Brown Bullhead	3
Ameiurus platycephalus	Flat Bullhead	4
Ameiurus sp.	Bullhead	128
Esox niger	Chain Pickerel	28
Lepomis auritus	Redbreast Sunfish	1
Lepomis gullosus	Warmouth Sunfish	3
Lepomis sp.	Sunfish	20
Micropterus salmoides	Largemouth Bass	38
Centrarchidae	Bass/Sunfish	34
Osteichthyes	Bony Fish	855
Bufo sp.	Toad	25
Rana sp.	Frog	1
Kinosternon subrubrum	Eastern Mud Turtle	1
Chrysemys sp.	Slider/Cooter	10
Terrapene carolina	Eastern Box Turtle	39
Testudines	Turtle	44
Anas platyrhynchos	Mallard	2
Meleagris gallopavo	Wild Turkey	20
Gallus gallus	Domestic Chicken	31
Zenaida macroura	Mourning Dove	1
Colaptes auratus	Common Flicker	7
Dryocopus pileatus	Pileated Woodpecker	1
Cyanocitta cristata	Eastern Blue Jay	1
Mimidae	Mimic Thrush	1
Fringillidae	Sparrow	4
Passeriformes	Perching Bird	17
Aves (small)	Small Bird	3
Aves (medium)	Medium Bird	2
Aves (large)	Large Bird	88
Aves	Bird	79
Didelphis virginiana	Opossum	7
Canis familiaris*	Domestic Dog	1
Canis sp.	Dog/Wolf	2

Table 7.12. Number of Identified Specimens (NISP) of Animal Remains from Ayers Town.

Scientific Name	Common Name	NISP
Ursus americanus	Black Bear	1
Procyon lotor	Raccoon	1
Sciurus carolinensis	Gray Squirrel	39
Sciurus sp.	Tree Squirrel	13
Sylvilagus sp.	Cottontail	7
Sus scrofa	Domestic Pig	144
Odocoileus virginianus	White-tailed Deer	158
Cervidae	Deer/Elk	3
Bos Taurus	Domestic Cattle	24
Artiodactya	Even-toed Mammal	13
Equus caballus	Domestic Horse	3
Mammalia (small)	Small Mammal	35
Mammalia (large)	Large Mammal	246
Mammalia	Mammal	1,494
Vertebrata	Vertebrate	24
Total Counted Specimens		3,785

Table 7.12 Continued.

* *Canis familiaris* (dog) specimens include a nearly complete skeleton of a young (less than one month) pup recovered from Feature 140.

**Unidentified vertebrate remains, extremely numerous and fragmentary, were weighed (149 g) but not counted.

Results

Archaeofaunal remains from the Ayers Town site are relatively numerous and representative of diverse species (Table 7.12). They include 3,785 enumerated specimens, 149 g of unidentifiable vertebrate bone, and 5 g of large bird eggshell fragments. These were recovered from 51 subterranean features and a few plow zone contexts. Most features yielded less than ten specimens each. Features 123 and 140 each contained over a thousand specimens. That only 28% of specimens are burnt indicates exceptional faunal preservation at this site. The four subterranean pit features (91, 123, 140, and 190) that yielded more than 100 enumerated specimens exhibit varied taxonomic compositions (Table 7.13). This and the fact that the items contained in these features are arguably re-deposited secondary refuse indicate that dietary evidence is not evenly homogenized among contexts and no one context can be regarded as representative of the overall site. It is with necessary caution then that dietary and other cultural reconstructions are made on the basis of the following summary of taxa.

Molluscan remains (54 specimens) from the site include whole and fragmented valves of terrestrial snails (Stylomatophora) that are likely intrusive or inadvertent inclusions, and whole and fragmented valves of freshwater mussels that likely represent food (Table 7.12). The latter identify at least two species (*Elliptio complanata* and *E. icterina*). The majority of specimens (70%) are very small fragments of valves that could only be identified as family Unionidae (Table 7.12). The posterior margins of several mussel valves are damaged, probably as a result of shucking. No valves within the analyzed sample exhibit evidence of use as tools; however,

Taxon*	Feature 91	Feature 123	Feature 140	Feature 190
Fishes	17	41	52	65
Turtles	7	2	8	4
Wild birds	0	9	8	3
Wild small mammals	0	12	3	1
Wild large mammals	45	11	14	5
Chickens	10	6	<1	3
Pigs	17	20	9	17
Cattle	3	0	6	1

Table 7.13. Taxonomic Composition (%) for Primary Features at Ayers Town.

*Includes only specimens minimally identified to animal family.

four specimens with heavily ground edges were classified as scrapers and are described in Chapter 6.

Bony fish remains (1,163) from this site outnumber all other classes and represent a minimum of 12 species, including gars, minnows, suckers, catfishes, pickerels, sunfishes, and basses (Table 7.12). Most numerous are remains of bullhead catfishes (*Ameiurus* spp.). Fish remains were particularly numerous and of diverse species in Features 123 and 140. Seventy-four percent of fish remains, primarily ribs, spines, and vertebrae were identifiable only as class Osteichthyes. Individuals of all the species represented may have been captured by angling with baited hook, with nets, or by poisoning (see Speck 1946). The abundance of nocturnal catfish remains (*Ameiurus* spp.) may indicate deliberate fishing at dusk or dark, or (more likely) the use of seines or poison at any time (Speck 1946). All of the species represented are relatively common today, although the numbers of some have undoubtedly been affected by historically introduced competitors, river impoundment, siltation, and pollution.

Skeletal remains of toads of the genus *Bufo* (25 specimens) and a frog of the genus *Rana* (one specimen) were recovered. The toad remains are mostly whole bones representing all parts of the skeleton and were recovered from three deep storage pits (Features 3, 123, & 140). For the most part, these remains probably represent natural entrapment (see Whyte 1994). Three of the five specimens (representing a minimum of two individual toads) from Zone 6 of Feature 140 are calcined and may have become so through refuse burning. There are no records of toad use by the historic Catawba, although Lawson (Lefler 1967:132) reports, and may have derived his observation from natives of the Carolina Piedmont, that "the Common Land-Frog is likest a Toad, only he leaps, and is not poisonous. He is a great Devourer of Ants, and the Snakes devour him. These Frogs baked and beat to Powder, and taken with Orrice-Root cures a Tympany."

Turtle remains (94 specimens), recovered from a variety of features at Ayers Town, are primarily costal fragments representing Eastern Mud Turtle (n=1), Slider/Cooter (n=10), Eastern Box Turtle (n=39), and indeterminate turtle (n=44) (Table 7.12). None shows evidence of artificial modification other than burning.

Bird remains from this site (256 enumerated [bone] specimens and 5 g of eggshell fragments) are representative of seven species and two additional families (Table 7.12). The majority are remains of the larger birds, Wild Turkey (20 specimens) and Domestic Chicken (31 specimens). The eggshell pieces are presumed to have derived from domestic poultry. No

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evidence of Peafowl or other domestic fowl besides the chicken was identified. Also represented are Mallard, Mourning Dove, Common Flicker, Pileated Woodpecker, and Easter Blue Jay. These were recovered from various feature contexts with no evident patterning. However, all but one of the woodpecker remains were recovered from Feature 123. If Speck's (1946) ethnographic data are reliable and can be extended to earlier Catawba, no bird save the Mourning Dove and Bald Eagle was exempt from the menu.

Ten species are represented by more than 2,191 mammalian specimens (Table 7.12). These include a variety of wild and domesticated taxa. Most remains (76%) of the former are squirrel (*Sciurus* spp.). Six of the seven bones of Opossum (*Didelphis virginianus*) were recovered from Feature 123 and represent a single individual. One nearly complete skeleton of a Domestic Dog (puppy) was recovered from Zone 6 of Feature 140 and appears to have been deposited there out of convenience. The other domestic dog remains are two metatarsal fragments (one calcined) recovered from Features 123 and 139.

White-tailed Deer (*Odocoileus virginianus*) remains comprise the majority of identifiable specimens of wild mammals and are dominated by cranial and foot elements (66%) due to density-mediated preservation (Lyman 1993) and identification bias. Cut marks and carnivore gnawing were observed on several specimens. The one antler tine had been sawn from the rack, perhaps to provide a tool handle. Cut marks are most common at limb joints and on the necks of ribs. Evidence of some perimortem fracture of long bones indicates possible marrow-getting or bone reduction for soup making.

Domesticated mammal remains identified include those of pig (n=144), cattle (n=24), and horse (n=3) (Table 7.12). The vast majority (85%) of pig remains are parts of the head (primarily teeth), thus inflating their perceived representation relative to other taxa. Only one pig bone, a rib fragment, exhibits cut marks. Cattle remains include a variety of cranial and postcranial bones. One scapula and one ilium exhibit chop marks made with a cleaver, hatchet, or large knife. Horse remains from this site include a relatively whole mandible of an old individual (judging from tooth wear) from Feature 140, a carnivore-gnawed proximal phalanx, also from Feature 140, and a mandibular first molar from Feature 123. The occurrence of the mandible in Feature 140 may indicate the consumption of older horses deemed otherwise useless. However, the presence of a carnivore (dog)-gnawed horse phalanx in the same feature suggests secondary deposition of yard debris.

Conclusion

Ayers Town, occupied from about 1781 to 1800, overlaps with the occupations at Old Town (1761–c. 1800) and New Town (c. 1790–1820), located across the river. This site yielded 3,785 enumerated archaeofaunal specimens that, like those at Old Town (Table 7.14) and New Town (Table 7.15), represent a remarkable array of wild species and are dominated by fish remains. But in contrast to the Old Town and New Town assemblages, remains of White-tailed Deer are much more abundant than those of domestic stock. This difference cannot be explained by temporal or geographic differences and may reflect ethnic preferences or differences in the extent of economic involvement with white invaders. Lady Henrietta Liston may have visited Ayers Town in 1797, where she made the observation that: "He apologized for the smallness of their numbers saying, the young Men had not yet come in from hunting. We had, indeed, met some of them selling their Deerskins a hundred miles to the South" (Liston 1797). This raises

Scientific Name	Common Name	NISP
Pleuroceridae	Aquatic Snail	1
Stylommatophora	Terrestrial Snail	13
Unionidae	Freshwater Mussel	29
Esox sp.	Pickerel	1
Moxostoma cf carolina	Carolina Redhorse	2
Scartomyzon braesius	Brassy Jumprock	1
Moxostoma sp.	Redhorse	1
Catostomidae	Sucker	16
Ameiurus brunneus	Snail Bullhead	4
Ameiurus sp.	Bullhead Catfish	50
Lepomis sp.	Sunfish	4
Micropterus salmoides	Largemouth Bass	4
Centrarchidae	Bass/Sunfish	13
Osteichthyes	Bony Fish	161
Caudata	Salamander	3
<i>Bufo</i> sp.	Toad	40
Chrysemys picta	Painted Turtle	8
Chrysemys sp.	Slider	1
Terrapene carolina	Eastern Box Turtle	12
Testudines	Turtle	23
Meleagris gallopavo	Wild Turkey	7
Gallus gallus	Domestic Chicken	15
Passeriformes	Perching Bird	4
Aves (medium)	Medium-sized Bird	1
Aves (large)	Large-sized Bird	60
Aves (indeterminate size)	Bird	2
Carnivora	Carnivore	2
Mus musculus	House Mouse	6
Rattus norvegicus	Norway Rat	9
Muridae	Old World Rat	1
Sciurus sp.	Tree Squirrel	4
Rodentia	Rodent	7
Sylvilagus sp.	Cottontail	10
Odocoileus virginianus	White-tailed Deer	87
Bos Taurus	Domestic Cattle	12
Sus scrofa	Domestic Pig	125
Artiodactyla	Even-toed Mammal	7
Mammalia (large)	Large Mammal	210
Mammalia (small)	Small Mammal	7
Mammalia	Mammal	1196
Vertebrata	Vertebrate	*
Total Counted Specimens		2,159

Table 7.14. Number of Identified Specimens (NISP) of Animal Remains from Old Town.

*Unidentified vertebrate remains, extremely numerous and fragmentary, were weighed (110 g) but not counted.

Scientific Name	Common Name	NISP
Pleuroceridae	Aquatic Snail	1
Triodopsis albolabris	White Lipped Snail	1
Triodipsis sp.	Triodopsis snail	1
Stylommatophora	Terrestrial Snail	22
Elliptio icterina	Variable Spike	2
<i>Elliptio</i> sp.	Freshwater Mussel	6
Unionidae	Freshwater Mussel	13
Mollusca	Mollusk	1
Moxostoma cf robustum	cf Robust Redhorse	4
Ameiurus brunneus	Snail Bullhead	2
A. catus	White Catfish	1
A. nebulosus	Brown Bullhead	1
A. platycephalus	Flat Bullhead	4
Ameiurus sp.	Bullhead Catfish	49
Lepomis sp.	Sunfish	1
Micropterus salmoides	Largemouth Bass	1
Centrarchidae	Bass/Sunfish	2
Osteichthyes	Bony Fish	156
Bufo sp.	Toad	2
Kinosternidae	Musk Turtle	1
Chrysemys sp.	Slider	1
Terrapene carolina	Eastern Box Turtle	9
Testudines	Turtle	45
Gallus gallus	Domestic Chicken	1
Picidae	Woodpecker	1
Passeriformes	Perching Bird	2
Aves (large)	Large-sized Bird	7
Aves (indeterminate size)	Bird	1
Ursus americanus	Black Bear	1
Peromyscus sp.	Deer Mouse	1
Sciurus niger	Fox Squirrel	1
Sciurus sp.	Tree Squirrel	1
Sylvilagus sp.	Cottontail	1
<i>Équus</i> sp.	Horse/Mule	1
Odocoileus virginianus	White-tailed Deer	6
Bos taurus	Domestic Cattle	6
Sus scrofa	Domestic Pig	69
Artiodactyla	Even-toed Mammal	1
Mammalia (large)	Large Mammal	31
Mammalia (small)	Small Mammal	2
Mammalia	Mammal	228
Vertebrata	Vertebrate	*
Total Counted Specimens		687

Table 7.15. Number of Identified Specimens (NISP) of Animal Remains from New Town.

*Unidentified vertebrate remains were weighed (21.7 g) but not counted.

the possibility that members of the confederacy at that time retained vestiges of earlier ethnic identity that may be expressed in material culture, architecture, and the vagaries of subsistence.

Diminished evidence of hunting at the slightly later site of New Town (only six specimens of White-tailed Deer, no remains of Wild Turkey, and very few remains of wild small game) may indicate a decided preference for domestic fauna. However, Calvin Jones (1815), upon visiting New Town, observed that the men were away hunting and fishing while the women were engaged with their pottery. Perhaps a lack of success in the former is an indication of the impact on deer populations by the ever-increasing whites in the region. Brown (1966:322) states that after a small reservation was purchased for the Catawba in 1842 (two decades after the abandonment of New Town), "Hunting and fishing were resumed, but a rabbit, a squirrel, or an opossum was the biggest game possible to snare."

Frank Speck (1946:9) later noted: "The decline of hunting among Siouan-speaking Indians of the Carolinas dates from the beginning of the last century, when the spread of European settlement attended with the conversion of the forest areas into cotton and corn fields marked the extermination of the larger animals of the Piedmont section." He further mentions (p. 9): "there has not been a Catawba Indian living within the last generation who has experienced the thrill of hunting any beast greater than the raccoon." He also noted (p. 13) that "Since the wild turkey has for many years been unknown in the inhabited districts of the Catawba valley, the memory (of turkey calling) only has come down to us in the use of the bird's wing bone as a 'call' for young birds." From this Speck (1946:5) deduced that: "Not finding it compatible with their biggame and campaigning tradition to accept a transitional status as small animal hunters and fishermen, they held their place in a depleted faunal environment, and became a supine community." Yet it is clear from Speck's (1946) study of Catawba hunting, trapping, and fishing, and from the archaeofaunal evidence from Federal-period Catawba sites, that fishing was always a reliable focus of the Catawba subsistence economy. Perhaps their common designation as the "River People" is on the mark.

Chapter 8 SUMMARY AND CONCLUSIONS

The Ayers Town site was excavated in 2010–2011 in order to mitigate through archaeological data recovery the anticipated adverse impact upon the site by South Carolina Department of Transportation's planned replacement of the SC Highway 5 bridges across the Catawba River. Although the bridge replacements would not directly impact the site, the project required the relocation of an existing high-pressure gas pipeline running along the north side of the highway and the proposed new pipeline corridor crossed the center of the site. Because of the site's small size and the expectation that one or more archaeologically important or culturally sensitive features, such as graves, could be present, the scope of work called for complete exposure of the site in order to identify any such remains and, if needed, remove them from harm's way.

Complete exposure of the site was achieved by the systematic, mechanized stripping of topsoil. This provided a rare opportunity to identify, map, and sample archaeological features comprising what is thought to represent almost the *entire* settlement at Ayers Town, with the exception of possible house-related features at the already-disturbed site edges. As a consequence, Ayers Town represents our most complete, excavated example of an historic Catawba settlement, and the site has yielded an extensive dataset for examining social, material, and economic aspects of Catawba lifeways during the late 1700s. Of the 191 features identified at the site, 167 were of cultural origin or contained artifact-bearing deposits of cultural origin. These include cellars and other sub-floor storage pits, refuse-filled soil-borrow pits, cob-filled smudging pits, postholes, and 31 graves; the remaining 24 features represent natural disturbances. The spatial arrangement of these features has permitted the identification of individual households and interpretations about overall community structure. The more than 20,000 artifacts and ecofacts recovered from these and other contexts have shed light on Catawba technology, subsistence, external economic relationships, and other material-based aspects of Catawba life. When compared and contrasted with earlier, later, and contemporary Catawba town sites such as Nassaw-Weyapee, New Town, and Old Town, the physical remains of Ayers Town allow insights into both the trajectory of culture change among Catawbas during the late eighteenth and early nineteenth centuries and the diversity between individual towns that imply deeper social and political divisions within the Catawba Nation. While some of these questions are beyond the scope of this report, the data presented are integral to any broader comparative studies of the Catawba condition during this period.

Until the discovery of Ayers Town in 2008, the historic Catawba occupation along the west side of Catawba River was largely undocumented archaeologically, except for several late nineteenth-century and early twentieth-century house sites recorded on the present Catawba Reservation by personnel with the Catawba Cultural Preservation Project. All archaeological evidence attributed to the Catawba Nation during the eighteenth and early nineteenth centuries had been found along the east side of the river between Lake Wylie dam and Twelvemile Creek, and all previous intensive archaeological investigations had been undertaken there. While

historical records, including both maps and travelers' accounts, reference Catawba settlement after 1800 in the vicinity of the present reservation, situated on the west bank of the river five kilometers (3 mi) north of the site, a late eighteenth-century settlement at the southern edge of the pre-1840 reservation and opposite the mouth of Twelvemile Creek was unanticipated. For this reason the site's discovery was significant, in that it provided important new information and insight into late eighteenth-century lifeways for a segment of the Catawba Nation that had not been previously identified and studied.

In particular, the excavations at site 38YK534 and a reassessment of the documentary record of the post-Revolutionary War era have permitted: (1) an identification of the Catawba community that occupied the site; (2) a determination of the specific inception date for the settlement and an approximate date when it was likely abandoned; (3) an assessment of the number and spatial arrangement of households comprising the settlement; and (4) a documentation of the material evidence attributable to that settlement. In particular, the artifact assemblage recovered from Ayers Town provides a basis for examining the varied householdbased and community-based social, economic, and political strategies that Catawbas employed to ensure their survival during the early years of the new republic.

The most important historical document related to the site is the unpublished travel diary of Lady Henrietta Liston, who in 1797 visited the Catawba community there. In her diary, Liston described her visit to a Catawba town on the west side of the river in the general location of the site. Her recounting of the route she took from Robert Crawford's house in the Waxhaws to the Indian town, and the distance she traveled, confirm that her detailed observations are of a community whose location coincides with site 38YK534. Liston identified the leader of the town as the "Colonel", who was second in command to the overall Catawba leader, referred to as the "General". This principal leader lived in another town on the opposite side of the river and almost certainly was General New River. Only one Catawba is listed in other post-Revolutionary War-era documents as holding the rank of colonel among the Catawbas, and that individual was John Ayers (also spelled Eayrs, Eayers, or Ears) (Brown 1966:268–269; Watson 1995:93–94). For this reason, it was deemed appropriate to name the site Ayers Town.

Archaeological and documentary evidence combine to provide inception and likely abandonment dates for Ayers Town. Contemporary maps indicate that the Catawba Nation was largely settled in a single town on the east side of the river, above the mouth of Twelvemile Creek, during the early years of the American Revolution (Mouzon 1775). As American allies, Catawbas were forced to abandon both their town and the Catawba valley ahead of Cornwallis' troops in summer 1780, and they did not return until mid-1781. In his published diary, Lieutenant William Feltman of the Second Pennsylvania Line indicates that some Catawbas were settled in the vicinity of Ayers Town by mid-December, 1781 (Feltman 1853:31). Thus, Ayers Town was likely established sometime during the latter half of 1781. A subsequent deed, dated 1786, also references a Catawba town opposite the mouth of Twelvemile Creek (Schmidt 1985:76).

When Ayers Town was abandoned is a more difficult question to answer, and it is not known if the town was abandoned gradually or suddenly. A terminal date of occupation around 1800 is suggested by the overall assemblage composition of European-made ceramics, where creamware comprises almost half the assemblage and pearlware sherds comprise a minority ware. A mean ceramic date of 1787.9 was calculated using all datable European-made ceramics from Ayers Town, and a slightly later date of 1796.9 was calculated using only the predominant

wares — creamware and pearlware. This is in contrast to the slightly later site of New Town, where the assemblage of European-made ceramics is much larger and dominated by pearlware. Mean ceramic dates ranging from 1803.1 to 1807.5 were calculated for the five excavated cabin loci at that site. Other datable artifacts from Ayers Town, such as iron nails that are almost exclusively hand-wrought or machine-cut with wrought heads, also support a terminal date of about 1800. The fact that many of the later artifacts, such as pearlware sherds, came from only a few pit features suggests that town abandonment may not have occurred all at once. Some households may have remained a few years after most of the town's other occupants left. The presence of 31 graves, formally arranged in cemeteries, also suggests that the town site may have continued to serve a mortuary function well into the nineteenth century — a situation analogous to the continued use of New Town as a cemetery long after its formal abandonment (Speck 1939).

While we cannot say with certainty why the occupants of Ayers Town chose to abandon their settlement or where they went, it is possible that they established their new town just a few miles to the north near the present Catawba Reservation. An 1825 map of York District in Robert Mills' Atlas of the State of South Carolina shows the Catawba Nation established just below the mouth of Catawba Creek (now Haggins Branch) and opposite the old settlement of New Town. Such a short move would have permitted the continued use of Avers Town as a cemetery and would be consistent with a similar settlement shift about the same time that is documented archaeologically along the east side of the river. There, excavations at the Old Town site suggest that it too was abandoned around 1800, and the Catawba occupation at New Town, located about a mile upriver, appears to have begun shortly before that time. These shifts in settlement would have consolidated the Catawba population in a relatively small area on opposite sides of the river that was more isolated and removed from encroaching white settlement along and within the reservation boundary. Unlike Lady Liston, who was able to travel by carriage to Avers Town and then on to Charlotte, visitors to the Catawbas in the early nineteenth century, such as Calvin Jones (1815), had a more arduous journey off the bettertraveled roads that traversed the reservation.

A combination of archaeological and ethnohistorical evidence also sheds light on the nature of houses, households, and community spatial organization at Ayers Town. Given the truncated character of the site due to surrounding impacts upon the landscape from soil erosion and earlier road construction activities, it is not possible to estimate the overall size of Ayers Town in terms of physical layout. The area excavated, covering 3,400 m², appears to encompass the heart of the town; however, this settlement almost certainly contained additional outlying houses. An analysis of the spatial arrangement of cultural features identified at the site, presented in Chapter 5, posited a settlement plan comprised of 12 structure localities organized into five residential complexes, with a mortuary precinct containing three small cemeteries and another structure. These residential complexes are interpreted as the physical remains of individual households. and they, as well as the cemeteries, are oriented along both sides of a "vacant" corridor that runs from southeast to northwest through the site. This corridor, which did not contain any historic Catawba pit features, is interpreted as a probable location of a contemporary wagon road. Given the Catawbas' practice of settling along existing roads — documented archaeologically at New Town and depicted cartographically on maps showing Catawba Town just prior to the Revolutionary War — it is reasonable to assume that additional households would have been situated along this corridor beyond the limits of the excavation. In fact, a few contemporary artifacts (i.e., Catawba potsherds, wrought nails, and sheet brass) were found by UNC

archaeologists about 100 m northwest and more than 200 m south of the site while conducting reconnaissance surveys.

A few structures were defined by clusters or alignments of postholes. While some of these may represent domiciles, they most likely represent less permanent constructions such as sheds or arbors. Domestic houses largely are represented by clusters of cellars or storage pits that lack surrounding postholes, and these feature arrangements are interpreted as evidence as sub-floor storage facilities within log houses. In most instances, large, refuse-filled pits — provisionally identified as soil borrow pits dug to provide clay for construction purposes — are located nearby. Henrietta Liston observed that two kinds of houses were present at Ayers Town. All were constructed of cribbed logs, and while some had end chimneys and fireplaces, others which she regarded as more traditional had central hearths but apparently lacked chimneys. The presence of circular storage pits and sub-rectangular storage or cellar pits in separate household areas is taken as evidence for the differences in house types noted by Liston.

A comparison of archaeological evidence at Ayers Town and Old Town suggests possible differences in community layout. Whereas the houses at Ayers Town appear to have been tightly clustered along a wagon road, those identified at Old Town through both excavation and reconnaissance survey were more widely scattered along an ancient terrace flanking the river. And, it is not clear how or if they were aligned to existing roads. At both of the cabin loci that have been excavated at Old Town, cabins contemporary with Ayers Town were superimposed upon earlier house seats dating from the 1760s and 1770s. No evidence of wall or central support posts was found, and the sub-floor storage facilities from both periods of occupation at Old Town were deep, straight-sided, rectangular or sub-rectangular cellars. Houses at New Town also were widely scattered along upland ridges, and while most houses did not have subfloor pits, one had a sub-floor cellar similar to those found at Old Town. In contrast, most of the sub-floor storage facilities found at Avers Town were circular or small sub-rectangular pits with straight or expanded walls. Pits with these morphological characteristics were observed archaeologically at 1750s Nassaw, where they were placed around a central hearth within rectangular, post-in-ground structures. Similar pits also were found at Weyapee and Charraw Town, both of which are contemporary with Nassaw. Overall, these comparisons suggest that the people living at Avers Town held more traditional views regarding house construction and village pattern than those living at Old Town and later New Town.

Ayers Town and Old Town are more similar in other aspects of material culture. Artifact collections from post-Revolutionary War contexts at both sites are dominated by plain, Catawbamade coarse earthenware fragments from mostly European-style vessels such as cups, plates, bowls, pans, and jars. Vessels from both sites have similar rim forms, and decorations, when present, consist mostly of the application of red pigment along the vessel lip. While it is tempting to view this pottery-making industry as largely directed toward an external market, the contexts in which most vessel fragments were found indicate that they were made for domestic use by Catawba families. This should not be surprising since those vessels made to be sold or traded would not occur archaeologically at Ayers Town or Old Town. The best evidence that potters from these contemporary Catawba towns were also engaged in the production and sale of their wares to surrounding farms and plantations lies in the presence of Catawba wares in those contexts and the fact that by this time period all Catawba potters produced wares familiar to Euroamericans in both form and function. Other artifact classes, from Euroamerican-manufactured ceramics and cookware to horse tack and clothing fasteners, all indicate that Catawbas in the late eighteenth century had choices and needs as consumers that were generally similar to their Euroamerican neighbors. This also is evidenced by surviving contemporary store ledgers, which indicate the variety of other perishable or consumable goods used by Catawbas at Ayers Town and Old Town but which have not survived in the archaeological record. These range from dry goods, including a variety of textiles, clothing, and sundries, to gunpowder, flour, and salt. However, in some instances Catawbas used those manufactured goods in ways, different from their Euroamerican neighbors, which allowed them to assert their distinctive ethnicity and heritage, and these practices also are reflected in the artifacts recovered from Ayers Town. For example, red sealing wax was employed as a material for decorating pots rather than to seal letters; sheet brass and silver were used to fashion distinctive forms of jewelry; and glass beads were used create beadwork on clothing that almost certainly reflected traditional designs and ideas.

The Ayers Town site is one of a small number of archaeological sites in the York-Lancaster county area of South Carolina that document the history of the Catawba Indian Nation during the colonial and early post-colonial era. And, through archaeological investigation it has provided a rich body of information for interpreting the Catawba condition during the last two decades of the eighteenth century. Historic Catawba sites are extremely fragile and in recent years have become increasingly threatened by commercial and residential development, and the expansion of infrastructure necessary to support those developments. While a few important sites have been identified and investigated archaeologically, others already have been lost without adequate documentation, and many more almost certainly will soon be destroyed. The South Carolina Department of Transportation's Highway 5 bridges replacement project, while unavoidably impacting the Ayers Town site, has insured through the site-wide recovery of important archaeological data and the steps taken to protect the significant and sensitive archaeological remains that still exist there, that the site will continue to be a significant contributor to our understanding of Catawba history and heritage.

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Appendix A

MAPS, ILLUSTRATIONS, AND DESCRIPTIONS OF ARCHAEOLOGICAL FEATURES AT AYERS TOWN



MAPS LOCATING ARCHAEOLOGICAL FEATURES





N

0

Meters

Feature 97

Map 3





DESCRIPTIONS AND ILLUSTRATIONS OF ARCHAEOLOGICAL FEATURES

Feature 1 (center at 868.29R208.27) (Figure A.1)

Feature 1 was a charred corncob-filled pit located within Structure Locality 1 at the eastern edge of the site. Excavations revealed a generally oval pit that measured 24 cm long by 21 cm wide and approximately 12 cm deep. Feature 1 contained a thin (1–2 cm) layer of dark brown (Munsell 10YR 3/3) silty clay loam that covered a dense deposit of carbonized material. Excavation of this six-liter deposit revealed a shallow, straight-sided pit with a roughly rounded base that extended into a patch of granular saprolite. The entire matrix of Feature 1 was flotation processed.

Feature 1 is interpreted as a smudge pit, the most common type of facility documented at Ayers Town. These facilities are typically relatively small, with a high depth-to-width ratio, and are distinguished by evidence of *in situ* burning, including masses of incompletely combusted fuel indicative of an oxygen-starved firing environment. Within historic-era Catawba contexts, such smudge pits probably functioned as facilities used to smudge or soot the interiors of low-fired earthenware vessels as a means of waterproofing (see Binford 1967; Munson 1969). Smudging of Catawba vessels is indicated by Jones (1815) and Mooney (in Holmes 1903:56).

Feature 2 (center at 868.41R209.58) (Figure A.2)

This irregular, ovoid posthole is also located in Structure Locality 1. It measured 29 cm long by 21 cm wide and was approximately 24 cm deep with straight sides and a flat base. The posthole matrix consisted of a single zone of yellowish red (5YR 4/4) silty clay loam, which yielded a single potsherd and numerous small cobbles. The stepped profile of this posthole may represent a small, deep, flat-based posthole within a broader access pit.

Feature 3 (center at 869.17R208.75) (Figure A.3)

Feature 3 was a sub-rectangular storage pit situated at the center of Structure Locality 1. This slightly bell-shaped pit was oriented northwest to southeast and measured approximately 92 cm long by 77 cm wide and 32 cm deep. The pit matrix consisted of three distinct soil zones. Zone 1, which was 11 cm thick, was heavily mottled dark brown (7.5YR 3/4) loamy sandy clay with numerous lumps of unfired potter's clay and high artifact density. Materials recovered from Zone 1 include 239 Catawba potsherds, two English salt-glazed stoneware sherds, one English tin-enameled earthenware sherd, five glass beads, two iron sheet fragments, 10 clay pipe fragments, two steel needles, two lead strips, and two tinware fragments. A large section of a wooden plank was recovered from middle of Zone 1. This plank, which varied from 1–3



Figure A.1. Feature 1 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.2. Feature 2 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.3. Feature 3 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with south half excavated (bottom, view to north).

cm in thickness, may represent an element of the original pit covering. Two 8-liter flotation samples were collected from Zone 1, one from each half of the feature.

The interface between Zones 1 and 2 was irregular yet clearly defined. Zone 2 consisted of strong brown (7.5YR 4/6) loose clayey sand and lacked the mottling that defined Zone 1. Zone 2 ranged in thickness from approximately 11 cm on the eastern side of the pit to 16 cm at its maximum. Material content of the Zone 2 deposit was significantly lower than that of Zone 1. Cultural materials recovered from Zone 2 include 43 Catawba potsherds, a glass bead, a clay pipe, iron sheet fragments, two wrought nail fragments, and a green-glazed creamware sherd, along with egg shell and animal bone fragments. Zone 2 yielded fewer, yet larger potsherds than Zone 1; many of these larger vessel portions are referable to particular vessel types. Excavators retained 15 liters of soil from Zone 2 for subsequent flotation recovery of botanical remains.

The boundary between Zones 2 and 3 was marked by heightened charcoal density. Zone 3 was composed of dark reddish brown (5YR 3/4) clayey sand that was 5–8 cm thick. Relatively few artifacts were recovered from this zone and include nine Catawba potsherds, two glass beads, two English slipware sherds, seven flakes, and several animal bone fragments. The removal of Zone 3 revealed a flat pit base in sterile clay subsoil. Fifteen and a half liters of soil from Zone 3 were retained for flotation processing.

The size and morphology of Feature 3 is consistent with substructure storage facilities documented at the nearby Old Town site (SoC 634), a Catawba settlement



Figure A.4. Feature 4 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

contemporaneous with Ayers Town. Such facilities probably functioned in the short term storage of foodstuffs within the immediate domestic space, but were typically filled with household refuse upon abandonment.

Feature 4 (center at 869.97R208.99) (Figure A.4)

This circular to sub-rectangular pit was located near the eastern edge of the site within Structure Locality 1, within one meter of Feature 3. Feature 4 measured approximately 87 cm across and extended 30 cm into the subsoil. The pit matrix consisted of two distinct deposits. Zone 1 ranged in depth from 5 cm on the west side to 18.5 cm on the east and was composed of dark brown (7.5YR 3/3) loamy sand, mottled with red gravelly clay. Flecks of charcoal and lumps of light greenish gray (10G 8/1) unfired potter's clay occurred throughout this zone. Artifacts recovered from Zone 1 include 148 Catawba potsherds, four glass beads, two Catawba pipe fragments, an English kaolin pipe fragment, a cut silver strip, and five tinware fragments. A 16.5-liter soil sample from Zone 1 was flotation processed for recovery of botanical remains.

Zone 2 consisted of dark reddish brown (5YR 3/4) clay loam and contained a higher density and diversity of artifacts than Zone 1. These materials include 114 Catawba potsherds, a glass bead, three pipe fragments (stone, English kaolin, and Catawba), lead sprue, a tinware fragment, a wrought nail, an iron sheet fragment, an English slipware sherd, and a charred wooden plug [?]. Two 8-liter flotation samples were collected from Zone 2.



Figure A.5. Feature 5 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Removal of the Zone 2 deposit exposed a flat pit base evident against red clay subsoil. The sides of Feature 4 were somewhat bell-shaped in profile, especially along the east edge. The size and shape of Feature 4 suggest it was used a storage facility which was eventually filled with refuse. The sloped Zone 1/Zone 2 interface indicates rapid deposition in close sequence.

Feature 5 (center at 877.83R160.57) (Figure A.5)

Feature 5 was a large circular storage pit located in the northwestern portion of the site in Structure Locality 7. This facility was 80 cm in diameter and extended 33 cm below the base of plowzone. The feature matrix was differentiated as four discrete fill zones. Zone 1, a 10 cm thick deposit, consisted of brown (7.5YR 4/4) silt loam mottled with lighter yellowish soil. Artifacts recovered from the Zone 1 deposit include 58 Catawba potsherds, a cast iron kettle fragment, brass and silver sheet fragments, an English kaolin pipe fragment, a piece of lead sheet, an English salt-glazed stoneware sherd, and a Morrow Mountain type projectile point. Twenty liters of the Zone 1 deposit were collected for flotation processing.

Zone 2 was a more homogenous deposit of brown (7.5YR 4/2) silt loam with flecks of charcoal and lumps of unfired potter's clay. Like Zone 1, this deposit was 10 cm thick and contained relatively little cultural material, including 69 Catawba potsherds, a cut silver strip, a fragment of green bottle glass, and four flakes. Nineteen liters of Zone 2 soil were retained for flotation.

The transition between Zones 2 and 3 was abrupt and marked by heavy concentrations of charcoal, especially on the east side of the pit. Zone 3, a 6-cm-thick deposit, consisted dark brown (7.5YR 3/4) silty loam mottled with lumps of both reddish brown and light gray unfired potter's clay, and contained a substantial amount of ash. This zone sloped upward at the north and west ends of the pit. Zone 3 was particularly artifact-rich, and yielded 75 Catawba potsherds (including a possible burnished pot lid handle), 10 glass beads, an iron Jew's harp, a slipware sherd, a pearlware sherd, two Britannia metal buttons, English kaolin and Catawba pipe fragments, a gunflint, fragments of a tin pillbox, and pewter and iron objects. Zone 3 also produced a 1782 George III (Hibernia) copper halfpence, which fixes a *terminus post quem* for the deposit and informs perspectives on the chronology of the historic Catawba occupation. Because Zone 3 evinced heavy charcoal content, the majority if this deposit (21.5 liters) was flotation processed for recovery of botanical remains.

Below Zone 3, excavators encountered a brown (7.5YR 4/4) loam mottled with strong brown (7.5YR 5/6) and yellowish red (5YR 4/6) clay loam. This zone contained far fewer artifacts, most of which were recovered near the Zone 3/4 boundary. Items found in Zone 4 include 34 Catawba potsherds, six glass beads, a kaolin pipe fragment, a creamware sherd, lead and iron fragments, and the finial from a ground glass stopper. Zone 4 ranged in thickness from 4.5 cm on the west side to 9 cm near east wall. This deposit rested on the base of the pit.

The bottom of the pit was relatively flat but sloped down slightly toward the east. The pit walls were generally straight on the south and west; however, the east and north walls were slightly undercut, giving them a bell-shaped profile.

The interpretation of Feature 5 as a storage pit is based on its overall size, shape, and contents. Zones 1, 2, and 4 contained moderate amounts of cultural debris and refuse, and may reflect gradual pit accumulation. Zone 3, on the other hand, contained large amounts of charcoal and a variety of artifact types, and it suggests a more rapid deposition.

Feature 6 (center at 877.65R161.24) (Figure A.6)

Feature 6 was a small, shallow, oval basin located southeast of Feature 5 within Structure Locality 7. This basin measured approximately 23 cm east–west by 20 cm north–south, and 5 cm deep. The fill was a single deposit of charcoal and strong brown (10YR 4/6) silty clay, and was processed as a 0.5-liter flotation sample. Excavation of this matrix revealed a basin-shaped pit with in-sloping sides and a rounded base. No artifacts were recovered from this feature. While it is likely that Feature 6 represents the base of a severely truncated smudge pit, no charred corn kernels or cob fragments were recovered in the flotation sample.

Feature 7 (center at 860.93R169.94) (Figure A.7)

Feature 7 was a rectangular grave pit located within Cemetery 2, part of the burial cluster containing Feature 132 and Features 135–138. This pit was partially occluded by tree roots; complete exposure of the grave surface revealed a rectangular plan that



Figure A.6. Feature 6 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.7. Feature 7 plan view drawing and photograph of feature top (view to northeast).



Figure A.8. Feature 8 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

measured 208 cm long (oriented northeast to southwest) and 66 cm wide, with welldefined straight edges and distinct corners. The matrix exposed at the top of Feature 7 was mixed and heavily mottled red and yellow clay. Five Catawba potsherds were recovered from the top of Feature 7 as it was cleaned for photography.

The shape, dimensions, and fill characteristics indicate that Feature 7 was a spadecut grave pit, most likely excavated to receive an adult inhumation in coffin. As was the case with all graves defined at Ayers Town, the exposed surface of Feature 7 was photodocumented and the grave pit plan was mapped with a total station.

Feature 8 (center at 882.11R196.97) (Figure A.8)

Feature 8 was part of a loosely defined arcade of postholes (Features 8, 10, 14, 18, 19, and 80–82) located in the northeastern quadrant of the site near Structure Localities 2 and 3. This 26 cm diameter, circular posthole was highly regular, with vertical walls extending 43 cm to a flat base. The posthole matrix consisted of dark brown (7.5YR 3/4) fill that graded into strong brown (7.5YR 4/6) near the bottom. The fill was excavated as a single zone, which yielded an animal scapula, a clay pipe fragment, seven Catawba potsherds, and several other animal bone fragments. A concentration of small pebbles was discovered at the base of the posthole.



Figure A.9. Feature 10 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Feature 10 (center at 882.11R196.97) (Figure A.9)

Feature 10 was part of a cluster of postholes identified as Structure Locality 4. This posthole, which measured 20 cm in diameter and 17 cm deep, was especially well defined, with vertical walls and a flat base. The fill consisted of very dark brown (7.5YR 2.5/3) silty clay loam and contained four Catawba potsherds, three flakes, and a small lump of unfired gray potter's clay (visible at the top of the feature).

Feature 14 (center at 881.69R194.08) (Figure A.10)

This posthole, located between Structure Localities 3 and 4, measured 17 cm in diameter and 11 cm deep, with slightly inward-sloping walls terminating in a flat base. The feature fill was a brown (7.5YR 4/3) clay loam with charcoal flecks. Materials recovered from this feature include six Catawba potsherds and small clumps of unfired red potter's clay. Several unmodified rocks were also incorporated into the fill.

Feature 18 (center at 878.85R199.41) (Figure A.11)

Feature 18, another probable posthole, was also located within the cluster of postholes identified as Structure Locality 4. This circular feature measured 16 cm in diameter and was excavated as a single zone to a depth of 18 cm. The posthole walls were nearly vertical and terminated with a flat base. The Feature 18 soil matrix consisted



Figure A.10. Feature 14 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.11. Feature 18 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.12. Feature 19 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

of red (2.5YR 4/6) clay loam, which yielded one glass bead, two Catawba potsherds, and two fragments of calcined bone.

Feature 19 (center at 881.07R200.19) (Figure A.12)

This trash-filled posthole was located just north of Feature 18, in the posthole cluster identified as Structure Locality 4. Feature 19 was circular in plan and measured approximately 32 cm in diameter and 32 cm deep, with nearly vertical walls and a flat base. The feature matrix was a single zone of brown (7.5YR 4/3) silty clay loam [?] with numerous unmodified cobbles. Artifacts recovered from this context included 27 Catawba potsherds, two glass beads, a brass button, nine fragments of animal bone, and lumps of unfired red potter's clay.

Feature 20 (center at 879.58R189.12) (Figure A.13)

This small, circular posthole measured 16 cm in diameter and 18 cm deep, with slightly tapered walls and a flat base. The posthole matrix was brown (7.5YR 4/3) clay loam with numerous rocks and cobbles. Five Catawba potsherds were recovered from this context.



Figure A.13. Feature 20 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Feature 22 (center at 872.06R192.19) (Figure A.14)

This relatively shallow, charred corncob-filled basin was part of a cluster of cobfilled pits (Features 22–26) located near the center of the site and probably associated with Structure Locality 2. Feature 22 was circular in shape and measured 22 cm in diameter, with inward sloping sides and a flat bottom. The basin fill consisted of a single six centimeter thick zone of burned corncobs and charcoal mixed with brown (7.5YR 4/3) clay loam; all three liters of fill was collected as a flotation sample. Feature 22, like all other charred corncob-filled features, is interpreted as a smudge pit.

Feature 23 (center at at 873.76R193.60) (Figure A.15)

Feature 23 was a circular, charred corncob-filled pit that intruded the west half of another cob-filled pit, Feature 24; both smudge pits are part of a "precinct" of smudge pits near the center of the site. Feature 23 measured 17 cm in diameter and contained a single eight-centimeter-thick zone of charred maize cobs and charcoal lightly mixed clay loam. All fill (five liters) was flotation processed for recovery of botanical remains. Excavation of Feature 23 revealed a shallow, basin-shaped morphology, which probably represents the base of a deeper, but plow-truncated smudge facility.



Figure A.14. Feature 22 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.15. Features 23 and 24 plan view and profile drawings, and excavation photographs: top of features (top, view to north) and excavated features (bottom, view to north).



Figure A.16. Features 25 and 26 plan view and profile drawings, and excavation photographs: top of features (top, view to north) and excavated features (bottom, view to north).

Feature 24 (center at 873.76R193.75) (Figure A.15)

Feature 24, another charred corncob-filled pit, was intruded by Feature 23. Feature 24 was oval in plan, measuring 28 cm by 23 cm, and was 11 cm deep. The pit matrix was excavated as a single zone and the fill, mostly charred cobs mixed with brown (7.5YR 4/4) clay loam, was collected as a 5-liter flotation sample. Two Catawba potsherds were also recovered from this pit. Like Feature 23, this probable smudge pit exhibited a shallow, basin-like form, and it presumably represents the base of a once deeper, but now plow-truncated, facility.

Feature 25 (center at 873.87R192.18) (Figure A.16)

Feature 25 was an ovoid, charred corncob-filled pit located adjacent to Feature 26, and is part of the cluster of smudge pits adjacent to Structure Locality 2. This shallow, basin-shaped facility measured approximately 32 cm by 28 cm in plan and 5 cm in depth. It had sloping sides and a flat base. The fill from Feature 25 was composed largely of yellowish red (5YR 4/6) clay loam with some charred material also present. Three glass beads were also recovered from this context. All the contents of Feature 25 were collected as a flotation sample and totaled 2.5 liters. Feature 25 is interpreted as a smudge pit.



Figure A.17. Feature 27 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with south half excavated (bottom, view to north).

Feature 26 (center at 873.75R192.48) (Figure A.16)

Feature 26 was another charred corncob-filled pit in the cluster of smudge pits located southeast of Structure Locality 2. This oval basin measured 28 cm by 23 cm in diameter and extended 11 cm below the base of the plowzone. The feature fill consisted of burned cob fragments and other charcoal in a matrix of yellowish red (5YR 4/6) clay loam. This matrix also contained a Catawba potsherd and several fragments of fired clay. The fill was recovered as a 6-liter flotation sample.

Feature 27 (center at 890.03R179.72) (Figure A.17)

Feature 27 was a small, shallow, sub-rectangular pit at the center of Structure Locality 6 at the northern edge of the site. This feature measured approximately 59 cm long by 52 cm wide and 9 cm deep. The slightly inward sloping pit walls terminated at a slightly sloping base to create a basin-shaped morphology. Comparable, but deeper, subrectangular pits defined at the contemporaneous Old Town site are interpreted as substructure storage facilities, and Feature 27 may represent a similar, but truncated, substructure "cellar" pit.

The pit matrix consisted of two relatively sterile zones of fill. Zone A, a relatively thin (3.5–4.5 cm) lens of dark yellowish brown (10YR 3/4) silty loam, covered approximately two-thirds of the pit surface. Soil recovered from this stratum was



Figure A.18. Feature 31 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with south half excavated (bottom, view to north).

retained as a 13-liter flotation sample (with the exception of a sample of unfired potter's clay). Zone A yielded only two Catawba potsherds and four stone flakes.

Zone B, which was lighter and more heterogeneous than Zone A, consisted of brown (7.5YR 4/4) silty loam mottled with yellowish brown (10YR 5/8) silty clay loam. This 6-cm-thick zone produced a small, cut sheet silver strip, two flakes, and a few unmodified cobbles.

Feature 31 (center at 871.24R191.37) (Figure A.18)

Feature 31 was a small rock cluster located near the center of the site. The feature consisted of 89 tabular pieces of sandstone set into a shallow (7 cm) oval basin or depression in the subsoil that measured 37 cm long and 30 cm wide. Surrounding the rocks was a yellowish red (5YR 4/6) clay loam soil matrix; no artifacts were recovered from this matrix.

Although this cluster of sandstone fragments resembles rock ovens documented in Archaic and Woodland period contexts in the region, neither the feature matrix nor the underlying subsoil showed evidence of burning, and no charcoal was evident in the surrounding soil. Because this feature exhibits such evidence of considerable leaching and mechanical weathering, it likely predates the historic-era Catawba component and may derive from the Archaic or Woodland period occupations documented at Ayers Town.


Figure A.19. Feature 33 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with south half excavated (bottom, view to north).

Feature 33 (center at 871.71R155.12) (Figure A.19)

Feature 33 was a sub-rectangular pit located at the western edge of the site in Structure Locality 8. This pit measured 97 cm by 93 cm and 48 cm deep, with vertical walls and a flat base. The size and morphology of this feature is consistent with those of intramural storage facilities documented at the Nassaw site (38YK434), a mid-eighteenth century Catawba village. The presence of multiple discrete strata within Feature 33 indicates repeated episodes of refuse disposal filled the pit after its storage function was abandoned.

Feature 33 contained seven discrete fill deposits, designated Zones A–G; only five of these are represented in the midline feature profile view (Figure A.19). Zone A, the uppermost deposit, consisted of approximately 8–9 cm of dark yellowish brown (10YR 3/6) silty clay loam that included four Catawba potsherds, seven glass beads, three flakes, a domed brass tack, and a polished stone fragment. At the base of this zone, small lumps of light yellowish brown (10YR 6/4) potter's clay marked the surface of Zone B. This 20-cm-thick stratum resembled Zone A, with dark yellowish brown (10YR 3/6) silty clay loam that graded to higher silt content toward the base of the zone. Zone B deposits yielded four Catawba potsherds, 16 glass beads, two clear glass fragments, and a silver bell [?] fragment, along with animal bone fragments.

Zone C, apparent after removal of Zone B, consisted of loose, dark yellowish brown (10YR 4/4) clayey silt mottled with red (2.5YR 4/6) clay and charcoal flecks. This wedge-shaped stratum was confined to the southeast portion of the feature and measured

approximately 17 cm thick along the east wall. Zone C contained few artifacts, including five Catawba potsherds, five glass beads, and a piece of rolled lead sheet.

Zone D appeared as a thin (1-7 cm) lens of yellowish red (5YR 4/4) clay loam deposited along the southern wall of the feature. This deposit, which probably represents either sediments washed into an open pit or a partial collapse of the pit wall, contained only a single glass bead. All of this deposit (four liters) was collected for flotation processing.

Zone E, situated beneath Zones B–D, was composed of dark brown (7.5YR 3/4) silty clay mottled with brown (7.5YR 4/4) silty clay. This stratum, which ranged up to 23 cm thick, contained a relatively dense deposit of debris, including 18 potsherds, seven glass beads, an iron rod, a green bottle glass fragment, a kaolin pipe fragment, a lead ball, and a nail fragment.

Zone F appeared as a thin (4 cm) lens of yellowish red (5YR 4/6) and red (2.5YR 4/6) clay below Zone E. This sterile deposit probably represents another episode of pit wall collapse. The basal deposit in Feature 33, Zone G, was dark yellowish brown silty clay approximately 12 cm to 18 cm thick. Zone G contained noticeably more ash than the overlying zones; it also exhibited higher densities of cultural material. Artifacts recovered from this deposit include 20 Catawba potsherds, 26 glass beads, three clear glass fragments, a large tin sheet and disk, a brass thimble, an iron buckle, a gunflint, a lead ball, a piece of rolled lead sheet, a silver wire loop, and a wrought nail.

Feature 36 (center at 868.42R165.10) (Figures A.20 and A.21)

Feature 36 was one of four superimposed, rectangular burial pits located on the west side of the site within Cemetery 3. Feature 36, the southernmost grave in this cluster, measured 185 cm long (north–south) and 47 cm wide at its southern end. Features 39 and 37, which both intrude and postdate Feature 36, obscured a large portion of the north and west edges of this pit. The relatively straight edges and angled corners of the pit probably indicate a spade-cut grave; the rectangular form may have accommodated a coffin burial. The length of the grave pit (185cm; 6 ft) corresponds to adult height, and the pit likely represents the inhumation of a Catawba adult.

The grave fill matrix was mixed reddish brown, yellow, and cream colored clays that were incompletely consolidated. Tests in other areas identified thin, lens-like deposits of cream colored clays at depths greater than one meter below surface, and the presence of such clay in the matrix of Feature 36 indicates a grave depth greater than one meter.

Feature 37 (center at 869.71R165.15) (Figures A.20 and A.22)

Feature 37 was a rectangular burial pit associated with three other burials (Features 36, 38, and 39) in Cemetery 3. Like these other burials, Feature 37 was oriented generally north–south. It measured approximately 195 cm long and 58 cm wide at its widest point. Feature 37 intruded Feature 36 to the south and was intruded by Features



Figure A.20. Tops of Features 36-39 in Sqs. 867-869R165-166 (view to east).



Figure A.21. Feature 36 plan view drawing and photograph at top of subsoil (view to east).



Figure A.22. Feature 37 plan view drawing and photograph at top of subsoil (view to east).

38 and 39 on the north and west, respectively. This pit was identified as a grave of an adult based on its size, morphology, and highly mottled red and yellow clay fill. Like all other grave pits identified at Ayers Town, the uniform edges and squared corners indicate initial preparation with spades or similar digging tools. The rectangular morphology and size of these pits suggest their preparation to receive coffin inhumations. Feature 37 was photographed and mapped.

Feature 38 (center at 870.82R164.95) (Figures A.20 and A.23)

Feature 38 was a rectangular burial pit associated with three other superimposed burials (Features 36, 37, and 39) in Cemetery 3. The surface of Feature 38 was distinguished from Feature 37, which it intruded, based on the presence of dark humus material that appeared to have washed into the pit as its contents settled and voids collapsed. This pit measured 173 cm north–south and 49 cm east–west, and probably is the grave of an adult. The surface of Feature 38 was mapped and photographed.

Feature 39 (center at 869.26R164.50) (Figures A.20 and A.24)

Feature 39 was a rectangular burial pit located in the cluster of superimposed graves in Cemetery 3; this grave intrudes west edges of both Features 36 and 37. Feature 39 measured 186 cm long, 59 cm wide at the north end, and 75 cm wide at the southern end, dimensions indicative of an adult inhumation. The matrix evident in the northern half of Feature 39 is the mixed, incompletely consolidated clay fill characteristic of grave



Figure A.23. Feature 38 plan view drawing and photograph at top of subsoil (view to north).

contexts at Ayers Town. The southern end of Feature 39 exhibits a much darker, organic silt loam that probably represents infilling by the original A-horizon soils (now missing due to erosion) when the coffin collapsed and the grave surface sank.

Feature 40 (center at 845.43R196.13) (Figure A.25)

Feature 40, a circular pit filled with charred corncobs, is one of 13 smudge pits (i.e., Features 40, 57, 58, 65, and 176–184) clustered in a special activity precinct along the southeastern periphery of the village area. This facility measured approximately 32 cm in diameter and 24 cm deep, with straight to outward curving walls and a nearly flat bottom. The feature matrix was almost entirely charcoal and burned organic material with some black (10YR 2/1) sandy silt. All 21 liters of the primary feature deposit were retained for flotation processing. Materials recovered from Feature 40 included seven Catawba potsherds, fragments of burned and calcined animal bone, and a few rocks and pebbles.

Feature 41 (center at 862.73R190.80) (Figure A.26)

Feature 41 was one of 15 burial pits associated with Cemetery 1, located in the south-central area of the site. Feature 41 was situated at the easternmost edge of the cemetery and is notable for its east–west orientation, perpendicular to most of the other



Figure A.24. Feature 39 plan view drawing and photograph at top of subsoil (view to east).



Figure A.25. Feature 40 plan view and profile drawings, and excavation photographs: top of feature (top, view to east) and fill profile with west half excavated (bottom, view to east).



Figure A.26. Feature 41 plan view drawing and photograph at top of subsoil (view to south).

burials in this group. This rectangular feature measured 191 cm long by 50 cm wide, dimensions which indicate an adult inhumation. The eastern end of the pit exhibited mottled clay fill, while the rest of the pit held a more homogenous brown fill (at the subsoil surface), possibly due to collapse after the initial filling. This feature was photographed and then mapped with a total station but not excavated.

Feature 42 (center at 861.69R188.74) (Figure A.27)

Feature 42 was a rectangular burial pit located between Features 41 and 43 at the east end of Cemetery 1. It was approximately 152 cm long and 48 cm wide with distinct, straight edges and heavily mottled clay fill visible at the subsoil surface. Feature 42 was oriented approximately N9°E, an alignment that implies a possible affiliation with the four smaller (subadult?) burials located immediately to the west (Features 43–46). This cluster appears to form a discrete spatial group within Cemetery 1, and is designated Group A. This feature was photographed and then mapped with a total station but not excavated.

Feature 43 (center at 861.60R187.72) (Figure A.28)

Feature 43 was a rectangular burial pit located in Cemetery 1, Group A, between Features 44 and 42. Feature 44 intruded the northwest side of Feature 43. Feature 43 was 96 cm long and approximately 51 cm wide, dimensions which probably indicate the grave of a sub-adult. The fill at the top of the feature was characterized by highly mottled



Figure A.27. Feature 42 plan view drawing and photograph at top of subsoil (view to south).



Figure A.28. Features 43 and 44 plan view drawings and photographs at top of subsoil (view to south).



Figure A.29. Feature 45 plan view drawing and photograph at top of subsoil (view to south).

red and yellow clay which contrasted sharply with the surrounding red clay subsoil. Feature 43 was photographed and then mapped with a total station but not excavated.

Feature 44 (center at 861.80R187.37) (Figure A.28)

This rectangular-shaped pit, which intrudes Feature 43, was located within Group A of Cemetery 1. This grave pit was relatively small (97 cm by 52 cm), and likely represents the grave of a sub-adult. It was similar in size, shape, and orientation to Features 43, 45, and 46; together, these graves appear to represent a plot of subadults interred over a relatively brief period or at least placed in reference to one another.

The plan view of this feature was mapped and photographed as exposed at the subsoil surface.

Feature 45 (center at 861.80R186.51) (Figure A.29)

Feature 45, a small rectangular burial pit within Cemetery 1, Group A, measured 97 cm long by 54 wide. Like adjacent Features 44 and 46, Feature 45 likely represents a sub-adult internment. This feature was photographed and mapped.

Feature 46 (center at 861.85R185.) (Figure A.30)

This small rectangular burial pit was situated at the western edge of Cemetery 1, Group A. It was approximately 102 cm long and 48 cm wide, and oriented N6°E. The feature matrix evident at the top-of-subsoil surface was a mixture of brown silt loam (topsoil) and orange clay that derives from a depth greater than 50 cm below the subsoil surface. The small size of Feature 46 indicates a probable sub-adult inhumation. This feature was photographed and mapped.

Feature 47 (center at 866.98R180.98) (Figure A.31)

Feature 47 was a small rectangular burial pit located at the northwest edge of Cemetery 1. This feature was approximately 95 cm long and 54 cm wide, dimensions which indicate a sub-adult inhumation. It was mapped and photographed.

Feature 47 is arrayed parallel to Features 48, 49, and 50. All are similarly oriented (N22°E–N30°E) and regularly spaced. These graves, along with a parallel row of similarly oriented graves (Features 51–54), constitute Cemetery 1, Group B.

Feature 48 (center at 866.51R181.73) (Figure A.32)

Feature 48, a rectangular grave pit, was located in the northern row of Cemetery 1, Group B. This pit measured 99 cm long by 50 cm wide; the long axis was oriented N24°E. The pit matrix, as observed at the subsoil surface, was heavily mixed red, yellow, and cream-colored clays and brown silt loam (topsoil). The dimensions, morphology, and fill characteristics of this facility indicate a probable sub-adult interment. This feature was mapped and photographed.

Feature 49 (center at 866.31R182.62) (Figure A.33)

Feature 49, another rectangular burial pit, was situated between Features 48 and 50 in Cemetery 1, Group B. This pit measured 181 cm long and 57 cm wide, dimensions consistent with an adult inhumation. The grave orientation was N27°E. The pit fill evident at the exposed surface was strongly differentiated, with mixed red and yellow clay in the northern one-third of the pit, and brown silt loam mottled with red and yellow clay in the remainder. These markedly different fills probably reflect collapse and subsequent refilling of the southern portion of the grave. This feature was mapped and photographed.

Feature 50 (center at 865.65R183.50) (Figure A.34)

Feature 50, a rectangular grave pit located at the eastern end of the northern row of Cemetery 1, Group B, likely represents the grave of a juvenile or small adult. This pit measured approximately 162 cm long and 54 cm wide, and was oriented N30°E. The Feature 50 matrix was brown silt loam mixed with red and yellow clays. This feature was mapped and photographed.



Figure A.30. Feature 46 plan view drawing and photograph at top of subsoil (view to south).



Figure A.31. Feature 47 plan view drawing and photograph at top of subsoil (view to north).



Figure A.32. Feature 48 plan view drawing and photograph at top of subsoil (view to north).



Figure A.33. Feature 49 plan view drawing and photograph at top of subsoil (view to north).



Figure A.34. Feature 50 plan view drawing and photograph at top of subsoil (view to north).

Feature 51 (center at 862.37R184.24) (Figure A.35)

Feature 51 was a rectangular burial pit situated at the eastern end of the southern row of graves in Cemetery 1, Group B. This pit measured 185 cm long and 60 cm wide; the long axis was oriented N26°E. Pit dimensions indicate a probable adult burial. The feature matrix apparent at the surface was varied, with mixed red and yellow clay at the ends and brown silt loam mottled with red and yellow clays in the middle. The larger area with brown silt loam fill likely represents refilling of the grave after the original fill settled with the collapse of the coffin. Feature 51 was mapped and photographed.

Feature 52 (center at 863.78R181.01) (Figure A.36)

Feature 52 was a rectangular burial pit located at the western edge of the southern row of Cemetery 1, Group B. This feature was one of the smaller graves in the cemetery, measuring 102 cm long and 58 cm wide, and it likely represents a sub-adult burial. Feature 52 was aligned N20°E. The surface of the pit contained brown silt loam mixed with yellow clay. Feature 52 was mapped and photographed.

Feature 53 (center at 863.67R182.06) (Figure A.37)

This rectangular burial pit was located between Features 52 and 54 in the southern row of Cemetery 1, Group B. Feature 53 was approximately 183 cm long and 58 cm



Figure A.35. Feature 51 plan view drawing and photograph at top of subsoil (view to north).



Figure A.36. Feature 52 plan view drawing and photograph at top of subsoil (view to north).



Figure A.37. Feature 53 plan view drawing and photograph at top of subsoil (view to north).

wide, and probably is the grave of an adult. The grave pit is oriented N28°E and is closely aligned to Features 51 and 54. The feature fill is primarily mixed clay, with a central area of silt loam representing probable refilling. Feature 53 was mapped and photographed.

Feature 54 (center at 863.08R183.11) (Figure A.38)

Feature 54, a rectangular burial pit located between Features 51 and 53 in southern row of Cemetery 1, Group B, measured 201 cm long by 78 cm wide. It probably represents an adult interment. The long axis of this grave was oriented N26°E. The pit matrix noted at the top of Feature 54 was mixed red and yellow clay with an irregular band of brown silt loam along the central axis. This feature was mapped and photographed.

Feature 55 (center at 877.09R189.50) (Figure A.39)

Feature 55, a large, rectangular pit, was located at the center of the site area; this presumed substructure cellar defines Structure Locality 2. This facility measured 171 cm long (north–south) and 101 cm wide (east–west), but extended only 23 cm below the subsoil surface. Feature 55 had a flat floor with straight vertical walls along the short axis and slightly undercut walls along the long axis. The size and morphology of this feature are consistent with substructure pit cellars documented at late eighteenth and early



Figure A.38. Feature 54 plan view drawing and photograph at top of subsoil (view to north).



Figure A.39. Feature 55 plan view and profile drawings, and excavation photographs: top of feature (top, view to east) and fill profile with west half excavated (bottom, view to east).



Figure A.40. Feature 57 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

nineteenth-century Catawba cabin sites (e.g., Davis and Riggs 2004); however, the relatively shallow depth of this feature is atypical of these food storage facilities.

The Feature 55 matrix was a single, undifferentiated deposit (Zone A) of brown (7.5YR 4/4) silty clay loam mottled with dark yellowish brown (10YR 3/4) silty clay loam and yellowish red (5YR 5/6) clay. This deposit also included small lumps of light yellowish brown (2.5YR 6/3), unfired potter's clay and abundant charcoal fragments. Zone A ranged from 13.5 cm to 21 cm in depth, and the flat pit bottom sloped up 7.5 cm from north to south. Flotation samples totaling 25.5 liters were collected from the feature.

Excavation of Zone A recovered a rich array of artifacts, including 234 Catawba potsherds, a clay dog head effigy, 266 glass beads, five cut silver strips, a brass button, 25 creamware sherds, nine pearlware sherds, two other English sherds, six kaolin pipe fragments, 42 Catawba pipe fragments, a pewter spoon handle, an iron tack, seven nail fragments, and numerous fragments of animal bone.

Feature 57 (center at 845.92R194.35) (Figure A.40)

This circular corncob-filled pit was located at the southeastern edge of the site, part of a cluster of cob-filled pits (Features 40, 57, 58, 65, 176–182) that constitute a special purpose precinct of Ayers Town. Feature 57 measured approximately 22 cm in diameter and approximately 5 cm in depth, and was basin shaped, with inward sloping sides and a flat bottom. The carbonized cobs and charcoal were infiltrated by dark brown



Figure A.41. Feature 58 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

(10YR 3/3) clay loam, which was easily distinguishable from the surrounding strong brown (7.5YR 4/6) clay subsoil. This deposit was excavated as a single zone (two liter volume) and flotation processed for recovery of botanical remains. No artifacts were recovered from this context.

Feature 58 (center at 846.00R193.96) (Figure A.41)

Feature 58 was a large, ovoid, corncob-filled pit located just west of Feature 57 in the cluster of smudge pits at the southern edge of the site. This pit measured 49 cm north–south and approximately 44 cm east–west, and extended 7 cm below the subsoil surface. It had inward sloping sides and a flat base. The relatively shallow depth of Feature 58 (and adjacent Feature 57) indicates probable truncation, presumably by mechanical grading associated with the construction of SC Highway 5, an episode that affected the southernmost edge of the site.

The pit matrix was a mixture of charred cobs, wood charcoal, and dark brown (10YR 3/3) clay loam. The western portion of the pit contained an area of dark yellowish brown (10YR 3/4) clay loam a few centimeters thick that was determined to be a disturbance that intruded the feature. Beneath the charcoal layer, pockets of grayish sand were observed on top of the subsoil, though this deposit did not form a continuous or distinct zone. These deposits produced two Catawba potsherds, a fragment of animal bone, and fragments of fired clay. All soil removed from Feature 58 (15.5 liters) was flotation processed.



Figure A.42. Feature 60 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with west half excavated (bottom, view to east).

Feature 60 (center at 875.90R187.54) (Figure A.42)

Feature 60, located near the center of the site, was a small, oval basin filled with cobbles and cracked rock. This basin measured 61 cm (north–south) by 54 cm (east–west) and was 15 cm deep. It contained 178 quartz cobbles and cracked cobble fragments. The pit edges were not visible prior to excavation, but were defined during excavation by the incidence of rock and slightly softer soil that formed the pit matrix. No artifacts, charcoal, or other organic materials were observed during excavation, but processing of the feature fill (including a 10-liter flotation sample) recovered 12 flakes and a small quantity of charcoal.

No such rock-filled facilities at Ayers Town had clear associations with the historicera Catawba component, and this small hearth or rock oven with its highly weathered matrix likely dates to the earlier Archaic or Woodland period site occupations.

Feature 61 (center at 874.05R155.46) (Figure A.43)

Feature 61, an oval pit with well-defined edges, was located near the western edge of the site. This pit measured 136 cm long by 109 cm wide, and it was 26 cm deep. Excavation of Feature 61 exposed a basin-shaped profile, with inward sloping walls and a flat bottom.

The feature soil matrix consisted of brown (7.5YR 4/4) heavily mottled with dark brown (7.5YR 3/2) silt loam. A noticeably darker halo rimmed the southern and eastern



Figure A.43. Feature 61 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with south half excavated (bottom, view to north).

edges of the pit. A thin wedge or collar of yellowish red (5YR 4/6) and brown (7.5YR 5/3) sandy clay loam was encountered along the wall at 20 cm below the feature surface. This deposit appears to represent an infiltration event (e.g., erosional wash or pit wall collapse) prior to the primary filling episode. The pit deposits yielded a Morrow Mountain Stemmed projectile point, 20 flakes, several fragments of fired clay, and a few unmodified rocks. Flotation samples (totaling 27 liters of soil) were collected from each level in the north and south halves of the pit.

Despite the lack of historic cultural material (such as pottery and glass beads) within Feature 61, this well-defined, minimally weathered pit feature is probably referable to the Catawba site occupation. It is possible that the pit was dug and re-filled before substantial amounts of refuse had accumulated at the site; that is, early in the post-1780 Catawba occupation of the site. Feature 61 is situated near Features 5, 33, and 116, probable substructure storage facilities that would have been dug into house floors. Feature 61 may represent a daub processing facility associated with the initial construction of one or more of those houses. Such features contributed clay soils for daubing the exteriors and chimneys of these structures and served as receptacles for preparation of daub mixtures.

Feature 62 (center at 874.03R154.57) (Figure A.44)

Feature 62 was a small, irregularly shaped disturbance at the west edge of Feature 61. It was approximately 44 cm across with distinct but shallow walls that extended only



Figure A.44. Feature 62 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with south half excavated (bottom, view to north).

3–4 cm in depth. The single zone of fill was similar to that observed in Feature 61 and consisted of strong brown (7.5YR 4/6) compact clayey sand. All of the soil within Feature 62 (15 liters) was processed by flotation. No artifacts were recovered from this feature, and it is unclear whether this disturbance was produced by human activity or natural process. It is provisionally classified as the remnant of a small soil borrow pit.

Feature 65 (center at 846.96R196.88) (Figure A.45)

Feature 65 was an elliptical pit filled with charred corncobs. It was located near the southeastern edge of the site within a cluster of 12 other smudge pits. Feature 65 measured approximately 32 cm long and 17 cm wide; it was excavated as a single zone that was 8 cm thick and which produced a 1-liter flotation sample. This pit exhibited low, vertical sides and a flat base, and probably represents a truncated remnant of a substantially deeper facility.

Feature 66 (center at 872.81R186.57) (Figure A.46)

Feature 66, located near the center of the site, was a small, roughly circular basin about 18 cm in diameter and 5 cm deep, with inward sloping sides. The feature fill, which appeared to have been heavily burned, was mottled loamy clay that ranged from very dark brown (10YR 2/2) to blackish with mottled dark brown (7.5YR 3/4) and dark yellowish brown (10YR 3/6 and 10YR 4/6). Only two lithic flakes were recovered from the fill, which was collected as a 1-liter flotation sample. The size and morphology of



Figure A.45. Feature 65 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

this feature resembles that of many cob-filled smudge pits documented at Ayers Town, and while Feature 66 did not contain charred corncobs, the burned soil matrix is consistent with the basal deposits of many smudge pits.

Feature 67 (center at 868.55R186.81) (Figure A.47)

Feature 67 was a refuse-filled stump hole located just north of Cemetery 1 near the center of the site and within the hypothesized road corridor. The feature surface was an irregularly shaped dark brown (10YR 3/3) stain with brown and strong brown soil on the margins and fragments of Catawba pottery within the matrix. Excavation determined that the feature was a tree disturbance; it measured approximately 87 cm long by 77 cm wide and 47 cm deep, with several root protrusions and a tap root hole. Numerous artifacts were recovered from the stump-hole matrix, including 175 Catawba potsherds, a piece of chewed lead, a pearlware sherd, two lead-glazed earthenware sherds, a green-glazed cream-bodied sherd, and 14 flakes. Such high artifact density indicates a probable intentional refuse deposit (rather than natural infiltration of artifacts into the stump hole). Because all of the artifacts were quite small (i.e., less than 4 cm in diameter), this refuse may represent a secondary deposit of material that had already been subject to trampling.



Figure A.46. Feature 66 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.47. Feature 67 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Feature 68 (center at 866.16R157.16) (Figure A.48)

Feature 68 was located at the western edge of the site adjacent to Structure Locality 8. This feature actually comprises two superimposed contexts: a charred corncob-filled pit superimposed by a shallow basin. At the surface, Feature 68 appeared egg-shaped in plan, with a single zone (Zone A) of compact fine silt that was brown (10YR 5/3) in color and mottled with brownish yellow (10YR 6/6) fill. This basin-shaped deposit measured 105 cm by 83 cm, and was seven centimeters thick. Zone A contained numerous artifacts, including 30 Catawba potsherds, three glass beads, iron sheet and strap fragments, a creamware sherd, and charred corncob fragments. Eight liters of Zone A soil were retained for flotation processing.

Below Zone A was a much smaller circular pit (designated Zone B) that measured 42 cm in diameter and 22 cm in depth. The first 10 cm of Zone B contained a mix of heavily charred wood and corncob fragments, concentrated in the south and west sides of the pit, and fine brown (10YR 5/3) silt fill similar to Zone A. The bottommost 10 cm of Zone B consisted almost exclusively of charcoal, and the flat bottom and in-sloping sides of the Zone B pit were heavily fired. The mixed deposit at the top of Zone B may represent the intrusion of Zone A into the cob-filled smudge pit that comprises the base of Zone B. Artifacts recovered from Zone B include 29 Catawba potsherds, fragments of animal bone and mussel shell, and a piece of bottle glass. Seventeen liters of Zone B soil were collected for flotation; this sample yielded a large volume of charred wood and corncobs.

Feature 68 likely represents several discrete events. First, a relatively deep, narrow pit was excavated, within which a mixture of wood and corncobs was burned in a low oxygen environment, firing the pit walls and floor. Subsequent to this firing event, a broader, shallow basin was dug which truncated and partially intruded the top of the earlier feature. This basin was subsequently filled with refuse, and elements from both contexts became mixed.

Feature 69 (center at 867.67R156.98) (Figure A.49)

Feature 69 was a large, roughly circular, bell-shaped storage pit located at the western edge of the site in Structure Locality 8. This facility measured 138 cm long by 122 cm wide by 61 cm in depth. The pit matrix appeared to contain six distinct soil deposits.

Zone A consisted of strong brown (7.5YR 4/6) silt loam mottled with yellowish brown (10YR 5/4) silt loam with charcoal flecks. This basin-shaped zone, which measured eight centimeters thick, did not extend to the sides of the feature. Zone A likely represents topsoil that settled into the top of the feature as the underlying zones settled and subsided. Artifacts found in this zone include 20 Catawba potsherds, a glass bead, an English tin-enameled sherd, and a projectile point. Underlying Zone A, Zone B was a nine centimeter thick, basin-shaped deposit of dry and compact dark yellowish brown (10YR 4/4) silt loam with large inclusions of yellowish red (5YR 4/6) clay. A dense charcoal lens was noted at the base of this zone that formed an abrupt interface



Figure A.48. Feature 68 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north), fill profile with east half excavated (middle right, view to west), close-up of fill profile showing charred corncobs in pit bottom (bottom left, view to west), and excavated feature (bottom right, view to north).

with Zone C. Ten potsherds were recovered from Zone B, along with a glass bead, an iron pellet, a Catawba pipe stem, three unidentified mammal bones, and a pig tooth.

Zone C, a 17 cm thick deposit of dark yellowish brown (10YR 4/4) silty clay loam with cobbles and inclusions of yellowish red (5YR 5/6) clay, was partially superimposed by Zone B. This deposit contained 37 potsherds, one glass bead, a piece of brass sheet, a wrought nail fragment, pieces of animal bone, and two tabular schist rocks. One of these rocks bears an engraved motif that consists of a rectangle with an internal *crux decussate*, a possible representation of the saltire, or St. Andrew's cross in the flag of Scotland.

Zone D, which contacted both Zones B and C, consisted of compact yellowish brown (10YR 5/4) silty clay mottled with dark yellowish brown (10YR 4/4) silty clay. Part of

this zone was evident at the surface of Feature 69, as were portions of Zones A–C. The base of Zone D was generally basin shaped, with a maximum depth of 42 cm below feature surface. Zone D yielded a variety of artifacts, including 17 potsherds, six glass beads, a pearlware sherd, a glass tumbler base fragment, a wrought nail, two clay pipe fragments, a blue glass button inset, and a gunflint flake.

The fill beneath Zone D, designated Zone E, was darker, less compact, and contained more charcoal than the previous zones. This deposit consisted of brown (7.5YR 5/4) silt loam mottled with yellowish brown (10YR 5/6) silt loam. Zone E also contained large chunks of yellowish red (5YR 5/6) clay including a large wedge of clay that extended from the south side; this deposit may have been the product of pit wall collapse. Zone E ranged in thickness from 11 cm to 22 cm and terminated in a flat base which reached a maximum depth of 50 cm below surface. This zone contained significantly more artifacts than the overlying deposits, including 58 Catawba potsherds, eight glass beads, three creamware sherds, English kaolin and Catawba pipe fragments, a snaffle bit, an iron buckle, silver broach fastener fragments, tinware fragments, lead sprue fragments, and pieces of red sealing wax.

The basal fill zone, Zone F, was dark yellowish brown (10YR 4/4) silt loam with clumps of greenish gray (5GY 6/1) potter's clay and large chunks of charcoal and animal bone. This deposit was very moist with a gummy consistency reflective of its high ash content. The alkaline ash probably contributed to the preservation of bone evident in this zone. Zone F contained a large and diverse assemblage of artifacts, including 50 potsherds, 22 glass beads, 28 clay pipe fragments and two nearly complete pipes, a green bottle glass fragment, a kaolin pipe fragment, numerous iron objects (e.g., key, strap, hinge, nails, and sheet fragments), and several lead artifacts (e.g., ball, disk, rolled sheet, and pellets).

Excavation of Feature 69 revealed the flat base and recurvate walls that produced a bell-shaped (or, more accurately, "spittoon-shaped") cross-section. The flat base of the pit was approximately the same diameter as the surface or mouth of the pit, but a collar or constriction in the pit walls was undercut to the floor level. Such construction expanded the storage capacity at or near floor level and reduced the effective opening of the storage chamber to facilitate closure of the pit. A similar flat-based, "belled" pit (Feature 123) was located two meters west of Feature 69; together, these may represent substructure storage facilities arrayed beneath the cabin of Structure Locality 8.

Feature 72 (center at 884.34R191.55) (Figure A.50)

Feature 72 was a large, roughly oval pit located near the northeastern edge of the site in Structure Locality 3. This basin-shaped feature measured approximately 227 cm by 196 cm in plan, and was 18 cm deep. The pit matrix consisted of four distinct soil deposits (Zones A–D), all evident at or near the feature surface. Two plow scars transected the feature southeast to northwest; these disturbances complicated definition of soil deposits at the feature surface.



Figure A.49. Feature 69 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north), fill profile with northwest half excavated (middle right, view to southeast), close-up of fill profile with northwest half excavated (bottom left, view to southeast), and excavated feature (bottom right, view to southeast).

Zone A, the uppermost deposit, consisted of a thin (5 cm) layer of yellowish brown (10YR 5/4) silty loam with concentrations of large cobbles scattered in several concentrations, though none of these concentrations were visible in the pre-excavation photo at the surface. This deposit contained a moderate amount of cultural material, including 49 Catawba potsherds, three glass beads, two wrought nails, a fragment of green bottle glass, fragments of animal bone, and lithic flakes.

Beneath Zone A, Zone B was represented in all but the northwest and north margins. This zone consisted of yellowish red (5YR 5/6) compact clayey silt with abundant quartz



Figure A.50. Feature 72 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north), fill profile with north half excavated (middle right, view to south), close-up of fill profile with north half excavated (bottom left, view to south), and excavated feature (bottom right, view to north).

pebbles and sparse inclusions of charcoal. This deposit presented a continuous clay cap across most of the feature that averaged 5–10 cm thick, with a maximum 15 cm thickness in the center of the south half. Within portions of this deposit, over half of the volume was quartz pebbles. Artifacts found in Zone B include 44 Catawba potsherds, two glass beads, a clay pipe fragment, a lump of lead, and fragments of animal bone.

Zone C was composed of a thin layer of dark brown (7.5YR 3/3) silt loam with many pieces and chunks of charcoal. Once Zone B was removed, a rich layer of artifacts was observed immediately at the top of Zone C. Several rim fragments of a large Catawba pan, as well as a copper tine, a flattened lead sheet, and lead sprue fragments were evident across the top of Zone C. Other artifacts recovered from this zone include 40



Figure A.51. Feature 73 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with south half excavated (bottom, view to north).

potsherds, five glass beads, an English tin-enameled sherd, and a piece of green bottle glass.

Zone D, a much lighter, uniform yellowish brown (10YR 5/6) silt with few inclusions, was evident around the northern, northeastern, eastern, and southeastern margins of the feature. Like Zone C, Zone D contained a relatively large amount of cultural material, including 56 potsherds, four glass beads, a perforated silver disk, a clay pipe fragment, and an iron wire staple. Zone D also yielded a number of charred corncobs.

Feature 72 likely represents a shallow borrow pit, dug to procure and prepare clay for architectural use, which was eventually filled with trash and sediment. Concentrations of cobbles and pebbles encountered in Zones A and B may represent aplastic components of the original soil matrix sorted from the clay/daub product. It is noteworthy that Feature 72 superimposes Feature 74, an earlier sub-rectangular, slightly bell-shaped pit of moderate depth that may have been a substructure storage facility associated with Structure Locality 3. The inferred sequence suggests reuse of the surface (perhaps to obtain materials for the later structure in nearby Structure Locality 2) after the abandonment of the original construction in Structure Locality 3.

Feature 73 (center at 885.39R189.04) (Figure A.51)

Feature 73 was a large, trash-filled basin located just northwest of Features 72 and 74 in Structure Locality 3. This oval pit measured 152 cm long by 126 cm wide with

insloping sides and a flat base. The pit matrix was approximately 15 cm deep and consisted of a single zone of brown (10YR 5/3) fine silt loam with abundant artifact inclusions. Excavation of Feature 73 recovered 572 potsherds, including several large segments of a folded rim jar. Other cultural materials from Feature 73 deposits include 14 glass beads, three clay pipe fragments, two English lead-glazed sherds, a fragment of iron wire, and a glass button inset, along with animal bone and mussel shell fragments. Like Feature 72, Feature 73 appears to have been a borrow pit originally dug to procure clay for architectural use.

Feature 74 (center at 883.56R190.69) (Figure A.52)

Feature 74 was a small, sub-rectangular, slightly bell-shaped pit intruded by the southwest edge of Feature 72. This pit measured approximately 56 cm by 50 cm and extended 17 cm below the top of subsoil. It was investigated by bisecting it along a northeast-to-southwest line which was extended into Feature 72 so that the interface between the two pits could be documented. The northwest half of the feature was removed first, and two zones of cultural fill were identified. Zone A appeared as a slightly more uniform and darker soil that contained far fewer cobbles than the Feature 72 Zone B fill that intersected it. Zone A consisted of approximately 5 cm of dark yellowish brown (10YR 3/4) sandy clay with several large clumps of potter's clay and contained six Catawba potsherds, a glass bead, and a cut silver strip. Zone B consisted of very homogenous dark brown (7.5YR 3/4) clay loam with small inclusions of unfired gray potter's clay. Zone B contained three potsherds, seven glass beads, a rolled brass cone, and animal bone and tooth fragments. Excavation of the Feature 74 revealed a flat pit base slightly larger than the pit surface, a somewhat bell-shaped cross-section characteristic of the probable subfloor storage pits identified at Ayers Town. Inasmuch as Feature 74 clearly predates Feature 72, it may represent the location of a domestic structure antecedent to borrowing activities reflected by Feature 72 (and, perhaps, Feature 73 as well). Feature 75, located 3.5 m northeast of Feature 74, may have been a second subfloor storage facility within the same domestic structure.

Feature 75 (center at 884.79R192.57) (Figure A.53)

Feature 75 was a small, shallow, basin-shaped rectangular pit located just east of Feature 72 in Structure Locality 3. It measured 52 cm by 44 cm and was 8 cm deep. Feature 75 contained a single undifferentiated deposit (Zone A) of brown (7.5YR 4/4) silty clay loam mottled with yellowish red (5YR 5/6) clay with inclusions of greenish gray (10Y 6/1) unfired potter's clay and charcoal. All soil retrieved from the south half of Feature 75 was flotation processed as a 6-liter flotation sample; the remainder of this deposit was waterscreened through window mesh. Feature 75 deposits contained 25 Catawba potsherds, along with 19 animal tooth and bone fragments.

The size and shape of Feature 75 are consistent with subfloor storage pits documented at the Nassaw (38YK434) and Old Town (RLA-SoC 634) Catawba village sites. Such storage facilities are typically much deeper; the shallow remnant of Feature 75 may be the result of plow truncation and surface erosion.



Figure A.52. Feature 74 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north), fill profile with northwest half excavated (middle right, view to southeast), close-up of fill profile with northwest half excavated (bottom left, view to southeast), and excavated feature (bottom right, view to south).

Feature 79 (center at 882.11R203.76) (Figure A.54)

Feature 79 was a circular, charred corncob-filled pit located at the northeastern periphery of the site, adjacent to the probable post-in-ground structure pattern identified as Structure Locality 4. This smudge pit measured approximately 25 cm in diameter and 8 cm in depth, with inward sloping sides and a rounded bottom. Feature 79 was excavated as a single zone, and all fill was processed by flotation. In addition to charred corncobs, this deposit contained fragments of calcined bone and a flake.



Figure A.53. Feature 75 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with south half excavated (bottom, view to north).



Figure A.54. Feature 79 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.55. Feature 80 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Feature 80 (center at 882.24R202.50) (Figure A.55)

Feature 80 was a probable posthole located in Structure Locality 4. This small cylindrical pit measured approximately 23 cm in diameter and 21 cm in depth, with straight or slightly insloping sides and a rounded bottom. Feature 80 was excavated as a single zone, which consisted of brown clay loam with small lumps of gray potter's clay mixed in; the fill yielded a single flake.

Feature 81 (center at 882.56R202.26) (Figure A.56)

Feature 81, another probable posthole, was located near Features 79 and 80 at the northeastern edge of the site in Structure Locality 4. This small, cylindrical pit exhibited straight sides and a rounded bottom, and measured approximately 20 cm in diameter and 30 cm deep. The single zone of fill consisted of brown clay loam with gray potter's clay inclusions. The only artifacts recovered from this feature were a glass bead and a Catawba potsherd.

Feature 82 (center at 884.29R197.71) (Figure A.57)

Feature 82, a probable posthole, was located at the northern edge of Structure Locality 4. This small, oval pit measured 21 cm by 19 cm in plan, was approximately 15 cm deep, and had straight sides and a flat bottom. Feature 82 was excavated as a single zone, and all fill was waterscreened. The fill consisted of loamy clay with small amounts



Figure A.56. Feature 81 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.57. Feature 82 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.58. Feature 83 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

of potter's clay found throughout. Two Catawba potsherds were found near the top of this feature.

Feature 83 (center at 874.20R209.29) (Figure A.58)

Feature 83 was a very shallow, oval, charred corncob-filled pit that measured 21 cm by 17 cm in plan and was approximately 4 cm deep. The bottom of this pit was basin shaped, with inward sloping sides and a flat base. This feature was located just south of a cluster of soil borrow pits (Features 89–92 and 124) at the eastern edge of the site, and may have been associated with Structure Locality 1. The feature was excavated as a single zone, and all fill was processed by flotation. This matrix consisted of yellowish brown sandy clay mixed with charcoal chunks. Because this feature is markedly shallow by comparison with most cob-filled smudge pits, it may represent only the base of a truncated facility.

Feature 84 (center at 885.91R197.98) (Figure A.59)

Feature 84 was a small, shallow, oval pit with inward sloping walls and a flat base, which was located immediately north of Structure Locality 4. The pit measured 42 cm by 36 cm in plan, 3 cm in depth, and contained a single zone of cultural fill. The pit deposit was a grayish brown clay loam that included charred hickory nut fragments but no artifacts. Feature 84 may represent the bottom of a small storage pit that was severely



Figure A.59. Feature 84 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

truncated by plowing, but its intrusion into extremely cobbly sediments may have limited its utility.

Feature 85 (center at 871.40R209.45) (Figure A.60)

Feature 85 was an very shallow, circular pit situated at the northern edge of Structure Locality 1. This pit measured approximately 20 cm in diameter and 1 cm deep, and evinced a flat base. Feature 85 was excavated as a single zone of loamy clay, and all fill was processed by flotation; no artifacts were recovered from the feature matrix. Based upon the size and morphology of Feature 85, it is likely that this shallow basin represents the base of a severely truncated smudge pit.

Feature 86 (center at 869.57R207.71) (Figure A.61)

Feature 86 was a probable posthole located in Structure Locality 1. This small, circular pit measured approximately 15 cm in diameter and 7 cm deep. It had inward sloping sides and a rounded bottom. A single fill zone consisted of brown silty loam with unfired potter's clay and charcoal inclusions. All fill was waterscreened, and no artifacts were recovered from this context.


Figure A.60. Feature 85 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.61. Feature 86 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.62. Feature 87 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Feature 87 (center at 867.06R207.39) (Figure A.62)

Feature 87, located on the south side of Structure Locality 1, was a circular, charred corncob-filled pit that measured approximately 24 cm in diameter and 3 cm deep. The bottom of this pit was irregular with in-sloping sides. The pit matrix was a single stratum that contained a few charred corncobs mixed with loam; this deposit was consistent in color and content with other cob-filled smudge pits at the site. The pit contents (1.6 liters) were flotation processed *en toto*.

Feature 88 (center at 866.32R207.01) (Figure A.63)

Feature 88 was a circular, charred corncob-filled pit located adjacent to Feature 87 near Structure Locality 1. This pit measured approximately 24 cm in diameter and 5 cm deep, and had inward sloping sides and a rounded bottom. The matrix comprised a single deposit of clay loam mixed with charcoal (including corncobs); this soil (1.9 liters) was processed as a flotation sample.

Feature 89 (center at 876.68R212.09) (Figure A.64)

Feature 89 was a large, irregular, ovoid basin located at the easternmost edge of the site, north of Structure Locality 1. This pit measured 220 cm long by 172 cm wide and ranged up to 42 cm deep below the subsoil surface.



Figure A.63. Feature 88 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

The Feature 89 deposits comprised four distinct soil strata. The two uppermost zones were apparent at the feature surface. Zone 1 was a brown (7.5YR 4/3), cobble-filled sandy loam with a yellowish brown (10YR 5/6) halo (Zone 2) around much of its outside margin. Zone 1 extended across most of the exposed surface of Feature 89 and varied from about 9 cm to 13 cm in thickness. Artifacts recovered from this zone include 106 Catawba potsherds, an unidentified iron object, five English slipware sherds, a hammerstone, a biface, and 19 fragments of animal bone.

Zone 2 consisted of compact yellowish brown (10YR 5/6) sandy clay loam mottled with brown (7.5YR 4/3) sandy clay loam. This mottled fill corresponds to the lighter "halo" noted at the surface of Feature 89. This zone contained far fewer cobbles (and artifacts) than Zone 1, but included more charcoal flecking. Zone 2 varied in thickness from 9 cm to 13 cm. A layer of red clay mottled with lumps of gray potter's clay lined the base of this zone and was most concentrated in the northern part of the feature, while the yellowish brown to brown mottled fill extended throughout the zone in the southern portion. Zone 2 yielded 66 Catawba potsherds, a projectile point fragment, a kaolin pipe fragment, two English slipware sherds, a biface, and a stone core.

Zone 3 was a wedge-shaped deposit of softer, organically rich dark brown (7.5YR 3/4) silt loam restricted to the southern half of the feature and terminating near the center of the pit. The maximum thickness of Zone 3 was 16 cm, and the base of the deposit was defined by a layer of discarded cobbles. This zone contained a few lumps of potter's clay, 96 Catawba potsherds, a glass bead, three kaolin pipe fragments, three slipware sherds, a cut silver strip, and two chipped-stone bifaces.



Figure A.64. Feature 89 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north), cleaning fill profile (middle right, view to west), fill profile with east half excavated (bottom left, view to west), and excavated feature (bottom right, view to west).

Zone 4 was yellowish red (5YR 4/6) sandy clay loam mottled with Zone 3-like dark brown (7.5YR 3/4) silt loam in the northern half. This zone lay beneath Zone 3 in the southern side of the pit and Zone 2 in the north, where the Zone 4 deposit was substantially thicker. The sides of the basin were generally uniform except along the north edge, where a small (30 cm) cavity undercut the wall of the pit by 22 cm. Two large fragments of a wine bottle were located in this side cavity. In addition to these bottle fragments, Zone 4 contained 59 Catawba potsherds, three slipware sherds, a flaked stone end scraper, animal bone, turtle shell fragments, and charcoal.

Excavation of Feature 89 revealed a relatively flat base, though the bottom of the basin became deeper and more uneven at the southern edge where the subsoil was particularly laden with alluvial cobbles. The size, morphology, and location of Feature

89 is consistent with that of probable soil borrow pits (e.g., Features 72 and 73), and Feature 89 may represent a borrow pit and daub processing facility associated with Structure Locality 1.

Feature 89 is situated within a cluster of similar features that may also have been used as clay borrow and/or processing pits. Feature 89 intrudes the eastern edge of Feature 90, and may be intruded by Feature 89a, a sandy oval disconformity at the northeast edge of Feature 89. Because the matrix of Feature 89a appeared somewhat anomalous, and possibly (although unlikely) represents a small grave, it was not fully investigated apart from the Feature 89 excavation. Feature 89a more likely represents another small borrow pit dug into the edge of Feature 89.

Feature 90 (center at 877.32R210.68) (Figure A.65)

Feature 90 was an irregularly shaped basin or complex of basins immediately adjacent to, and intruded by, Feature 89. This feature measured 178 cm long and 104 cm wide, and it contained a single zone of fill composed of brown (7.5YR 4/4) sandy clay loam with minor inclusions. The maximum depth of Feature 90 was approximately 47 cm with the shallowest portion at the northern end. Excavation revealed that the basin had inward sloping sides and an irregular yet rounded bottom. The shape and bottom contours of the feature suggest that it represents multiple, overlapping pits; however, the fill was consistent throughout. The pit matrix was highly uniform, and appears to represent erosional sediment that washed from the upslope (west) side and deposited into the open pit. This deposit contained relatively few artifacts, including 40 Catawba potsherds, an iron bar, two chipped-stone cores, and both calcined and unburned animal bone.

Like Feature 89, Feature 90 probably represents a clay borrow pit associated with Structure Locality 1. In contrast to Feature 89, which received primary disposal deposits, the contents of Feature 90 reflect a natural accumulation process in which the open feature trapped erosional sediments that included a sparse artifact load.

Feature 91 (center at 876.67R209.11) (Figure A.66)

Feature 91 was a large, shallow basin located adjacent to Features 89 and 90. This oval pit measured 190 cm by 166 cm and 19 cm deep (below subsoil surface). The pit matrix consisted of a single deposit of brown (7.5YR 4/3) clay loam (Zone 1), with a small ashy lens (Zone 1a) in the southwest quarter of the pit. Excavation of Feature 91 deposits revealed a basin-shaped pit with inward sloping sides and a relatively flat base.

Artifacts recovered from Feature 91 include 388 Catawba potsherds, nine glass beads, four wrought nails, a fragment of iron wire, two clay pipe fragments, five English sherds (one slipware sherd, three creamware sherds, and one salt-glazed stoneware sherd), five oxidized fragments of green bottle glass, a mussel shell scraper, and three unidentified pieces of iron, as well as fragments of calcined animal bone.

Feature 91 resembles other probable clay borrow pits identified at Ayers Town that are positioned on clays or clay loams suitable for production of daub and which exhibit high width-to-depth ratios (>4:1) and irregular or asymmetrical floor contours.



Figure A.65. Feature 90 plan view and profile drawings, and excavation photographs: fill profile with southeast half excavated (top, view to northwest) and excavated feature (bottom, view to northwest).

This refuse-filled basin was located within a cluster of probable borrow pits (Features 89, 90, 91, and 124) in proximity to Structure Locality 1.

Features 92 and 124 (approximate center at 877.84R208.58) (Figure A.67)

Feature 92, located adjacent to Feature 91, was a thin, irregularly-shaped lens of mixed, artifact-rich fill that overlaid a larger basin-shaped pit (designated Feature 124) and a rectangular grave (Feature 93) which intrudes Feature 124.

Feature 92 measured 119 cm by 81 cm in plan and was only about 1 cm thick. This lens consisted of strong brown (7.5YR 4/6) silty clay mottled with flecks of red clay and contained numerous pebbles and artifacts. This deposit was readily distinguished from Feature 124, which included appreciable quantities of unfired potter's clay, and from Feature 93, which evinced distinctive mottled-clay grave fill. Artifacts recovered from the rich Feature 92 deposit include 150 Catawba potsherds, 19 oxidized bottle glass fragments, a brass button, four glass beads, two creamware sherds, one stoneware sherd, a kaolin pipe fragment, two Catawba clay pipe fragments, a wrought nail, and a mussel shell scraper fragment, as well as charcoal and numerous pieces of mostly calcined animal bone.

Feature 124 was a large, sub-rectangular basin capped by Feature 92. The southwest half of this basin was intruded by Feature 93, a rectangular grave pit which prevented



Figure A.66. Feature 91 plan view and profile drawings, and excavation photographs: top of feature (top right, view to west), fill profile with south half excavated (middle right, view to north), close-up of fill profile (bottom left, view to north), and excavated feature (bottom right, view to north).

excavation of that portion of Feature 124. Feature 124 measured 208 cm long by 130 cm wide, and was approximately 14 cm deep.

Feature 124 contained two distinct soil deposits. Zone 1 consisted of yellowish brown (10YR 5/4) clayey silt and was deepest (at 11 cm) at the eastern edge of the basin. This zone contained the majority of artifacts found in Feature 124, including 135 Catawba potsherds, a creamware sherd, a wrought nail, a modeled clay object, and eight lithic flakes, as well as animal bone fragments and charcoal. The basal portion was subdivided as Zone 2 during excavation, but subsequently recombined as part of the same stratigraphic unit. This lower portion of Zone 1 contained 25 potsherds, a glass bead, and a few fragments of animal bone. Flotation samples totaling 21 liters soil were recovered



Figure A.67. Features 92 and 124 plan view and profile drawings, and excavation photographs: top of features following removal of Feature 92 fill over Feature 93 (top right, view to southeast), C–D fill profile (middle right, view to southeast), A–B fill profile (bottom left, view to southwest), and Feature 124 with northeast half excavated (bottom right, view to southeast).

from Zones 1 and 2. Zone 3 was a redeposited yellowish red (5YR 5/8) clay concentrated in the central and western portions of the feature. This 10 cm thick deposit included relatively few artifacts, such as nine potsherds, one slipware sherd, one pearlware sherd, and an Early Archaic Kirk Corner-Notched projectile point.

Feature 124 resembled nearby Features 89, 90, and 91 in terms of high width-todepth ratio (>4:1), extent, and fill composition. The high clay content and low artifact density in Zone 3 likely reflects the original purpose of this facility as a clay mine and/or daub processing pit used to produce daub for cabin and chimney construction.



Figure A.68. Feature 93 plan view drawing and photograph at top of subsoil (view to southeast).

Feature 93 (center at 877.87R208.01) (Figure A.68)

Feature 93 was a rectangular grave pit that intruded the southwest portion of Feature 124. When first identified, Feature 93 was partially obscured by Feature 92, a thin lens of refuse-laden soil. Once this material was removed, the distinct edges and corners of Feature 93 were evident, revealing a 144 cm long and 58 cm wide grave pit, oriented N33°W. The grave matrix visible at the top of Feature 93 was mixed red and yellow clay, similar to other graves documented at Ayers Town. The dimensions of Feature 93 indicate a probable sub-adult inhumation.

Feature 94 (center at 876.01R208.33) (Figure A.69)

Feature 94 was a small, shallow, sub-rectangular basin that intruded the southwestern edge of Feature 91. This pit measured 69 cm long by 50 cm wide and was 7 cm deep. The pit matrix consisted of dark brown (7.5YR 3/4) clay loam with sparse artifact inclusions. The few artifacts recovered from this context include 15 Catawba potsherds, calcined and unburned animal bone, and a clay pipe fragment.

Feature 95 (center at 887.47R194.86) (Figure A.70)

Feature 95 was a small, refuse-filled stump hole located at the northeast edge of the site near Structure Locality 3. This irregular feature measured 39 cm by 33 cm, with dark brown (7.5YR 3/4) sandy loam fill (with charcoal and ash inclusions) that extended to a depth of 44 cm. This deposit yielded 24 potsherds, one pearlware sherd, a modeled clay



Figure A.69. Feature 94 plan view and profile drawings, and excavation photographs: top of feature (top, view to south) and fill profile with west half excavated (bottom, view to east).



Figure A.70. Feature 95 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.71. Feature 96 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

object, and calcined bone fragments. The lowermost 10 cm of the feature proved to be a naturally-filled root disturbance devoid of artifacts. The sides of Feature 95 sloped inward toward a pointed base, consistent with tree tap root morphology. This feature appears to have been an open stump hole that was filled with refuse during the historicera Catawba site occupation. This disposal pattern is well documented at the site of New Town (SoC 632/635), a Catawba village site located five kilometers north of Ayers Town.

Feature 96 (center at 889.90R191.19) (Figure A.71)

Feature 96 was another small, refuse-filled stump hole located near the northeast edge of the site, 6.5 meters northwest of Feature 95. This oval feature measured 26 cm long by 20 cm wide. It was 31 cm deep, with an irregular, rounded bottom, and the sides sloped inward with several protrusions (root holes?) extending out in different directions. The feature matrix consisted of homogenous brown (7.5YR 3/4) sandy clay and contained 14 potsherds as well as small lumps of unfired potter's clay. Like Feature 95, this was likely an open stump hole at or near the time of the Catawba occupation and was opportunistically used as a trash receptacle.

Feature 97 (center at 882.57R178.92) (Figure A.72)

This small, oval, basin-shaped feature was located in the northwestern quadrant of the site, immediately south of Structure Localities 5 and 6. Feature 97 measured



Figure A.72. Feature 97 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

approximately 34 cm long by 30 cm wide, with fill comprising a single zone of strong brown (7.5YR 4/6) clay loam with charcoal flecks that extended to a depth of 10 cm. The pit edges were well defined, and the sides tapered inward to a rounded bottom. Other than a few small lumps of unfired potter's clay, this feature contained no culturally derived material. This feature appears to be the base of a shallow pit of unknown function.

Feature 98 (center at 887.41R178.69) (Figure A.73)

Feature 98 was a very shallow, circular, charred corncob-filled pit located between Structure Localities 5 and 6. It measured 17 cm in diameter and was approximately 2 cm deep; the bottom of the pit was rounded with in-sloping sides. The matrix consisted of charcoal mixed with red clay, all (0.4 liters) of which was flotation processed. The size, depth, morphology and content of Feature 98 indicate that it is the basal remnant of a truncated smudge pit.

Feature 99 (center at 889.02R181.88) (Figure A.74)

Feature 99, a circular,cob-filled pit located at the northern edge of the site near Structure Locality 6, measured approximately 27 cm in diameter and was 8 cm deep. The base of this pit was relatively flat, with steep in-sloping sides. The matrix of Feature 99 was approximately 75% charcoal (mostly charred corncobs), mixed with strong brown



Figure A.73. Feature 98 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.74. Feature 99 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.75. Feature 100 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

(7.5YR 4/6) sandy clay loam. All of this deposit (5.2 liters) was collected for flotation processing. No artifacts were recovered from the fill.

Feature 100 (center at 880.99R189.21) (Figure A.75)

Feature 100 was a posthole located between Structure Localities 2 and 3. This small, cylindrical pit measured 16 cm in diameter and 21 cm deep, with straight sides and a flat bottom. The posthole matrix was dark brown (7.5YR 3/4), compact, loamy clay that contained a single Catawba potsherd and small pieces of unfired potter's clay (not collected).

Feature 101 (center at 891.97R183.31) (Figure A.76)

Feature 101 was the base of a small, shallow, oval pit located northeast of Structure Locality 6. This basin measured 57 cm by 47 cm, with inward-sloping walls and a rounded, irregular base. The feature matrix was 6 cm of compact dark brown (7.5YR 3/4) loamy clay mottled with yellowish brown (10YR 5/6) soil. This deposit contained both charcoal and fired clay fragments, and the pit bottom appeared discolored from burning. The Feature 101 deposit yielded two pieces of a deer bone and two potsherds.



Figure A.76. Feature 101 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Feature 102 (Figure A.77)

Feature 102 was a large, natural erosional gully at the northwest edge of the site that likely formed either prior to the Catawba occupation of the site or during the early stages of this occupation. It lies along the northern edge of the hypothesized road corridor that runs through the site. The gully headed at 884.0R164.4, then trended northwestward to 889.4R155.8, where it continued beyond the limits of the site excavation. Over the course of this 10-meter long segment, the base of the gully dropped one meter in elevation (a 10% slope), and expanded from less than 30 cm in width to more than 220 cm. Overall depth of the gully base from the present ground surface likewise increased from 33 cm at the gully head to 125 cm at the excavation edge (at 889.4R155.8). The overburden of plowzone and erosional sediments that capped the gully surface (Zone 1) ranged in thickness from 33 cm near the gulley's head to 80 cm at the edge of the excavated area.

Fragments of Catawba pottery were observed across the entire exposed surface of the gully fill. Investigators sampled this deposit by excavating a 0.5 m by 2.0 m exploratory trench at the northwest end of the exposed gully. The northwest wall profile of this exploratory trench, coupled with the more extensive profile created at the edge of the backhoe-stripped area, provided a stratigraphic view of the sediments within the gully and overlying it. This profile revealed several distinct zones of sedimentation. The overlying plowzone deposits and accumulation of sediment by finely lensed sheet wash



Figure A.77. Feature 102 plan view and profile drawings, and excavation photographs: Profile 1 (middle left, view to south), Profile 2 (middle right, view to northwest), Profile 2 after excavation of exploratory trench (bottom left, view to northwest), and recording Profile 2 (bottom right, view to west).

were designated Zone 1. They generally consisted of compact strong brown (7.5YR 4/6) silty sand. Most of this soil was mechanically stripped prior to feature discovery.

Underlying Zone 1 was Zone 2, a deposit composed of dark yellowish brown (10YR 4/6) silty sand. It was thinly and unevenly deposited across the top of the gully. Zones 3 and 4, representing the filled-in gully, were extremely compact strong brown (7.5YR 4/6) silty sand with only subtle differentiation between them. Zone 4 represents the bottommost stratigraphic unit evident in the gully and lies just above the sterile clay subsoil.

Numerous small potsherds and bone fragments were found throughout the zones, and a larger potsherd and a clay pipe fragment were observed at the base of Zone 4. The inventory of artifacts recovered from the waterscreened exploratory trench fill include 259 Catawba potsherds (252 of which were <2 cm in diameter), four glass beads, a lead-glazed sherd, a wine bottle glass fragment, and two other glass fragments.

The goal of the Feature 102 investigation was to gain a better understanding of the site's erosional history and the origin of the deeply buried cultural deposits north of the site which were encountered initially by Legacy Research's shovel testing and by later sampling with 1x1-meter excavation units. Taken together, these investigations demonstrate a high degree of soil erosion perhaps beginning during the site occupation but likely accelerating following site abandonment. The probable cause was the expansion of agricultural production—particularly cotton farming—on the Catawba reservation by white leaseholders during the early nineteenth century. The lack of primary refuse deposits at the base of the gully suggest that it did not exist as a context for trash disposal at the time of the site's occupation. However, the head of the gully does coincide with the edge of a downward-sloping surface to the north and likely constituted a natural edge to the village, much as the terrace edge to the east defined the village's limit in that direction.

The correspondence of Feature 102's location with the northern edge of the hypothesized road corridor, an anomaly defined independently based on low artifact densities, an absence of archaeological features within it, and the alignment of graves adjacent to it, suggests that this feature may represent an artificially created or naturally formed ditch along that road.

Feature 103 (center at 885.82R175.24) (Figure A.78)

Feature 103 was located just south of Feature 108 in Structure Locality 5. This small, circular basin measured approximately 34 cm in diameter and 10 cm deep, with gently in-sloping sides terminating in a nearly flat bottom. The pit fill consisted of dark brown (7.5YR 3/4) loamy clay and contained a large amount of charcoal. While this feature is similar in size and shape to other charred corncob-filled pits interpreted as smudge pits, it contained no burned cobs, nor did it contain any other artifacts. It is provisionally interpreted as a smudge pit.

Feature 104 (center at 876.79R162.15) (Figure A.79)

Feature 104, located near Features 5 and 6 in Structure Locality 6, was a circular, charred corncob-filled pit that measured approximately 26 cm in diameter and 3 cm deep.



Figure A.78. Feature 103 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.79. Feature 104 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

The bottom of this pit was rounded and very irregular with in-sloping sides. The pit fill, which consisted of a single stratum of charcoal with small admixture of dark yellowish brown (10YR 3/4) loamy clay, was processed by flotation. Three Catawba potsherds were recovered from this deposit. Feature 104 is interpreted as the base of a truncated smudge pit.

Feature 105 (center at 887.07R173.88) (Figure A.80)

Feature 105 was a roughly circular, charred corncob-filled pit located near Features 106, 107, and 108 in Structure Locality 5. It measured approximately 28 cm in diameter and was 12 cm deep, with straight, nearly vertical sides and a flat bottom. The single zone of fill, which consisted of burned corncobs (representing 80% of the fill) mixed with very dark grayish brown (10YR 3/2) fine loamy clay, was processed as an 11-liter flotation sample. Two Catawba potsherds recovered while cleaning of top of the feature are assumed to be associated with this context. The fully excavated pit appeared to be roughly square with rounded corners, suggesting that it may have been dug with a spade or square shovel.

Feature 106 (center at 887.93R173.00) (Figure A.81)

Feature 106 was a sub-rectangular pit, one of three such facilities arrayed in Structure Locality 5. Features 106, 107 and 108, which appear evenly spaced and aligned in a square "L" pattern, may represent sub-floor cellars associated with a single dwelling. Feature 106 measured 108 cm by 90 cm in plan and was 18 cm deep with straight-toslightly undercut walls and a somewhat rounded base. Feature 106 appears to have been filled in a single episode with a mixed matrix of dark yellowish brown (10YR 4/4) sandy silt loam and yellowish red (5YR 5/8) clay loam inclusions, with charcoal fleck and small lumps of light gray potter's clay. A shallow disturbance, probably a tree intrusion, was evident at the surface of the feature.

Artifacts recovered from this pit include 32 Catawba potsherds, a glass bead, a fragment of brass wire, three pieces of lead shot, three fragments of clear flat glass, a chipped-stone core, and a hammerstone. Ten liters of soil from the west half of the feature were flotation processed for recovery of botanical remains.

Feature 107 (center at 889.00R174.63) (Figure A.82)

Feature 107 was a sub-rectangular pit located adjacent to Features 106 and 108 in Structure Locality 5. This facility measured 104 cm by 94 cm in plan and 33 cm deep, and it had a slightly bell-shaped profile with a flat base. This probable subfloor storage pit held four deposits. Zone 1, which consisted of dark brown (7.5YR 3/3) sandy clay loam mottled with strong brown (7.5YR 4/6) sandy clay loam, was approximately 15 cm thick near the center of the pit. It contained small-to-medium sized charcoal chunks and numerous artifacts, including 208 mostly small Catawba potsherds, six glass beads, a wrought nail, four clay pipe fragments, an iron pin, a lead-glazed sherd, and two unidentified iron objects. A 10-liter flotation sample was retained from this zone. Zone



Figure A.80. Feature 105 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.81. Feature 106 plan view and profile drawings, and excavation photographs: top of feature (top, view to west) and fill profile with east half excavated (bottom, view to west).



Figure A.82. Feature 107 plan view and profile drawings, and excavation photographs: top of feature (top, view to west) and fill profile with east half excavated (bottom, view to west).

2, also visible at the surface of the feature, appeared in the southwest corner and along the eastern margin of the pit. This deposit was brown (7.5YR 3/4) sandy clay loam mottled with red (2.5YR 4/6) clay. Zone 2 yielded few artifacts (i.e., 46 potsherds and 2 clay pipe fragments). Twelve liters of soil from Zone 2 were collected for flotation processing.

The basal zone, Zone 3, consisted of strong brown (7.5YR 3/3) soil. This 18 cm thick stratum was subdivided into two subzones (3a and 3b) based on differences in texture. The upper portion, Zone 3a, was predominantly sandy loam, while the lower Zone 3b was silt loam. The division between these subzones corresponded to a thin lens of charcoal.

Both subzones of Zone 3 contained abundant deposits of primary refuse, including 600 Catawba potsherds, large pig bones, 39 glass beads, three brass buttons, two strips of cut silver, an iron horse bell, lead shot and sprue, five wrought nails, and a glass fragment. Substantial amounts of unfired potter's clay were recovered from Zone 3b near the bottom of the pit. Eleven-liter and 14-liter flotation samples were collected from Zones 3a and 3b, respectively.

Feature 107 is interpreted as a sub-floor cellar pit that functioned together with, or in sequence with, Features 106 and 108. Deposits within Feature 107 likely represent at least two distinct events or episodes. The lower deposits in Zone 3 represented primary refuse deposits; Zone 3b included substantial amounts of well-sorted ash, which may indicate direct infiltration from a nearby interior hearth or chimney. Masses of unfired potter's clay in Zone 3, especially near the bottom of the pit, may reflect storage of raw



Figure A.83. Feature 108 plan view and profile drawings, and excavation photographs: top of feature (top right, view to west), fill profile with east half excavated (middle right, view to west), exposing wine bottle at top of Zone 2 (bottom left, view to southwest), and excavated feature (bottom right, view to west).

clay for pottery production. Zones 1 and 2, which include much lower densities of smaller, more fragmentary artifacts, likely relate to the final, intentional filling or "topping off" of the cellar with sweepings and other secondary deposits.

Feature 108 (center at 887.44R175.16) (Figure A.83)

Feature 108 was a sub-rectangular pit located adjacent to, and aligned with, Features 106 and 107 at the northwest edge of the site in Structure Locality 5. This probable subfloor cellar pit measured 80 cm by 71 cm and contained two soil deposits that totaled 19 cm in depth. Zone 1 was a thin (~3 cm) lens of strong brown (7.5YR 4/6) silty sand with small inclusions of yellowish red (5YR 5/8) clay and charcoal flecks. This stratum was present only in the southern third of the pit and contained little cultural material other than three Catawba potsherds and a glass bead. The remainder of the pit matrix (Zone 2) was dark brown (7.5YR3/4) silty sand with clumps of potter's clay and large charcoal inclusions. This deposit included 70 Catawba potsherds, a brass button, 35 glass beads, two cut silver strips, two cut lead strips, two fragments of brass sheet, lead sprue, a fragment of blue glass, seven lead-glazed sherds, one creamware sherd, one tin-enameled sherd, two clay pipe fragments, and four gunflint flakes, as well as numerous fragments of animal bone. In addition, Zone 2 yielded a complete wine bottle that had been placed on its side near the southeastern wall. Flotation samples of 2.8 liters and 11 liters were processed from Zones 1 and 2, respectively.

Excavation of Feature 108 revealed a flat pit floor that inclined gently from south to north. The pit walls were slightly undercut, creating an expanded storage compartment relative to the pit opening—a morphology shared with other probable pit cellars identified at Ayers Town.

Feature 109 (center at 885.38R168.15) (Figure A.84)

Feature 109 was a shallow, oval basin located about five meters southwest of Structure Locality 5. This facility measured 124 cm by 104 cm in plan and was about 14 cm deep, with inward sloping sides and a rounded, somewhat irregular bottom. The pit contained a single zone of compact yellowish brown (10YR 5/4) sandy loam mixed with yellowish red (5YR 5/6) clay loam inclusions. Excavation of Feature 109 recovered two large Catawba potsherds, a piece of iron, small bits of daub, calcined bone fragments, and charcoal. A 12-liter sample of the feature matrix was flotation processed.

Feature 109 resembles other probable borrow pits documented at Ayers Town in terms of dimensions and morphology. The relatively low artifact density observed in the Feature 109 matrix may reflect a fill event early during the historic-era Catawba occupation, before heavy debris loads accumulated on the site surface.

Feature 110 (center at 858.83R193.94) (Figure A.85)

Feature 110 was a very shallow (3–4 cm), oval pit located southeast of the main cemetery near Feature 155. This small pit was heavily truncated by plowing or erosion, and the western half of the feature was practically obliterated. The remaining matrix was dark brown (7.5YR 3/4) silt loam with small lumps of light yellowish brown (2.5YR 6/4) and light greenish gray (10G 8/1) potter's clay and a few cobbles. Feature 110 contained only four Catawba potsherds.

Feature 111 (center at 858.85R187.69) (Figure A.86)

Feature 111 was a rectangular burial pit located at the south edge of Cemetery 1. This pit measured 201 cm long and 51 cm wide, and apparently represents an adult inhumation. The alignment of Feature 111 (N4°E) approximates those of Cemetery 1, Group A (N6°E-N11°E), located less than two meters to the north. The fill in the top of this feature, like most of the other rectangular pits interpreted as graves, was characterized by a heavily mixed clay fill with brown silt loam probably representing



Figure A.84. Feature 109 plan view and profile drawings, and excavation photographs: top of feature (top, view to west) and fill profile with east half excavated (bottom, view to west).



Figure A.85. Feature 110 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with east half excavated (bottom, view to north).



Figure A.86. Feature 111 plan view drawing and photograph at top of subsoil (view to north).

post-subsidence refilling. Feature 111 was photographed and mapped.

Feature 112 (center at 864.08R176.49) (Figure A.87)

Feature 112 was a small, oval pit that measured 32 cm by 28 cm in plan and approximately 29 cm deep. This probable posthole is one of a group of six such pits (Features 112, 113, 114, 120, 125, and 126) that comprise a small (2.0 m x 2.4 m) rectangular structure pattern located immediately west of Cemetery 1 and designated Structure Locality 9.

The matrix of Feature 112 was a single deposit of dark brown (7.5YR 3/4) loam, with mottling was near the edges and at the bottom. Several small to medium sized tabular rocks were uncovered at the bottom near the center of the feature; these likely represent shims wedged in the posthole to support the post. Eleven small Catawba potsherds were also recovered from the posthole.

Excavation of Feature 112 revealed a flat based pit with vertical walls, with the exception of a slight step on the southwest side. This step may represent the initial excavation of a larger pit to provide better access to prepare a deeper, more closely fit receptacle for a post.

The structure pattern to which Feature 112 belongs is unique at Ayers Town; no other definitive, symmetrical patterns were identified at the site, although another larger



Figure A.87. Feature 112 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature with rocks *in situ* (bottom, view to north).

post grouping is represented by Structure Locality 4. Structure Locality 9, located between Cemeteries 1 and 2, is not clearly associated with any domestic area; no storage pits were located within or around this building, although a small group of three cob-filled pits is situated immediately south of the structure. Neither do the cemeteries intrude or encroach upon this structure, a pattern which may indicate contemporaneity of the building with the cemeteries—and a possible function with respect to the cemeteries.

Feature 113 (center at 864.30R174.30) (Figure A.88)

Feature 113 was another posthole located two meters west of Feature 112 in Structure Locality 9. At the exposed surface, this oval pit measured 47 cm by 33 cm, and it was approximately 13 cm deep to the base of the upper basin or step at the southwest side. The posthole continued downward as a cylindrical, straight-sided pit that was 30 cm in diameter. The flat base was 38 cm below the posthole surface.

The stepped portion of the pit contained strong brown (7.5YR 4/6) clayey sand, while the lower, cylindrical section of the posthole held dark brown (7.5YR 3/4) silty sand, respectively, though it was noted that the postmold had less clay in it. Fill from the step and cylindrical portions of the pit were waterscreened separately. Four Catawba potsherds were recovered from the stepped area; 17 potsherds and a glass bead were found in the posthole proper. At the base of the posthole were several tabular stones, similar to those in Feature 112; these are probable post shims or wedges. Feature 113



Figure A.88. Feature 113 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature with rocks *in situ* (bottom, view to north).

represents the southwest corner post for the small, rectangular structure that defines Structure Locality 9 (Features 112, 113, 114, 120, 125, and 126).

Feature 114 (center at 866.71R174.85) (Figure A.89)

Feature 114 was an oval, stepped posthole at the northwest corner of Structure Locality 9 that measured approximately 37 cm by 28 cm in plan and extended approximately 36 cm to a flat bottom. The posthole matrix fill consisted of brown (7.5YR 4/3) sandy loam mottled with brown (7.5YR 4/4) clay loam. A more homogenous (brown [7.5YR 4/3] sandy loam) 16-cm diameter stain within this posthole represented a straight-sided postmold that reached the base of the posthole. This feature was excavated as a single context, and the posthole and postmold soils yielded 21 Catawba potsherds and several animal tooth fragments.

Feature 115 (center at 874.42R163.78) (Figure A.90)

Feature 115 was a rectangular burial pit located in Cemetery 3, about two meters north of the main cluster of graves (Features 36–39, 117, and 119). The pit measured approximately 116 cm long and 46 cm wide, and likely is the grave of a sub-adult. Feature 115 had heavily mottled clay fill and distinct pit edges, similar to other contexts identified as graves. In contrast to the predominant north–south orientation of most Cemetery 3 graves, Feature 115 is oriented east–west (N96°E). This feature was photographed and mapped.







Figure A.90. Feature 115 plan view drawing and photograph at top of subsoil (view to east).

APPENDIX A

Feature 116 (center at 870.97R157.59) (Figure A.91)

Feature 116, in Structure Locality 8, represents two distinct contexts: a subrectangular storage pit intruded by a charred corncob-filled pit. The sub-rectangular storage pit measured 47 cm by 45 cm and had a maximum depth of about 30 cm. It had a bell-shaped profile and a flat but sloping base inclined east to west. This facility contained two distinct fill deposits. Zone 1, the upper 11 cm of pit fill, was a very compact yellowish brown (10YR 5/6) silt loam mottled with light yellowish brown (10YR 6/4) silt loam. Artifacts recovered from Zone 1 included 35 Catawba potsherds, two glass beads, a bottle glass fragment, and a lead ball.

Zone 2, a 15–19 cm thick stratum of dark yellowish brown (10YR 4/4) silt loam with inclusions of yellowish red (5YR 5/8) clay chunks and potter's clay, was the initial fill deposit in Feature 116. It contained 69 potsherds, 14 glass beads, and fragments of iron wire and iron sheet. Thirteen-liter and 6-liter flotation samples were processed from Zones 1 and 2, respectively.

A charred corncob-filled pit intruded the surface of Zone 2 in the west half of the pit. This deposit (in reality, a separate facility) was designated Zone 3. It was about 23 cm in diameter and 14 cm deep, but did not reach the base of the larger pit. Excavation of Zone 3 recovered charred cobs and kernels, as well as two potsherds. This context had relatively straight sides and a flat base, with fired surfaces indicative of *in situ* burning of the pit contents. The Zone 3 deposit (10.3 liters) was flotation processed for recovery of botanical materials.

Feature 116 is interpreted as a small storage pit that was repurposed as a smudging chamber with the installation of a cob-filled pit. After this probable storage pit was abandoned and partially filled with soil and refuse (Zone 2), Zone 3 (the cob-filled facility) was excavated into this initial deposit, and fueled with corncobs that were then burned in place to produce smoke. The upper, unfilled portion of the storage pit would have functioned as a chamber for controlling smoke and oxygen flow, and may have served as a containment chamber for pottery or other materials subject to that smoke. After completion of the smudging process, the upper void of Feature 116 was completely filled with the Zone 1 deposit, capping the smudge pit.

Feature 117 (center at 869.60R167.41) (Figure A.92)

Feature 117 was one of six burial pits clustered in Cemetery 3 near the western edge of the site. Similar to nearby Features 36–39 and 119, Feature 117 has a north–south (N7°E) orientation. This rectangular pit measured 203 cm long by 52 cm wide and likely is the grave of an adult. The fill evident at the surface of this feature was mixed yellow and reddish brown clays, consistent with other burial contexts at the site. This burial intrudes Feature 118, a possible pit. Feature 117 was photographed and mapped.



Figure A.91. Feature 116 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north), fill profile to top of Zones 2 and 3 with south half excavated (middle right, view to north), fill profile with south half completely excavated (bottom left, view to north), and excavated feature (bottom right, view to north).

Feature 118 (center at 869.40R167.76) (Figure A.92)

Feature 118 was an oval pit largely intruded by Feature 117, a grave located at the eastern edge of Cemetery 3. The observed portion of Feature 118 measured 101 cm long (north–south); the width was occluded by Feature 117. Feature 118 was not excavated.

Feature 119 (center at 868.82R163.08) (Figure A.93)

Feature 119 was one of nine burial pits that constitute Cemetery 3 at the western end of the site. This rectangular grave measured 187 cm long by 72 cm wide, with sharply



Figure A.92. Features 117 and 118 plan view drawing and photograph at top of subsoil (view to north).



Figure A.93. Feature 119 plan view drawing and photograph at top of subsoil (view to north).



Figure A.94. Feature 120 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

defined edges and a mixed clay matrix. Like most graves in Cemetery 3, this adult-sized grave pit is oriented approximately north–south (N4°E). Feature 119 was photographed and mapped.

Feature 120 (center at 865.40R174.63) (Figure A.94)

Feature 120 was a posthole in the rectangular building pattern—Structure Locality 9—bordered by Cemeteries 1, 2, and 3. This cylindrical, flat-based pit measured approximately 30 cm in diameter and 35 cm deep. The posthole fill consisted of yellowish brown (10YR 4/6) sandy loam that became more mottled with depth. Excavation of Feature 120 recovered six Catawba potsherds and a tabular stone, which may represent a shim inserted to brace the post.

Feature 121 (center at 863.20R158.27) (Figure A.95)

Feature 121 was a circular, charred corncob-filled pit located south of Structure Locality 8 near in the western edge of the site. This pit measured approximately 34 cm in diameter and 11 cm deep, with vertical sidewalls and a flat base. The pit fill consisted of charred corncobs and sticks, and fragments of calcined bone mixed with brown (10YR 4/3) silt loam; a small lump of unfired potter's clay was observed near the top of the feature. This entire deposit was processed by flotation.



Figure A.95. Feature 121 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Feature 122 (center at 863.81R152.77) (Figure A.96)

Feature 122 was a large, oval basin at the southwest edge of the site, about four meters southwest of Structure Locality 8. This pit measured 156 cm long, 108 cm wide, and 21 cm deep, with gently sloping sidewalls that graded into a rounded base. Feature 122 contained a single deposit of dark yellowish brown (10YR 3/4) sandy clay loam mottled with yellowish brown (10YR 5/6) sandy loam and numerous large lumps of red (2.5YR 4/8) sandy clay. Ten liters of soil from this deposit were processed by flotation; the remainder was waterscreened. Relatively few artifacts were present in the deposit; recovered materials include 17 Catawba potsherds, 14 glass beads, one wrought nail, a gunflint flake, lead sprue fragments, and a few poorly preserved fragments of bone.

Like other large basins located at the site's periphery, Feature 122 probably represents a clay borrow pit used to obtain and process material for architectural daub. The proximity of this facility to Structure Locality 8 may reflect association with the constructions in that area.

Feature 123 (center at 868.13R154.34) (Figure A.97)

Feature 123 was a large, deep, circular pit located in Structure Locality 8 at the western edge of the site. This probable sub-floor storage facility was about 90 cm in diameter and 58 cm deep, with a bell-shaped profile and a flat base. It is situated about



Figure A.96. Feature 122 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with north half excavated (bottom, view to south).

two meters west of Feature 69, another probable sub-floor storage pit. Both were positioned under the same building; their contemporaneity is uncertain.

The Feature 123 matrix consisted of nine distinct deposits. The uppermost zones, Zones 1 and 2, were both visible at the exposed feature surface. Zone 1 was a deposit of compact yellowish brown (10YR 3/6) silt loam, with yellow clay inclusions. This eight centimeter thick, basin-shaped deposit covered most of the feature surface and contained 25 potsherds, three glass beads, a fragment of green bottle glass, a creamware sherd, and animal bone fragments.

Zone 2 consisted of yellowish brown (10YR 3/4) silt loam and was visible along the eastern edge of the pit surface. The base of Zone 2 sloped significantly to the west, where it had a maximum thickness of about 29 cm. Like Zone 1, this deposit was extremely compact with few associated artifacts. Twenty-six Catawba potsherds, a bottle glass fragment, two wrought nails, a piece of lead sheet, two chipped-stone cores, and two unidentified iron objects were found in Zone 2.

Zone 3 was a lens of red clay loam that spanned the pit below Zone 2 and capped the underlying fill zones. It was thickest at the eastern wall and sloped downward toward the west edge of the pit. Artifacts recovered from Zone 3 include 30 potsherds, two glass beads, two brass button fragments, a small brass staple, a lead strip, a burnishing stone, a clay pipe fragment, and several iron fragments.

Zone 4 was the uppermost of six relatively uniform strata of primary refuse deposits. This zone was five centimeter thick and did not extend to the eastern wall of the pit.

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Figure A.97. Feature 123 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north), fill profile with south half excavated (middle right, view to north), close-up of fill profile (bottom left, view to north), and excavated feature (bottom right, view to north).

Zone 4 consisted of brown (7.5YR 4/4) silt loam with a heavy admixture of ash, charcoal, and abundant animal bones. This deposit also contained 44 Catawba potsherds, 17 glass beads, two tin-enameled sherds, two fragments of a table knife, a silver-plated brass cufflink, a lead ball, a cast iron vessel fragment, a clay pipe and seven other pipe fragments, a lump of red sealing wax, and a silver wire loop. Because this stratum contained rich deposits of well-preserved animal bone and botanical materials, all 64 liters of soil were flotation processed.

Zone 5, another rich deposit, was flotation processed *en toto* (38 liters). This five centimeter thick stratum consisted of very ashy, dark brown (7.5YR 3/4) silt loam with abundant animal bones. This deposit yielded 35 potsherds, 38 glass beads, a brass Jew's

harp, a pearlware sherd and an unglazed English pot base, three wrought nails, a glass bottle fragment, unfired potter's clay, lead sprue and a cut lead strip, a piece of tinware sheet, a clay pipe fragment, and a polished stone.

Zone 6 was a 4–7 cm thick layer of moderately compact, dark yellowish brown (10YR 3/4) silt loam that separated the ashy Zone 5 deposits from the relatively clean Zone 7. Zone 6 contained heavy concentrations of charcoal and abundant artifacts, especially glass beads. The deposit was collected as a 46-liter flotation sample. Zone 6 contained 633 glass beads, 34 Catawba potsherds, six wrought nails, a rolled tin sheet, an iron rod, four clay pipe fragments, a kaolin pipe fragment, a bone knife handle, and various other lead and glass artifacts. Animal bones recovered from this zone were remarkably well preserved, a function of the neutralizing properties of ash in the deposit.

Zone 7 was a 5–8 cm layer of dark yellowish brown (10YR 4/4) silt loam with fine charcoal flecking. Soil recovered from this stratum was waterscreen processed, and yielded 29 potsherds, 36 glass beads, an English Jackfield sherd, a rolled tin sheet fragment, a silver broach fragment, two glass bottle fragments, and a cut lead strip.

Zone 8 was a mixed deposit of dark yellowish brown (10YR 3/4) loam with pockets of ash and charcoal, and ranged from 5 to 7 cm in depth. All fill (37 liters) was processed by flotation. Artifacts from Zone 8 include 21 potsherds, 14 glass beads, a wrought nail fragment, a mussel shell scraper, a small black Catawba clay pipe and an additional pipe fragment, an unidentified pewter object, a creamware sherd, and a chipped-stone disk. This zone also contained unfired potter's clay, charcoal, and animal bone.

Zone 9, a deposit of brown (7.5YR 4/4) sandy loam, was similar to Zone 8 except that its matrix was much more compact. This bottom-most zone was approximately 7 cm thick and contained 70 potsherds, 19 glass beads, a single piece of creamware pottery, five wrought nail fragments, two straight pins, a mussel shell scraper, three clay pipe fragments, a fragment of green bottle glass, a strip of cut silver, two brass buttons, and a lead ball. The entire 91 liters of fill from this zone was processed by flotation.

The Feature 123 deposits probably represent two distinct modes in the filling of the pit. The lowermost six zones are relatively thin, flat, uniform, trash-filled deposits that appear to represent accretional primary refuse disposal, probably within the confines of the presumed superstructure dwelling. These level, uniform strata may have presented stable surfaces suitable for reuse of the pit as a storage facility. The uppermost three zones (Zones 1–3) of Feature 123 are markedly different in character. These deposits appear to have been the products of mass filling episodes, with relatively low trash content relative to the amount of soil. These upper deposits probably mark the complete abandonment of pit function for Feature 123.

Feature 124 (See description for Feature 92)

Feature 125 (center at 865.26R176.60) (Figure A.98)

Feature 125 was a posthole that formed part of the six-post rectangular structure pattern in Structure Locality 9. This small oval pit measured 31 cm by 26 cm in plan and 29 cm deep, with straight sides and a rounded bottom.


Figure A.98. Feature 125 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Feature 125 contained a single deposit of brown (7.5YR 4/3) silty sand with medium-to-small inclusions of strong brown (7.5YR 4/6) sandy clay. This deposit produced eight small potsherds, and a large, tabular rock that was encountered about 21 cm below the feature surface. Similar tabular rock shims were found in five of the postholes that define Structure Locality 9.

Feature 126 (center at 866.41R176.71) (Figure A.99)

Feature 126 was a probable posthole located at the northeast corner of Structure Locality 9. This shallow, circular pit was approximately 35 cm in diameter and depth of 22 cm deep, and appears to have been heavily truncated by a modern disturbance so that only the bottom of the feature was present. It had in-sloping, tapered sides, a rounded bottom, and a stepped profile, similar to other postholes in this pattern (i.e., Features 112, 113, and 114). The posthole fill consisted of dark brown (7.5YR 3/4) loam and contained a single Catawba potsherd.

Feature 127 (center at 866.02R158.95) (Figure A.100)

Feature 127 was a circular, charred corncob-filled pit with vertical side walls and a flat bottom. The pit measured approximately 23 cm in diameter and 19 cm deep, and the pit base evinced burned soils indicative of *in situ* firing. The feature matrix consisted of burned corncobs mixed with brown (7.5YR 5/6) silt loam, consistent in color and



Figure A.99. Feature 126 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.100. Feature 127 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.101. Feature 128 plan view drawing and photograph at top of subsoil (view to north).

content with other cob-filled smudge pits at the site. All of this deposit (nine liters) was flotation processed to recover botanical remains.

Feature 128 (center at 864.32R162.00) (Figure A.101)

Feature 128 was a rectangular grave pit located at the southern edge of Cemetery 4, about four meters southwest of the main cluster of graves (Features 36–39, 117, and 119). This pit measured 107 cm long by 51 cm wide, with clearly defined edges, and likely represents the grave of a sub-adult. The top of the pit appeared as a dark rectangular stain where humic topsoil had collapsed (or was refilled) into the grave. Mixed clay fill was visible along the north edge, and the fill at the south edge was loose and friable. The N11°W orientation of Feature 128 aligns with that of other Cemetery 3 graves, including Feature 37 (N7°W), Feature 38 (N10°W) and Feature 129 (N16°W). Feature 128 was mapped and photographed.

Feature 129 (center at 862.35R164.81) (Figure A.102)

Feature 129 was a rectangular burial pit located about four meters southeast of Feature 128, and similarly oriented (N16°W). This pit measured 183 cm long by 53 cm wide and likely is the grave of an adult. The fill at the top of the pit was mostly dark brown topsoil (either soil collapsed or refilled into the pit after subsidence), with bands of mixed orange clay along the northeast and part of the southwest edges. The edges were



Figure A.102. Feature 129 plan view drawing and photograph at top of subsoil (view to north).

distinct and well defined. Feature 129 was photographed and mapped.

Feature 130 (center at 862.63R160.27) (Figure A.103)

Feature 130 was a probable posthole located south of Structure Locality 8 at the southwestern edge of the site. This small, circular pit measured approximately 26 cm in diameter and 42 cm deep with straight sides and a rounded bottom. The posthole fill consisted of brown (7.5YR 4/3) silty sand with inclusions of yellowish red (5YR 4/6) sandy clay lumps, and included a large Catawba potsherd, small fragments of animal bone, and charcoal.

Feature 131 (center at 861.92R174.38) (Figure A.104)

Feature 131 was a circular, charred corncob-filled pit located northeast of Cemetery 2, due south of Structure Locality 9, and adjacent to two other cob pits, Features 133 and 134. This facility measured approximately 28 cm in diameter and 9 cm deep, with vertical sidewalls and a flat base. The pit fill consisted of large chunks of mostly carbonized wood mixed with charred corncobs and yellowish brown (10YR 5/4) silty sand; all eight liters of this deposit were collected as flotation sample.



Figure A.103. Feature 130 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.104. Feature 131 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.105. Feature 132 plan view drawing and photograph at top of subsoil (view to northwest).

Feature 132 (center at 859.02R171.78) (Figure A.105)

Feature 132 was the northernmost of four adjacent rectangular grave pits (Features 132, 135, 136, and 137) aligned northwest–southeast within Cemetery 2. All are interpreted as graves of adults. This pit measures approximately 185 cm long and 48 cm wide, and probably represents an adult burial. The matrix of Feature 132 (as observed at the exposed feature surface) consisted of mixed clay fill at each end with dark brown silt loam in the center; the central portion of the pit was partially obscured by a large tree root. Feature 132 was mapped and photographed.

Feature 133 (center at 860.62R175.20) (Figure A.106)

Feature 133 was a circular, charred corncob-filled pit, located due south of Structure Locality 9 and adjacent to two other smudge pits, Features 131 and 134. This feature measured approximately 31 cm in diameter and 13 cm deep, with vertical walls and a flat base. The feature fill (10 liters) contained charred corncobs on top of wood charcoal, mixed with brown (7.5YR 4/4) silty sand. In addition to the carbonized material, four Catawba potsherds were recovered from Feature 133.



Figure A.106. Feature 133 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Feature 134 (center at 860.68R177.03) (Figure A.107)

Feature 134 was a relatively shallow, circular, charcoal-filled pit located 2.75 m east of Feature 133. This flat-based basin measured approximately 27 cm in diameter and 5 cm deep, and contained 4.5 liters of wood charcoal mixed with brown (7.5YR 4/4) silty sand. One Catawba potsherd was recovered from this feature.

Feature 135 (center at 858.08R170.93) (Figure A.108)

Feature 135, a rectangular grave pit, was located in adjacent (and parallel) to Features 132 and 136 in Cemetery 2. Most of the Feature 135 surface was obscured by the base of a large oak tree, but the grave is estimated to be approximately 176 cm long and 61 cm wide, and probably represents an adult inhumation. The fill evident at the surface of the grave was mixed clay, clearly differentiated from the undisturbed subsoil with crisp boundaries. Feature 135 was mapped and photographed.

Feature 136 (center at 857.20R170.23) (Figure A.109)

Feature 136 is a rectangular grave pit located in Cemetery 2, between Features 135 and 137. Feature 136 measured approximately 189 cm long and 57 cm wide, and likely represents an adult burial. Much of the surface of the pit is brown silt loam, which probably represents refilling of the grave pit after initial subsidence. Mixed clays around



Figure A.107. Feature 134 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.108. Feature 135 plan view drawing and photograph at top of subsoil (view to northwest).



Figure A.109. Feature 136 plan view drawing and photograph at top of subsoil (view to northwest).

the pit margins represent the original fill of the pit after inhumation. The surface of this feature was photo-documented and mapped.

Feature 137 (center at 856.35R169.57) (Figure A.110)

Feature 137, a rectangular grave pit located adjacent to Feature 136 in Cemetery 2, was intruded upon by a small, roughly circular pit, the posthole for a modern steel gate post set in concrete. Feature 137 measured 198 cm long and 59 cm wide, with well-defined edges and characteristically mixed clay fill. The length of this pit indicates a probable adult interment. Feature 137 was mapped and photographed.

Feature 138 (center at 859.95R168.12) (Figure A.111)

Feature 138 was a large, rectangular grave pit with sharp corners and distinct edges located southwest of Feature 7 in Cemetery 2. It measured 198 cm long by 58 cm wide, with mixed clay fill at the ends and a deposit of brown silt loam in the center. This pit likely represents the grave of an adult. Feature 137 is oriented N21°E, roughly parallel to Feature 7 (N25°E) but transverse to the other graves in Cemetery 2. Feature 138 was photographed and mapped.



Figure A.110. Feature 137 plan view drawing and photograph at top of subsoil (view to northwest).



Figure A.111. Feature 138 plan view drawing and photograph at top of subsoil (view to northeast).



Figure A.112. Feature 139 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with south half excavated (bottom, view to north).

Feature 139 (center at 860.47R167.18) (Figure A.112)

This irregularly shaped basin was located adjacent to Feature 138 at the edge of Cemetery 2. Feature 139 was approximately 125 cm long, 126 cm wide, and 15 cm deep, with gently sloping side walls that terminate in a flat base. This pit intruded a preexisting stump hole, which was partially excavated in the course of investigation of Feature 139.

Feature 139 contained four distinct deposits. Zones 1 and 3 were both visible from the feature's surface; however, Zone 3 appeared only as a crescent-shaped deposit of extremely compact and dry soil around the north and east edges of the pit, and was only defined as a distinct zone in the feature profile.

Zone 1 consisted of dark brown (10YR 3/3) silt loam with abundant charcoal and artifacts. Nine liters of this deposit were retained for flotation processing. Material recovered from Zone 1 include 144 Catawba potsherds, one piece of pearlware pottery, five Catawba clay pipe fragments, a crushed brass bell, and pieces of animal bone.

Zone 2, which lay beneath both Zones 1 and 3, was a mixture of dark brown (10YR 3/3) silt loam and red (2.5YR 4/6) clay loam with charcoal flecks. Zone 2 ranged from 4–7 cm in thickness and contained 39 Catawba potsherds, one glass bead, a pearlware sherd, and a few fragments of animal bone. A twelve-liter sample of this deposit was collected for flotation.

Zone 3 was an extremely compact and dry deposit of yellowish brown (10YR 5/4) silt loam that formed an arc of soil approximately 9 cm deep in the northern and eastern

parts of the feature. Stratigraphically, Zone 3 superimposed Zones 2 and 4. Though its relationship with Zone 1 is not entirely clear, Zone 3 may represent a root mold or other intrusion into this feature. Zone 3 yielded 50 Catawba potsherds, a glass bead, a brass object with woven fiber still attached, one piece of lead shot, two clay pipe fragments, and animal bone. Nine liters of Zone 3 soil were flotation processed.

Zone 4, a three centimeter thick deposit of red (2.5YR 4/6) clay loam and dark brown silt loam, lined the bottom of the basin. Eleven potsherds and bits of charcoal were the only cultural material found in this zone. Beneath Zone 4, a large, dark soil stain intruded the base of the feature. The matrix within this root disturbance was very soft, dark yellowish brown (10YR 4/4) sandy silt loam. This sterile root disturbance appears to predate the construction of the Feature 139 basin.

The function of Feature 139 is unclear. This shallow basin resembles probable clay borrow pits arrayed around the perimeter of the site, but the relatively thin, level deposits within Feature 139 contrast with the massive dump deposits in most such facilities. In addition, Feature 139 is situated interior to the band of habitation and activity areas that surround the central plaza.

Features 140, 190, and 191 (center at 853.5R174.0) (Figures A.113 and A.114)

Features 140, 190, and 191 comprise a group of superimposed pits located near the south edge of the site between Cemetery 2 and Structure Locality 10. When initially uncovered by mechanized stripping, they appeared as a single, large, roughly oval disturbance measuring 250 cm northeast to southwest by about 150 cm northwest to southeast. Potsherds, animal bone, and charcoal were observed across the northeast half while the southwest half contained mottled clay but very few artifacts. Although it was initially suspected that multiple, intrusive pits were represented, subsequent troweling and photography failed to reveal clear pit edges within the disturbance. After a period of heavy rain and a second troweling, three pits were identified and mapped. The northeastern most pit, subsequently designated Feature 191, measured about 100 cm in diameter and consisted of a dark yellowish brown silt loam (10YR 4/4) with pockets of ash. It was intruded on the southwest side by a much larger oval pit that measured 140 cm by almost 200 cm. The top fill of this pit, designated Feature 190, consisted of a dark brown silt loam (10YR 4/3) with scattered concentrations of ash and charcoal. Most of the southwestern half of Feature 190 was intruded by Feature 140, a pit whose uppermost fill consisted of a dark yellowish brown sandy silt (10YR 4/6), surrounded by a band of mixed dark yellowish brown silt and clay (10YR 4/4) and very pale brown silty clay (10YR 8/4).

In order to clarify the stratigraphic relationships among the three intrusive features, a northeast-to-southwest profile line was established that bisected the centers of all three pits. Feature 140, being the most recent, was excavated first; Feature 190 was excavated next; and Feature 191 was excavated last. For each feature, the southeast half was excavated first by fill zones. The profile was then cleaned, photographed, and mapped. Finally, the northwest half was excavated, also by fill zones.



Figure A.113. Features 140, 190, and 191 plan view and profile drawings.

Feature 140. Feature 140 was a large oval pit that measured 124 cm by 150 cm in plan and 55 cm in depth. The walls tapered slightly to an oval, flat bottom that measured 105 cm by 137 cm. The pit contained seven fill zones that were designated Zones 1–7. The top five zones were relatively thin lenses that did not extend across the entire feature; Zones 6 and 7 comprised the bulk of the pit fill and also contained the majority of artifacts. Each zone, and its contents, is described below.



Figure A.114. Features 140, 190, and 191 excavation photographs: top of features prior to excavation (top left, view to north); fill profile with south halves of Features 140 and 190 excavated (top right, view to northwest); close-up of fill profile in Feature 140 (middle left, view to northwest); Feature 140 after excavation (middle right, view to northwest); Features 140 and 190 after excavation (bottom left, view to northwest), and fill profile of Feature 191 with southeast half excavated (bottom right, view to northwest).

Zone 1 was a thin lens of dark yellowish brown sandy silt (10YR 4/6) at the top center of the pit. It was about 45 cm wide but less than 2 cm thick. All fill from Zone 1 was waterscreened, and the following artifacts were recovered: a glass bead, 13 Catawba potsherds, five fragments of animal bone, two pieces of fired clay, and charcoal.

Zone 2 was a mixture of dark yellowish brown silt and clay (10YR 4/6) and very pale brown silty clay (10YR 7/3). It lay directly beneath Zone 1, measuring 122 cm in diameter and having a maximum depth of 14 cm. Fill from Zone 2 was waterscreened

and yielded 42 Catawba potsherds, three lithic flakes, fragments of animal bone, and charcoal.

Zone 3 was about 8 cm thick and lay directly beneath Zone 2 in the southwest half of the feature. It was about 87 cm in diameter and consisted of dark brown silt (10YR 3/3) with ash and charcoal. All 58 liters of this fill was processed by flotation. In addition to carbonized plant remains, this zone yielded 68 Catawba potsherds, 2 tinware sheet fragments, five fire-cracked rocks, a flake, and numerous fragments of animal bone and fired clay.

Zone 4 was a lens of fill beneath Zone 3 whose composition was very similar to that of Zone 2 but with the addition of pockets of ash and charcoal. It measured about 100 cm across and had a maximum depth of 10 cm. All fill was waterscreened except for a 10liter sample which was processed by flotation. Zone 4 contained a greater number and variety of artifacts than the overlying zones, including 44 Catawba potsherds, one creamware sherd, four bottle glass fragments, an iron knife blade, a modeled clay object, a flake, charcoal, and fragments of animal bone and fired clay.

Zone 5 was a thin, discrete lens of dark brown silt (10YR 3/3) with ash, situated beneath Zones 3 and 4 in the northeast half of the feature. It was about 70 cm in diameter and 5 cm thick. All fill was processed as two 12-liter flotation samples. In addition to carbonized plant remains, 20 Catawba potsherds and fragments of fired clay and animal bone were recovered.

Zone 6 was the first fill zone encountered during excavation that extended across the entirety of Feature 140. At the pit edges, it extended from the top of the feature to a depth of 16–20 cm. The base of Zone 6 was relatively level at about 28 cm below the pit surface, and it had a maximum thickness of about 15 cm. Zone 6 also was the first fill zone in which numerous artifacts were encountered. The overall fill matrix was dark brown silt (10YR 3/3) with scattered concentrations of ash and charcoal, and relatively large amounts of animal bone and pottery were found near the top of the zone, just beneath the base of Zone 5. Twenty liters of fill were processed as two flotation samples: the remaining fill was waterscreened. Artifacts recovered from Zone 6 include 274 Catawba potsherds, a creamware sherd, 14 bottle glass fragments, 10 iron sheet fragments, a copper-alloy ring, two glass beads, eight clay pipe fragments, a gunflint flake, a wrought tack, an Early Archaic projectile point, three flakes, numerous animal bones and bone fragments, five mussel shells, fired clay fragments, and several wads of unfired potters clay. Among the recovered faunal remains are horse and pig mandibles, and a complete turtle carapace. The pottery fragments include large sections of two Catawba pans and four bowls.

The basal fill zone, Zone 7, was about 25 cm thick and rested on a flat pit floor. Although the fill matrix at the top of Zone 7 was similar to that of Zone 6, except for a much lower density of artifacts, it very quickly changed to sticky brown silt (10YR 5/3) with patches of very pale brown silt (10YR 7/4), and contained significantly more cobbles and fire-cracked rock. It also contained numerous artifacts, including 243 Catawba potsherds (including large sections of a pan and a jar), a complete Catawba bowl (in 11 pieces), nine pearlware plate fragments and a stoneware sherd, six bottle glass fragments, two clay pipe fragments, a pottery burnishing stone, an iron sheet fragment, a glass bead, a large chipped-stone disk, a tabular grinding stone, seven flakes, and numerous animal bones and fragments (including a cow mandible and a deer antler). Carbonized plant remains were recovered from two 10-liter flotation samples and the remaining waterscreened fill.

The original function of Feature 140 is unclear. While it might have served as a storage pit, its inward-sloping walls contrast with other probable storage facilities at Ayers Town which have bell-shaped or straight-sided profiles. And unlike most other identified structure localities, the Feature 140/190/191 complex is not situated near ancillary facilities such as clay borrow pits and smudge pits.

When abandoned, Feature 140 was filled in two episodes. The lower two fill zones—Zones 6 and 7—were deposited fairly rapidly with household waste (i.e., food scraps, broken pottery vessels, and other debris) during initial filling of the pit and comprise almost 60% of its total contents. The kinds and quantities of artifacts from these two zones are very similar, and the juncture between them was not distinct. The remainder of the pit appears to have been filled sporadically as the lower fill contents settled, due to the decomposition of organic materials and soil compression, and created a depression. These sporadic episodes are represented by Zones 1 to 4, which appear to contain hearth cleanings and excess soil but relatively few artifacts.

Feature 190. Feature 190 was a large oval basin that originally measured about 140 cm by 200 cm in plan and 20 cm in depth. About 60% of this feature was removed by the creation of Feature 140, which intrudes it. The remaining 40% of the feature indicate that it had vertical-to-sloping sides and a flat bottom, without a distinct break between the two. Its fill contains two zones of similar composition, which were not distinguished during excavation of the southeast half. Zone 1 was characterized as dark brown silt loam (10YR 4/3) with scattered concentrations of ash and charcoal. At about 10 cm below the top of the feature, Zone 1 transitioned into a compact, light brownish gray silt (10YR 6/2), which was designated Zone 2.

A 13-liter sample of fill from Zone 1 in the northwest half was processed by flotation; the remaining fill was waterscreened. Artifacts from mixed Zone 1 and 2 fill in the southeast half include 56 Catawba potsherds, one slipware sherd, charcoal, and fragments of animal bone and mussel shell. Zone 1 fill in the northwest half contained 30 Catawba potsherds (including a large pode), a piece of bottle glass, seven clay pipe fragments, a piece of a brass bracelet, a straight pin, a lead sheet, charcoal, and fragments of fired clay, animal bone, and mussel shell; Zone 2 contained 23 Catawba potsherds, a brass eye screw, charcoal, and fragments of animal bone.

Feature 190 is interpreted as a probable borrow pit for obtaining and processing clay used for architectural daub. It predates Feature 140 and therefore may not be associated with the same household. Upon abandonment, the pit served as a receptacle for trash. The midden-like character of the fill, the lack of a well-defined stratigraphy, the generally small size of the artifacts (i.e., only nine of 116 potsherds were larger than 4 cm in diameter), and the general lack of conjoining pottery fragments suggest that it was filled gradually with general village refuse.



Figure A.115. Feature 141 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with south half excavated (bottom, view to north).

Feature 191. Feature 191 was a small, oval basin that originally measured about 100 cm by 65 cm in plan and 8 cm in depth. About 20% of this feature was removed by the creation of Feature 190, which intrudes it. The remaining 80% of the feature indicate that it had sloping sides and a flat bottom. It contained a single zone of fill, which was dark yellowish brown silt loam (10YR 4/4) with scattered pockets of ash and charcoal.

All fill was waterscreened except for a 15-liter sample which was processed by flotation. Artifacts found in Feature 191 include 55 Catawba potsherds, three pearlware sherds, four bottle glass fragments, a chipped-stone disk, an unidentified iron object, a clay pipe fragment, charcoal, and fragments of animal bone. The original function of Feature 191 is unclear, but the midden-like fill characteristics are similar to Feature 190, which suggest that it was filled with general village refuse.

Feature 141 (center at 853.59R187.17) (Figure A.115)

Feature 141 was a small square pit located at the southern edge of the site in Structure Locality 10. This facility measured 49 cm by 47 cm, but was only eight centimeters deep. The feature matrix was dark brown (7.5YR 3/2) silt loam mottled with strong brown (7.5YR 4/6) silt loam and contained lumps of light greenish gray (10Y 7/1) potter's clay. Eleven liters of this deposit were flotation processed; the remainder was waterscreened. Artifacts recovered from this context include 12 Catawba potsherds, a green-glazed teacup foot-ring, and two lead-glazed sherds, along with fragments of calcined bone, and charcoal. Feature 141 is similar in size and shape to Feature 27,



Figure A.116. Feature 142 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with south half excavated (bottom, view to north).

located on the opposite side of the site; both are interpreted as the bases of small subfloor storage pits.

Feature 142 (center at 856.01R160.69) (Figure A.116)

Feature 142 was a large, oval, refuse-filled depression at the southwestern edge of the site. This probable tree disturbance appears to have been filled with refuse during the historic Catawba occupation of Ayers Town. The feature measured 111 cm by 93 cm in plan, with a single deposit that extended 39 cm below the feature surface. This deposit consisted of grayish brown (10YR 5/2) silt loam that graded into yellowish brown (10YR 5/4) silt loam, and included 19 Catawba potsherds, a fragment of silver wire, and fragments of animal bone, charcoal, and fired clay. Fifteen liters of soil from this deposit were flotation processed.

Beneath Zone 1 was an irregular disturbance, designated Zone 2, which appears to represent a tap root. It contained only two fired clay fragments.

Feature 143 (center at 854.89R179.89) (Figure A.117)

Feature 143 was a small, charred corncob-filled pit located on the southern edge of the site between Structure Localities 9 and 10. This basin-shaped smudge pit measured approximately 18 cm in diameter and was 10 cm deep. The pit fill consisted of wood charcoal and carbonized corncob fragments mixed with brown (7.5YR 4/4) silty clay



Figure A.117. Feature 143 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

loam. Strips of charred bark lined the bottom of the cob pit. All of this deposit (3.5 liters) was flotation processed.

Feature 144 (center at 855.13R185.41) (Figure A.118)

Feature 144 was a large, oval-shaped, charred corncob-filled pit that measured 45 cm by 40 cm and approximately 9 cm deep. It was located in Structure Locality 10 at the southern edge of the site. Feature 144 was excavated as a single zone, and all material associated with it was collected as a 16.2-liter flotation sample. The bottom of this pit was flat with in-sloping sides. Feature 144 contained approximately 5 cm of what appears to be some sort of clay cap, which covered much of its surface. Below this layer of brown silty clay, a nearly solid layer of charred corncob and charcoal was encountered. This feature was consistent in color and content with other cob-filled smudge pits at the site.

Feature 145 (center at 855.30R189.41) (Figure A.119)

Feature 145 was a probable posthole. This small, cylindrical pit measured about 19 cm in diameter and 13 cm deep, with slightly insloping walls and a flat base. The posthole fill, which consisted of dark yellowish brown (10YR 3/4) loamy clay, contained two clear glass fragments, a Rosso Antico teapot lid sherd, a fragment of animal bone, and bits of fired clay.



Figure A.118. Feature 144 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.119. Feature 145 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.120. Feature 146 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Feature 145 is part of an amorphous cluster of 16 postholes (Features 145–154, 156, 168, 169, and 171–173) within and around Structure Locality 10. Six of these (Features 145, 146, 147, 151, 152, and 156) form an east-west alignment roughly parallel to the probable superstructure defined by the Feature 141–Feature 170 grouping. Temporal association of Features 145 and 170 is indicated by the presence of Rosso Antico ware in both contexts (and no others).

These postholes probably reflect the presence of traditional post-in-ground structures at Ayers Town, buildings that may correspond to the "wigwhams, the original form of their houses" that Henrietta Liston observed in 1797. The structural form is undetermined.

Feature 146 (center at 855.34R188.84) (Figure A.120)

Feature 146 was another posthole in the alignment associated with Structure Locality 10. This small, circular pit had nearly vertical side walls and a flat base, and measured approximately 14 cm in diameter and 17 cm deep. The posthole fill consisted of brown (7.5YR 4/4) silty clay loam and contained no artifacts.

Feature 147 (center at 855.23R190.27) (Figure A.121)

Feature 147 was a posthole in the alignment at the north edge of Structure Locality 10. This small, circular pit evinced relatively vertical side walls and a flat base, and was



Figure A.121. Feature 147 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

approximately 21 cm in diameter and 20 cm deep. The Feature 147 matrix was dark brown (7.5YR 3/4) loamy clay that contained a Catawba potsherd, a fragment of green bottle glass, and a small, clear glass fragment.

Feature 148 (center at 853.56R185.44) (Figure A.122)

Feature 148, a probable posthole in the alignment north of Structure Locality 10. This small, circular pit measured approximately 19 cm in diameter and 10 cm deep, with slightly in-sloping side walls and a flat base. Feature 148 contained a deposit of very dark brown (10YR 2/2) silty clay with charcoal inclusions. This fill yielded five Catawba potsherds and two animal bone fragments.

Feature 149 (center at 854.26R185.11) (Figure A.123)

Feature 149, another posthole on the west side of Structure Locality 10, was approximately 20 cm in diameter and 26 cm deep, with nearly vertical walls and a slightly rounded base. The posthole fill consisted of medium brown clayey silt mottled with large pieces of lighter-colored clay. Two Catawba potsherds were recovered from the post fill.



Figure A.122. Feature 148 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.123. Feature 149 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.124. Feature 150 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Feature 150 (center at 854.48R185.23) (Figure A.124)

Feature 150 was a posthole located beside Feature 149, part of a cluster of postholes at the west side of Structure Locality 10. This small, circular pit measured approximately 14 cm in diameter and 14 cm deep, with in-sloping side walls and a rounded base. The medium brown, silty clay matrix of this posthole was sterile.

Feature 151 (center at 854.76R191.73) (Figure A.125)

Feature 151, another posthole in the alignment on the north side of Structure Locality 10, was a small, well-defined circular pit with straight to in-sloping sides and a flat bottom. It measured approximately 13 cm in diameter and 9 cm deep, with a sterile matrix of dark yellowish brown (10YR 3/4) loamy clay.

Feature 152 (center at 855.05R191.87) (Figure A.126)

Feature 152 was another posthole in the alignment on the north side of Structure Locality 10. This small circular pit measured approximately 16 cm in diameter and 20 cm deep, and exhibited vertical sidewalls and a flat base. The fill consisted of dark yellowish brown (10YR 3/4) loamy clay mixed with traces of potter's clay, but was otherwise sterile.



Figure A.125. Feature 151 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.126. Feature 152 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.127. Feature 153 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Feature 153 (center at 853.61R185.77) (Figure A.127)

This posthole, located in the post cluster immediately west of Structure Locality 10, was a small, circular pit that measured approximately 12 cm in diameter and 14 cm deep. It had slightly in-sloping side walls and a flat base, and contained a deposit of medium dark brown silty clay, but no artifacts.

Feature 154 (center at 853.58R186.08) (Figure A.128)

Feature 154 was a posthole located adjacent to Feature 153 in Structure Locality 10. This small, circular pit measured approximately 20 cm in diameter and 37 cm deep, with vertical walls terminating in a flat base. The posthole fill consisted of medium brown silty clay with three or four lumps of potter's clay and two Catawba potsherds.

Feature 155 (center at 857.48R194.65) (Figure A.129)

Feature 155 was a large, circular pit located in Structure Locality 11. This probable subfloor storage pit was approximately 103 cm in diameter and 43 cm deep, with slightly undercut side walls and a flat to slightly rounded bottom.

The pit matrix comprised four distinct deposits. Zone 1 consisted of mottled reddish brown (5YR 4/4) silt loam, which graded to slightly darker reddish brown (5YR 3/3) fill in the western half of the feature. This 15 cm thick deposit yielded 28 Catawba



Figure A.128. Feature 154 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

potsherds, four glass beads, 14 lithic flakes, fire-cracked rocks, charcoal, and small amounts of potter's clay. An 8-liter soil sample from Zone 1 was retained for flotation.

Zone 2 was a 7–10 cm thick deposit of dark reddish brown (5YR 3/4) silt loam mottled with yellowish red (5YR 4/6) silt loam, with small inclusions of potter's clay. Zone 2 produced relatively few artifacts, including eight potsherds, a fragment of green bottle glass, 12 lithic flakes, charcoal, and fire-cracked rocks. Ten liters of soil from this deposit were flotation processed as a flotation sample.

Zone 3 consisted of 10–14 cm of dark reddish brown (5YR 3/3) silt loam mottled with strong brown (7.5YR 5/8) silt loam, and included large clumps of greenish gray (10Y 6/1) and light yellowish brown (2.5Y 6/4) potter's clay. This deposit contained 286 Catawba potsherds (including three pans and one jar), 13 glass beads, six fragments of English pottery (i.e., creamware, pearlware, and Jackfield), two wrought nails, three clay pipe fragments, a large nutting and grinding stone, and a piece of flat glass. Eight liters of this deposit were flotation processed.

The basal unit, Zone 4, was approximately six centimeters of brown (7.5YR 4/4) silt loam. This deposit contained 30 potsherds, 17 glass beads, a wrought nail, a straight pin, a piece of green bottle glass, and two fragments of iron sheet. An 8-liter flotation sample was also collected from this zone.



Figure A.129. Feature 155 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north); fill profile with south half excavated (middle right, view to north); close-up of potsherds at base of Zone 3 (bottom left, view to north); and excavated feature (bottom right, view to north).

Feature 156 (center at 854.90R190.67) (Figure A.130)

Feature 156 was a small, cylindrical posthole that measured approximately 10 cm in diameter and 8 cm deep. Excavation of the dark yellowish brown (10YR 3/4) loamy clay matrix revealed a rounded base, but recovered no artifacts.

Feature 157 (center at 854.63R196.34) (Figure A.131)

Feature 157 was a circular, charred corncob-filled pit located within Structure Locality 11 at the southeastern part of the site. Feature 157 measured approximately 22 cm in diameter and 8 cm deep, with a single, 3.6-liter deposit of charred corncobs that



Figure A.130. Feature 156 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.131. Feature 157 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.132. Features 158, 159, and 160 plan view and profile drawings, and excavation photographs: top of features (top, view to north) and fill profile with south half of Features 158 and 160 excavated (bottom, view to north).

contained one stone flake. Excavation of this deposit revealed a small, well-defined basin with straight sides and a flat, uneven base on cobbly subsoil.

Feature 157 is situated near Features 159 and 160, smudge pits that intrude Feature 158. These three smudge pits (Features 157, 159, 160) may represent specialized reuse of the Structure Locality 11 after abandonment of Features 155 and 158.

Feature 158 (center at 856.15R196.06) (Figure A.132)

This relatively shallow, basin-shaped pit was located in Structure Locality 11 along the southeastern side of the village. This basin measured 78 cm in diameter and 11 cm deep, and contained a single deposit of brown (7.5YR 4/4) silty sand mottled with dark brown (7.5YR 3/2) silty clay with small-to-medium inclusions of yellowish red (5YR 4/6) clay. Excavation of this deposit exposed a rounded, irregular base in cobbly subsoil.

The pit deposit included small flecks of charcoal and lumps of greenish gray and yellowish brown potter's clay, as well as 30 Catawba potsherds, two modeled clay objects, two glass beads, a creamware sherd, two clay pipe fragments, and fragments of animal bone.

Two charred corncob-filled smudge pits (Features 159 and 160) intruded Feature 158. These reflect probable reuse of the location for pottery smudging; placement of the smudge pits within Feature 158 probably represents opportunistic excavation into the softer pit matrix (rather than excavation into the resistant cobbly subsoil).



Figure A.133. Feature 161 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Feature 159 (center at 855.89R196.00) (Figure A.132)

Feature 159 was a circular, charred corncob-filled smudge pit that intruded the south half of Feature 158. This smudge pit measured approximately 29 cm in diameter and 11 cm deep, with slightly in-sloping walls that terminated in a rounded base. This pit contained a single, eight-liter deposit of brown (7.5YR 4/4) silty clay mixed with charred corncobs.

Feature 160 (center at 856.16R196.35) (Figure A.132)

Feature 160, another circular, charred corncob-filled smudge pit, also intruded the east edge of Feature 158. This facility measured approximately 21 cm in diameter and 9 cm deep, and had in-sloping walls and a rounded bottom. The pit matrix consisted of seven liters of dark brown (7.5YR 3/2) silty clay mixed with charred plant material; this deposit contained two Catawba potsherds and one pearlware sherd.

Feature 161 (center at 858.65R200.13) (Figure A.133)

Feature 161 was a circular, charred corncob-filled smudge pit located in Structure Locality 12 at the southeastern edge of the village area. This pit measured approximately 32 cm in diameter and 8 cm deep, with in-sloping walls and a rounded base. Feature 161 contained a single, 4.3-liter deposit of charred plant material mixed with reddish brown silty clay.

Feature 162 (center at 856.36R198.75) (Figure A.134)

Feature 162 was a large, circular storage pit located in Structure Locality 11 adjacent to Feature 163, a sub-rectangular storage pit. Feature 162 measured approximately 111 cm long, 108 cm wide, and 32 cm deep (below the subsoil surface), with slightly insloping walls and a slightly rounded base. The pit matrix consisted of four deposits: Zones 1, 3, and 4 were refuse deposits and Zone 2 was a small smudge pit that intruded the surface of the feature and extended through Zones 1, 3, and 4.

Zone 1 consisted of approximately 15 cm of dark brown (7.5YR 3/3) clay loam with charcoal inclusions. This deposit included 101 Catawba potsherds, five glass beads, six fragments of English pottery, a rolled silver sheet, a brass button, two clay pipe fragments, and an iron bar. An intact, salt-glazed stoneware ink bottle rested at the base of Zone 1 near the eastern edge of the pit.

Zone 2 was a charcoal-filled smudge pit that intruded Zones 1, 3, and 4 in the southwestern quadrant of the feature. This small, circular pit measured 21 cm in diameter and approximately 24 cm deep, with vertical side walls and a rounded base. Unlike most probable smudge pits, the three liter deposit in Zone 2 contained no obvious corncobs, but did include a kaolin pipestem.

Zone 3, a 7–9 cm thick deposit of dark brown (7.5YR 3/4) loamy clay, underlay Zone 1. This deposit contained 27 Catawba potsherds, 17 glass beads, 14 fragments of English pottery, two brass buttons, a silver cuff link, a fragment of green bottle glass, two brass sheet fragments, red sealing wax, and a kaolin pipe fragment.

Beneath Zone 3 was Zone 4, a 10–12 cm thick deposit of dark yellowish brown (10YR 3/4) sandy clay loam with lumps of potter's clay near the top. Zone 4 contained a substantial amount of ash with charcoal flecking and calcined bone, as well as five Catawba potsherds, 27 glass beads, a clay pipe fragment, two cut lead strips, and a piece of lead shot.

Intrusion of the Zone 2 smudge pit into Feature 162 after it was abandoned and filled with debris was probably an opportunistic repurposing that took advantage of the soft matrix of the filled pit for the installation of a single event-use smudge facility. The placement of this smudge pit in proximity to four other smudge pits (Features 157, 159, 160, and 175) may reflect reuse of Structure Locality 11 after abandonment of this residence area.

Feature 163 (center at 857.69R198.15) (Figure A.135)

Feature 163 was a large, trash-filled pit located immediately north of Feature 162 in Structure Locality 11. The sub-rectangular storage facility measured 112 cm long, 109 cm wide, and 25 cm deep, with vertical side walls and a flat base. Feature 163 contained a single deposit of dark brown (7.5YR 3/4) silt loam that included 423 Catawba potsherds, 18 glass beads, five English sherds, five iron scissor fragments, a small clay spoon, a gunflint, a brass Jew's harp, a marble, a glass bottle stopper, a straight pin, lead shot, and a brass ring.



Figure A.134. Feature 162 plan view and profile drawings, and excavation photographs: top of feature (top right, view to north); fill profile with Zone 1 in west half excavated (second row right, view to east); base of Zone 1 with Zone 2 (smudge pit) removed (third row left, view to east); fill profile with west half excavated (third row right, view to east); *in situ* stoneware bottle at base of Zone 1 in east half (bottom left, view to east); and excavated feature (bottom right, view to east).



Figure A.135. Feature 163 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with west half excavated (bottom, view to east).

Features 162 and 163 probably represent subfloor storage pits associated with the same residence. Their close proximity to Features 155 and 158 presumably reflects the sequential residential use of this position in the settlement.

Feature 164 (center at 892.59R171.15) (Figure A.136)

This ovoid basin located at the northern edge of the site probably represents the remnant base of a heavily truncated pit. Feature 164 initially appeared circular in plan after removal of the plow disturbed soil; trowel cleaning for photo-documentation reduced the feature to its documented ovoid form. Cleaning also removed thin lenses of potter's clay.

Feature 164 measured approximately 88 cm by 64 cm in plan and was 8 cm deep, with a slightly irregular base. The feature matrix comprised two deposits. Zone 1 was approximately 6 cm thick and consisted of yellowish brown (10YR 5/6) sand silt loam which contained five Catawba potsherds, fire cracked rock, a lithic flake, and fragments of calcined bone. Zone 2 was a dark yellowish brown (10YR 4/3) sandy silt loam deposit that contained charcoal flecks, bits of calcined bone, two potsherds, two flakes, and a lithic scraper.

The size, morphology, and potter's clay content of Feature 164 resembles probable clay processing facilities documented at the nearby Old Town site, the location of a



Figure A.136. Feature 164 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and fill profile with north half excavated (bottom, view to south).

contemporaneous Catawba village. These facilities are typically located immediately outside probable residences.

Feature 165 (center at 851.26R177.78) (Figure A.137)

Feature 165 was a probable posthole located near the southern edge of the site between the Feature 140/190/191 complex and Structure Locality 10. This posthole measured approximately 15 cm in diameter and 10 cm deep, with in-sloping sides and a rounded bottom. The posthole matrix was strong brown (7.5YR 4/6) loam; no artifacts were recovered from this deposit.

Feature 166 (center at 850.62R181.07) (Figure A.138)

Feature 166 was a shallow, oval, charred corncob-filled pit located along the southern perimeter of the site west of Structure Locality 10. It measured 40 cm by 34 cm in plan, and was 3 cm deep, with in-sloping sides and a flat base. This pit contained a 4.1 liter deposit of dark yellowish brown (10YR 4/6) loam mixed with charred corncobs, sticks, and bark fragments. This deposit yielded two Catawba potsherds.

Feature 167 (center @ 852.02R182.11) (Figure A.139)

Feature 167, an oval, charred corncob-filled pit, was located on the southern edge of the site west of Structure Locality 10. This smudge pit measured 26 cm by 22 cm in plan,



Figure A.137. Feature 165 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.138. Feature 166 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).


Figure A.139. Feature 167 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

was 4 cm deep, and evinced in-sloping sides and a rounded bottom. The pit matrix comprised a 1.1 liter deposit of dark yellowish brown (10YR 4/6) loam mixed with carbonized plant remains.

Feature 168 (center at 851.86R188.68) (Figure A.140)

Feature 168 was a posthole in the cluster surrounding Structure Locality 10 at the southern edge of the site. This small pit exhibited in-sloping sides and a flat base, and measured 20 cm in diameter and 9 cm deep. The posthole fill deposit consisted of dark brown (7.5YR 3/4) clay loam and contained three Catawba potsherds.

Feature 169 (center at 852.20R184.53) (Figure A.141)

Feature 169 was another posthole in Structure Locality 10. This small, circular pit measured 14 cm in diameter and 6 cm deep, and exhibited in-sloping sides and a rounded base. The posthole fill consisted of strong brown (7.5YR 4/6) clay loam. This deposit contained no associated artifacts.

Feature 170 (center at 852.15R189.89) (Figure A.142)

Feature 170 was sub-rectangular pit located in Structure Locality 10 at the southern edge of the village area. This facility measured 71 cm by 55 cm in plan and 20 cm deep, and had out-sloping, or bell-shaped, sides and a level or slightly basin-shaped base.



Figure A.140. Feature 168 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.141. Feature 169 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.142. Feature 170 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and A-B fill profile with south half excavated (bottom, view to north).

Excavations revealed that the matrix was a single, 94-liter deposit of homogenous dark brown (7.5YR 3/3) loamy clay with abundant artifacts and other debris. All of the soil from this deposit was flotation processed. Materials recovered from this deposit include 111 Catawba potsherds, 25 glass beads, a fragmented clear glass decanter, a silver cone earring, two brass tacks, a fragment of brass wire, two kaolin pipe fragments, a Catawba clay pipe fragment, two potter's burnishing stones, an iron knife handle fragment, pieces of unfired potter's clay, several clay hearth fragments, fragments of large animal bone and mussel shell, and a few burned corncobs. Feature 170 also produced an array of English ceramics including tin-enameled wares, yellow lead-glazed earthenwares, and Rosso Antico stoneware.

The size, morphology, and content of Feature 170 are consistent with other probable substructure storage pits defined at Ayers Town. Its size and shape suggest that this feature served as a small, sub-floor storage pit before eventually being filled with hearth cleanings and other domestic debris.

Feature 171 (center at 853.14R190.26) (Figure A.143)

Feature 171 was a posthole in Structure Locality 10. This small, deep, circular pit measured approximately 15 cm in diameter and 43 cm deep. It had straight sides and a flat base that was slightly stepped at the bottom. The posthole fill was a uniform deposit of yellowish brown (10YR 5/4) sandy silt loam with flecks of charcoal, small lumps of potter's clay, and seven Catawba potsherds.



Figure A.143. Feature 171 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

Feature 172 (center at 853.07R191.84) (Figure A.144)

Feature 172 was another posthole in the Structure Locality 10 cluster. This posthole measured approximately 20 cm in diameter and 37 cm deep, with vertical walls and a rounded base. The fill of this feature was dark brown (7.5YR 3/3) silt loam mottled with fragments of red (2.5YR 4/8) burned clay and strong brown (7.5YR 4/6) silt loam. Small lumps of unfired potter's clay were also evident in the posthole deposit.

Feature 173 (center at 852.87R192.14) (Figure A.145)

Feature 173 was a posthole in the cluster surrounding Structure Locality 10. This small, circular pit measured 16 cm in diameter and 11 cm deep, with vertical walls and a flat base. The matrix of Feature 173 was a uniform deposit of dark brown (7.5YR 3/4) silt loam with charcoal flecks and included six Catawba potsherds.

Feature 174 (center at 854.90R198.94) (Figure A.146)

Feature 174 was a circular, charred corncob-filled pit that measured approximately 22 cm in diameter and 7 cm deep. It had in-sloping sides and a rounded bottom, and is interpreted as a smudge pit. This feature was located south of Feature 162 in Structure Locality 11, near the southern edge of the site. Feature 174 was excavated as a single zone, and the fill, comprised of cobs within a reddish brown silty clay matrix, was



Figure A.144. Feature 172 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.145. Feature 173 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.146. Feature 174 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

processed as a 3.1-liter flotation sample. Aside from charcoal, no other cultural material was recovered from this context.

Feature 175 (center at 854.52R199.19) (Figure A.147)

Feature 175 was a posthole in Structure Locality 11. This small, circular pit measured approximately 17 cm in diameter and 9 cm deep, and evinced in-sloping sides that terminated in a rounded base. The posthole fill was a single deposit of brown (7.5YR 4/4) silty clay that included two Catawba potsherds.

Feature 176 (center at 849.44R194.91) (Figure A.148)

Feature 176 was a shallow, circular, charred corncob-filled pit located in the cluster of smudge pits, south of Structure Localities 10 and 11 and west of Structure Locality 12 at the southeastern margin of the site. Feature 176 measured 19 cm in diameter and approximately 3 cm deep, with in-sloping sides and a flat base. The pit matrix consisted of 0.8 liters of charcoal mixed with brown (7.5YR 4/2) silty clay.

Feature 177 (center at 849.09R195.23) (Figure A.149)

Feature 177 was another smudge pit in the cluster of cob-filled pits at the southeastern periphery of the site. This shallow, circular basin measured 20 cm in



Figure A.147. Feature 175 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.148. Feature 176 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.149. Feature 177 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

diameter and 4 cm deep, with in-sloping sides and a rounded base. The pit matrix, which consisted of charred corncobs mixed with medium brown silty clay, totaled 1.2 liters.

Feature 178 (center at 849.61R195.47) (Figure A.150)

Feature 178 was a shallow, circular, charred corncob-filled pit situated in the smudge pit cluster at the southeastern edge of the village area. This small pit measured approximately 18 cm in diameter and 3 cm deep. Excavation of the charcoal and medium brown silty clay matrix, comprising 0.8 liters, revealed the pit's in-sloping sides and flat base.

Feature 179 (center at 847.52R194.93) (Figure A.151)

Feature 179 was a small, circular, charcoal-filled pit located within the smudge pit cluster at the southeastern edge of the site. This facility measured 25 cm in diameter and 18 cm deep, with vertical walls and a flat base. The western edge of the pit exhibited slight reddening, evidence of *in situ* firing. Unlike many of the smudge pits identified at the site, Feature 179 did not contain charred corncobs; instead, the pit fill consisted almost entirely of wood charcoal with minor amounts of brown (10YR 4/3) sandy loam, and included two Catawba potsherds and a lithic flake.



Figure A.150. Feature 178 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.151. Feature 179 plan view and profile drawings, and excavation photographs: top of feature (top, view to south) and excavated feature (bottom, view to south).



Figure A.152. Feature 180 plan view and profile drawings, and excavation photographs: top of feature (top, view to south) and excavated feature (bottom, view to south).

Feature 180 (center at 847.64R194.38) (Figure A.152)

Feature 180 was a relatively large, circular, charred corncob-filled pit that was part of the cluster of smudge pits at the southeastern margin of the village area. This pit measured approximately 37 cm in diameter and 13 cm deep. It had in-sloping sides and a flat bottom, and contained substantial charred material and a single Catawba ceramic sherd in a 13-liter matrix of brown (7.5YR 4/4) loam.

Feature 181 (center at 847.97R194.28) (Figure A.153)

Feature 181 was another circular, charred corncob-filled pit in the southeastern cluster of smudge facilities. This pit measured approximately 20 cm in diameter and 6 cm deep, and had in-sloping sides and a flat base. The pit matrix was a 4.8-liter deposit of charcoal mixed with strong brown (7.5YR 4/6) loam.

Feature 182 (center at 848.11R196.03) (Figure A.154)

Feature 182 was a circular, charred corncob-filled pit in the southeastern cluster of smudge facilities. It measured approximately 24 cm in diameter and 8 cm deep, and had in-sloping sides and a flat bottom. Feature 182 was excavated as a single zone and the fill, which consisted of charcoal in a matrix of yellowish red (5YR 4/6) loam, was processed as a 4.0-liter flotation sample. No cultural material other than carbonized plant remains was recovered.



Figure A.153. Feature 181 plan view and profile drawings, and excavation photographs: top of feature (top, view to south) and excavated feature (bottom, view to south).



Figure A.154. Feature 182 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.155. Feature 183 plan view and profile drawings, and excavation photographs: top of feature (top, view to south) and excavated feature (bottom, view to south).

Feature 183 (center at 848.22R199.95) (Figure A.155)

Feature 183 was another smudge pit located in the cluster at the southeastern edge of the site. This circular, charred corncob-filled pit measured approximately 25 cm in diameter and 7 cm deep. It had in-sloping sides and a flat bottom, and contained a 4.0-liter deposit of charcoal mixed within a yellowish red (5YR 4/6) loam.

Feature 184 (center at 848.68R202.90) (Figure A.155)

Feature 184 was a circular, charred corncob-filled pit located in Structure Locality 12 and counted as part of the southeastern "smudging precinct." This basin-shaped smudge pit measured approximately 24 cm in diameter and 6 cm deep, and contained a 4.0 liters of charcoal mixed with strong brown (7.5YR 4/6) loam. This deposit included three Catawba potsherds.

Feature 185 (center at 848.96R204) (Figure A.157)

Feature 185 was a small, rectangular, refuse-filled pit located at the extreme southeast edge of the site in Structure Locality 12. This facility measured approximately 41 cm long and 32 cm wide, and had a maximum depth of about 31 cm. It appeared to have been excavated into the top of a tree disturbance, perhaps an opportunistic placement to minimize construction effort in penetrating the resistant, cobbly subsoil.



Figure A.156. Feature 184 plan view and profile drawings, and excavation photographs: top of feature (top, view to south) and excavated feature (bottom, view to south).

Excavation revealed three cultural deposits overlying the sterile matrix of a probable taproot mold. All soil from the upper three zones was collected and flotation processed.

The uppermost six centimeters of Zone 1 was a mixture of red clay subsoil and dark feature fill. The remaining 7 cm of Zone 1 consisted of dark brown (7.5YR 3/4) compact sandy clay, which included 124 Catawba potsherds, four pearlware sherds, animal bone, and charcoal fragments.

Zone 2 consisted of 10 centimeters of dark yellowish brown (10YR 3/4) sandy clay. This deposit contained 94 Catawba potsherds, a straight pin, and an Archaic cornernotched projectile point, as well as fragments of animal bone and charcoal.

Zone 3, an eight centimeter thick deposit of dark yellowish brown (10YR 4/6) loam, contained 42 Catawba potsherds, a fragment of green-glazed cream-bodied ware, and fragments of animal bone and charcoal. A thin charcoal lens marked the base of Zone 3.

Beneath the Zone 3 deposit was a natural soil disturbance which extended more than 20 cm deep. The matrix within this disturbance was unconsolidated and riddled with cavities. This deposit included cobbles (as did Zones 1–3) but no artifacts.

Feature 185 also yielded 87 Catawba potsherds, an iron Jews harp, a wrought nail, and animal bone fragments during the final cleaning of the walls of this feature. These are not attributed to specific deposits, but presumably derive from Zones 1–3.



Figure A.157. Feature 185 plan view and profile drawings, and excavation photographs: top of feature (top right, view to south); fill profile with north half excavated to top of Zone 2 (middle right, view to south); fill profile with south half excavated (bottom left, view to south); and excavated feature with underlying tree disturbance partially removed (bottom right, view to south).

While the lowermost deposit within (or beneath) Feature 185 appears to have been a natural disturbance of the subsoil (e.g., a tree taproot mold), the rectangular shape and straight walls in the upper portion of the feature appear to have been an intentional construction. The size and morphology of the upper, constructed portion of Feature 185 resembles small substructure pits documented at the Nassaw Town site (38YK434), a mid-eighteenth century Catawba village (Fitts et al. 2007).

Feature 186 (center at 849.27R201.69) (Figure A.158)

Feature 186 was a small posthole located in Structure Locality 12 at the southeastern edge of the site. This shallow, circular basin measured approximately 16 cm in diameter



Figure A.158. Feature 186 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).

and 6 cm deep, and exhibited in-sloping sides and a rounded base. The strong brown (7.5YR 4/6) loam posthole matrix contained two Catawba potsherds.

Feature 187 (center at 850.14R195.90) (Figure A.159)

Feature 187 was a garbage-filled taproot mold located adjacent to the smudge pit cluster on the southeastern margin of the site. This irregular soil disturbance measured approximately 29 cm by 28 cm, and was excavated to a depth of 42 cm; testing with a soil probe indicated that this disturbance extended 82 cm below the surface of subsoil. The matrix of this disturbance consisted of yellowish brown (10YR 4/3) sandy silt loam, and the uppermost 30 centimeters of deposit yielded 32 Catawba potsherds, a piece of brass wire, fragments of calcined and unburned bone, charcoal, and numerous cobbles. The soil below 30 cm was homogenous and sterile.

Use of stump holes for trash disposal at Ayers Town is attested by Features 67, 95, 96, 142, and 187. Similar opportunistic use of stump holes as refuse receptacles is well documented at the New Town site (SoC 632/635), a slightly later Catawba village site located approximately five kilometers north of Ayers Town.

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Feature 188 (center at 850.52R203.04) (Figure A.160)
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Feature 188 was a posthole located in Structure Locality 12 at the southeastern edge of the site. This small circular pit measured approximately 12 cm in diameter and 6 cm



Figure A.159. Feature 187 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.160. Feature 188 plan view and profile drawings, and excavation photographs: top of feature (top, view to north) and excavated feature (bottom, view to north).



Figure A.161. Feature 189 plan view and profile drawings, and excavation photographs: top of feature (top, view to south) and excavated feature (bottom, view to south).

deep, with in-sloping sides and a rounded base. The posthole matrix was dark reddish brown (5YR 2.5/2) loam with flecks of charcoal and included eight Catawba potsherds.

Feature 189 (center at 849.15R203.58) (Figure A.161)

Feature 189 was another posthole in Structure Locality 12. This small, circular feature measured approximately 14 cm in diameter and 8 cm deep. It had in-sloping sides and a flat base, and contained a deposit of strong brown (7.5YR 4/6) loam with charcoal flecks which included eight Catawba potsherds and a piece of fired clay.

Feature 190 (see Feature 140 description)

Feature 191 (see Feature 140 description)

Appendix B

DESCRIPTIONS AND ILLUSTRATIONS OF NUMBERED VESSELS FROM AYERS TOWN

Vessel 1		Exterior Surface	smoothed (very pale brown –
Context	Feature 3	Interior Surface	10YR 7/3)
Vessel Type	cup (footed)	Interior Surface	10 YR 5/2)
Temper	fine sand	Rim Form	straight rim with rounded lip
Exterior Surface	burnished (light yellowish	Basal Form	indeterminate
	10 VP $6/4$	Rim Diameter	9.5 cm
Interior Surface	101 K 0/4)	Vessel Height	4 cm
Interior Surface	brown $= 10$ VR $6/4$)	Wall Thickness	6 mm
Rim Form	straight rim with flattened lin		
Basal Form	flat base with foot ring		
Rim Diameter	9.5 cm	Vessel 5	
Vessel Height	6 cm	Context	Feature 3
Wall Thickness	4 mm	Vessel Type	bowl
		Temper	very fine sand or temper-less
		Exterior Surface	burnished (very pale brown –
Vessel 2			10YR 7/3)
Contaxt	Eastura 2	Interior Surface	burnished (very pale brown -
Vessel Type	howl (footed)		10YR 7/3)
Temper	very fine sand or temper-less	Rim Form	straight rim with interior bevel
Exterior Surface	burnished (light gray with fire-		and flattened lip
Enterior Surface	clouding -10 YR $7/2$)	Basal Form	flat base
Interior Surface	smoothed and smudged (dark	Decoration	painted black dots on rim bevel
	gray – 10YR 4/1)	Rim Diameter	23 cm
Rim Form	incurvate rim with rounded lip	Vessel Height	/ cm
Basal Form	flat base with foot ring	wall Inickness	5 mm
Rim Diameter	12.5 cm		
Vessel Height	5.5 cm	Varial	
Wall Thickness	6 mm	v esser o	
		Context	Feature 3
		Vessel Type	plate
Vessel 3		Temper	very fine sand or temper-less
Context	Feature 3	Exterior Surface	burnished (light gray with fire-
Vessel Type	cup		clouding $-10YR^{7/2}$
Temper	fine sand	Interior Surface	burnished (light gray $-10YR$
Exterior Surface	smoothed (very pale brown –	Dim Form	1/2)
	10YR 7/4)		faceted lin
Interior Surface	smoothed and smudged (very	Basal Form	flat base
	dark gray $- 10$ YR $3/1)$	Rim Diameter	24 cm
Rim Form	incurvate rim with flattened lip	Vessel Height	3.5 cm
Basal Form	indeterminate	Wall Thickness	5 mm
Rim Diameter	9 cm		
vessel Height	5.5 cm		
wall Thickness	5 mm	Vessel 7	
		Context	Feature 4
Vessel 4		Vessel Type	nan
, USSUI T		Temper	fine sand
Context	Feature 3	Exterior Surface	burnished (pale brown – 10YR
Vessel Type	cup		6/3)
Temper	tine sand		/

Descriptions of Numbered Vessels from Ayers Town

DESCRIPTIONS OF NUMBERED VESSELS

Interior Surface **Rim Form** Basal Form **Rim Diameter**

Vessel Height

Wall Thickness

burnished and smudged (very dark gray -10 YR 3/1) straight rim; lip missing flat base _ 6 mm

Vessel 8

Context	Feature 5
Vessel Type	bowl
Temper	very fine sand or temper-less
Exterior Surface	burnished (yellowish red - 5YR
	5/6)
Interior Surface	burnished (yellowish red – 5YR
	5/6)
Rim Form	straight rim with interior facets
	and flattened lip
Basal Form	flat base
Rim Diameter	19 cm
Vessel Height	6 cm
Wall Thickness	6 mm

Vessel 9

Context	Feature 19
Vessel Type	bowl (footed)
Temper	fine sand
Exterior Surface	smoothed (very pale brown –
	10YR 7/3)
Interior Surface	smoothed and smudged (gray -
	10YR 5/1)
Rim Form	indeterminate; vessel base only
Basal Form	flat base with foot ring
Rim Diameter	-
Vessel Height	-
Wall Thickness	5 mm

Vessel 10

Feature 69
bowl (footed)
fine sand
burnished (light brownish gray
– 10YR 6/2)
burnished and smudged (very
dark gray – 10YR 3/1)
incurvate rim with rounded lip
flat base with foot ring
12.5 cm
-
5 mm

Vessel 11

Feature 69
bowl
fine sand
burnished (light brownish gray - 10YR 6/2)
burnished and smudged (very dark gray – 10YR 3/1)
straight rim with interior bevel and rounded lip
flat base
13 cm
5.5 cm
5 mm

Vessel 12

Feature 69
plate
fine sand
burnished (brown - 10YR 5/3)
burnished and smudged (very
dark gray – 10YR 3/1)
excurvate rim with flattened,
faceted lip
flat base
28 cm
5 cm
5 mm

Vessel 13

Context Feature 69 Vessel Type bowl Temper fine sand burnished (light yellowish Exterior Surface brown with fire-clouding -10YR 6/4) Interior Surface burnished and smudged (very dark gray – 10 YR 3/1) straight rim with interior bevel Rim Form and flattened lip Basal Form flat base Decoration painted red dashes on rim bevel Rim Diameter 15 cm Vessel Height _ Wall Thickness 4 mm

Vessel 14

Context Vessel Type Temper

Feature 72 pan fine sand

APPENDIX B

Exterior Surface	burnished (brownish yellow -
	10YR 6/6)
Interior Surface	burnished and smudged (very
	dark gray – 10YR 3/1)
Rim Form	straight rim with flattened lip
Basal Form	indeterminate
Rim Diameter	40 cm
Vessel Height	-
Wall Thickness	6 mm

Vessel 15

Context	Feature 73
Vessel Type	jar
Temper	fine sand
Exterior Surface	burnished (light brownish gray
	- 10YR 6/2)
Interior Surface	burnished and smudged (very
	dark gray $- 10$ YR $3/1)$
Rim Form	excurvate, folded rim with
	rounded lip
Basal Form	indeterminate
Rim Diameter	23 cm
Vessel Height	-

5 mm

Vessel 16

Wall Thickness

Context	Feature 73
Vessel Type	jar
Temper	fine sand
Exterior Surface	burnished and smudged along
	outer edge of rim (brownish
	yellow – 10YR 6/6)
Interior Surface	burnished and smudged (very
	dark gray – 10YR 3/1)
Rim Form	restricted, spherical body with
	straight, vertical rim and
	rounded lip
Basal Form	indeterminate
Rim Diameter	28 cm
Vessel Height	-
Wall Thickness	5 mm

Vessel 17

Context	Feature 91
Vessel Type	bowl
Temper	fine sand
Exterior Surface	burnished (strong brown –
	7.5YR 5/6)
Interior Surface	burnished and smudged (very
	dark gray – 10YR 3/1)

Rim Form	incurv
	bevel
Basal Form	indete
Rim Diameter	11 cm
Vessel Height	-
Wall Thickness	4 mm

ate rim with interior and flattened, faceted lip rminate

Vessel 18

Feature 107 bowl fine sand burnished (pale brown - 10YR 6/3) burnished (very pale brown -10YR 7/3) straight rim with interior bevel and rounded lip indeterminate punctated arcs along rim bevel 29 cm 5 mm

Vessel 19

Context	Feature 107
Vessel Type	bowl (footed)
Temper	fine sand
Exterior Surface	smoothed (light brownish gray
	- 10YR 6/2)
Interior Surface	smoothed and smudged (very
	dark gray – 10YR 3/1)
Rim Form	incurvate rim with flattened lip
Basal Form	flat base (?) with foot ring
Rim Diameter	14 cm
Vessel Height	-
Wall Thickness	5 mm

Vessel 20

Feature 107 Context Vessel Type bowl (footed) Temper very fine sand or temper-less Exterior Surface smoothed (light gray - 10YR 7/1) Interior Surface smoothed (pink -5YR 8/4) Rim Form incurvate rim with rounded lip Basal Form flat base with foot ring **Rim Diameter** 14 cm Vessel Height Wall Thickness 5 mm

DESCRIPTIONS OF NUMBERED VESSELS

Vessel 21

Context	Feature 107
Vessel Type	pan
Temper	very fine sand or temper-less
Exterior Surface	smoothed (light brownish gray - 10YR 6/2)
Interior Surface	burnished and smudged (very dark gray – 10YR 3/1)
Rim Form	straight rim with flattened lip
Basal Form	indeterminate
Rim Diameter	28 cm
Vessel Height	-
Wall Thickness	7 mm

Vessel 22

Context	Feature 107
Vessel Type	bowl (footed)
Temper	fine sand
Exterior Surface	smoothed (light brownish gray
	- 10YR 6/2)
Interior Surface	burnished and smudged (very
	dark gray – 10YR 3/1)
Rim Form	indeterminate; vessel base only
Basal Form	flat base with foot ring
Rim Diameter	-
Vessel Height	-
Wall Thickness	5 mm

Feature 123

fine sand

flat base

4.5 cm

5.5 cm

4 mm

jar (miniature)

burnished (brown -7.5 YR 5/4) burnished and smudged (very

dark gray – 10YR 3/1) excurvate rim with flattened lip

Vessel 23

Context Vessel Type Temper Exterior Surface Interior Surface Rim Form

Basal Form Rim Diameter Vessel Height Wall Thickness

Vessel 24

Context	Feature 123
Vessel Type	cup (pedestaled) (?)
Temper	fine sand
Exterior Surface	smoothed (very pale brown –
	10YR 7/3)
Interior Surface	smoothed (very pale brown –
	10YR 7/3)
Rim Form	indeterminate; vessel base only

Basal Form	pedestaled base
Rim Diameter	-
Vessel Height	-
Wall Thickness	-

Vessel 25

Context	Feature 123
Vessel Type	bowl (footed)
Temper	fine sand
Exterior Surface	burnished (yellowish brown -
	10YR 5/4)
Interior Surface	burnished and smudged (very
	dark gray -10 YR $3/1$)
Rim Form	incurvate rim with rounded lip
Basal Form	flat base with foot ring
Rim Diameter	11.5 cm
Vessel Height	4.5 cm
Wall Thickness	5 mm

Vessel 26

Context	Feature 123
Vessel Type	bowl
Temper	fine sand
Exterior Surface	burnished (very pale brown –
	10YR 7/4)
Interior Surface	burnished and smudged (very
	dark gray – 10YR 3/1)
Rim Form	straight rim with interior facets
	and rounded lip
Basal Form	flat (?) base
Rim Diameter	19 cm
Vessel Height	-
Wall Thickness	4 mm

Vessel 27

Context	Feature 123
Vessel Type	pan
Temper	fine sand
Exterior Surface	burnished (grayish brown –
	10YR 5/2)
Interior Surface	burnished and smudged (very
	dark gray – 10YR 3/1)
Rim Form	straight rim with flattened lip
Basal Form	flat base
Rim Diameter	33 cm
Vessel Height	11 cm
Wall Thickness	6 mm

APPENDIX B

Vessel 28

Context	Feature 123
Vessel Type	bowl
Temper	fine sand
Exterior Surface	burnished (grayish brown with
	fire-clouds – 10YR 5/2)
Interior Surface	burnished and smudged (very
	dark gray – 10YR 3/1)
Rim Form	straight rim with interior bevel
	and flattened lip
Basal Form	indeterminate
Decoration	red paint along rim bevel
Rim Diameter	18 cm
Vessel Height	-
Wall Thickness	5 mm

Vessel 29

Context	Feature 123
Vessel Type	jar
Temper	fine sand
Exterior Surface	burnished (reddish yellow –
	7.5YR 6/6)
Interior Surface	burnished and smudged (dark
	gray – 10YR 4/1)
Rim Form	restricted, spherical body with
	straight, vertical, folded rim and
	rounded lip; trace of a handle
	attachment below rim
Basal Form	indeterminate
Rim Diameter	9 cm
Vessel Height	-
Wall Thickness	4 mm

Vessel 30

Context	Feature 123
Vessel Type	bowl
Temper	very fine sand or temper-less
Exterior Surface	burnished (pale brown – 10YR 6/3)
Interior Surface	burnished (pale brown – 10YR 6/3)
Rim Form	straight rim with interior bevel and rounded lip
Basal Form	indeterminate
Decoration	painted red dots on rim bevel
Rim Diameter	23 cm
Vessel Height	-
Wall Thickness	5 mm

Vessel 31

Context
Vessel Type
Temper
Exterior Surface
Interior Surface
Rim Form
Basal Form
Rim Diameter
Vessel Height
Wall Thickness

Feature 124 bowl (footed) fine sand burnished (strong brown – 7.5YR 5/8) burnished and smudged (very dark gray – 10YR 3/1) straight rim with rounded lip flat (?) base with foot ring 15 cm -6 mm

Vessel 32

Context	Feature 124
Vessel Type	bowl
Temper	fine sand
Exterior Surface	burnished (reddish yellow -
	7.5YR 6/6)
Interior Surface	burnished and smudged (very
	dark gray – 10YR 3/1)
Rim Form	straight rim with interior bevel
	and flattened, faceted lip
Basal Form	indeterminate
Decoration	painted red dots along rim bevel
Rim Diameter	23 cm
Vessel Height	-
Wall Thickness	4 mm

Vessel 33

Context
Vessel Type
Temper
Exterior Surface
Interior Surface
Rim Form
Basal Form
Rim Diameter
Vessel Height
Wall Thickness

Feature 124 pan fine sand burnished (very pale brown with fire-clouds – 10YR 7/3) burnished and smudged (very dark gray – 10YR 3/1) straight rim with rounded lip flat base 41 cm 13.5 cm 5 mm

Vessel 34

Context Vessel Type Temper Exterior Surface Feature 140 bowl fine sand burnished (strong brown with fire-clouds – 7.5YR 5/6)

DESCRIPTIONS OF NUMBERED VESSELS

Interior Surface

Rim Form Basal Form Rim Diameter Vessel Height Wall Thickness

Vessel 35

Context	Feature 140
Vessel Type	jar
Temper	fine sand
Exterior Surface	burnished and smudged (very
	dark gray $- 10$ YR $3/1)$
Interior Surface	burnished and smudged (very
	dark gray $- 10$ YR $3/1)$
Rim Form	excurvate, folded rim with
	flattened lip
Basal Form	indeterminate
Rim Diameter	19 cm
Vessel Height	-
Wall Thickness	5 mm

burnished and smudged (very

dark gray – 10YR 3/1) straight rim; lip missing

flat base

>18 cm

>6.5 cm

5 mm

Vessel 36

Context	Feature 140
Vessel Type	pan
Temper	fine sand
Exterior Surface	burnished (light yellowish
	brown – 10YR 6/4)
Interior Surface	burnished and smudged (very
	dark gray – 10YR 3/1)
Rim Form	straight rim with flattened lip
Basal Form	flat base
Rim Diameter	31 cm
Vessel Height	11 cm
Wall Thickness	6 mm

Vessel 37

Context	Feature 140
Vessel Type	bowl
Temper	fine sand
Exterior Surface	burnished and smudged along
	outer edge of rim (reddish
	yellow – 7.5YR 7/6)
Interior Surface	burnished and smudged (very
	dark gray – 10YR 3/1)
Rim Form	straight rim with interior bevel
	and rounded lip
Basal Form	indeterminate
Decoration	painted red dots along rim bevel
Rim Diameter	14 cm

Vessel Height -Wall Thickness 7 mm

Vessel 38

Vessel 39

Context	Feature 140
Vessel Type	bowl
Temper	fine sand
Exterior Surface	burnished and smudged along
	outer edge of rim (reddish
	yellow – 7.5YR 6/6)
Interior Surface	burnished and smudged (very
	dark gray – 10YR 3/1)
Rim Form	excurvate rim with flattened lip
Basal Form	flat base
Rim Diameter	15.5 cm
Vessel Height	7 cm
Wall Thickness	5 mm

Vessel 40

Context	Feature 140
Vessel Type	pan
Temper	fine sand
Exterior Surface	burnished and smudged along
	outer edge of rim (yellowish
	brown – 10YR 5/6)
Interior Surface	burnished and smudged (very
	dark gray – 10YR 3/1)
Rim Form	incurvate rim with flattened lip
Basal Form	flat base
Rim Diameter	32 cm
Vessel Height	13 cm
Wall Thickness	6 mm

Vessel 41

Context

Feature 140

APPENDIX B

Vessel Type	pan
Temper	coarse sand and grit
Exterior Surface	burnished (yellowish brown –
	10YR 5/4)
Interior Surface	burnished and smudged (very
	dark gray $- 10$ YR $3/1)$
Rim Form	incurvate rim with flattened lip
Basal Form	flat base
Rim Diameter	34 cm
Vessel Height	12 cm
Wall Thickness	7 mm

Vessel 42

Context	Feature 140
Vessel Type	bowl
Temper	fine sand
Exterior Surface	burnished (very pale brown
	with fire-clouds $-10YR 8/3$)
Interior Surface	burnished (very pale brown
	with fire-clouds -10 YR $8/3$)
Rim Form	straight rim with interior bevel
	and rounded lip
Basal Form	flat base
Rim Diameter	22.5 cm
Vessel Height	6.5 cm
Wall Thickness	6 mm

Vessel 43

Context	Feature 91
Vessel Type	jar
Temper	fine sand
Exterior Surface	burnished (yellowish brown -
	10YR 5/6)
Interior Surface	smoothed (yellowish brown -
	10YR 5/6)
Rim Form	excurvate, folded rim with
	rounded lip
Basal Form	indeterminate
Rim Diameter	18 cm
Vessel Height	-
Wall Thickness	6 mm

Vessel 44

Context Vessel Type Temper Exterior Surface Interior Surface

Feature 141 jar fine sand smoothed (yellow - 10YR 7/6) smoothed (light gray – 10YR 7/2)

excurvate rim with flattened lip;
trace of a handle attachment
below rim
indeterminate
14 cm
-
4 mm

Vessel 45

Context	Feature 142
Vessel Type	bowl
Temper	fine sand
Exterior Surface	burnished and smudged along
	outer edge of rim (yellowish
	brown – 10YR 5/6)
Interior Surface	burnished and smudged (very
	dark gray – 10YR 3/1)
Rim Form	excurvate rim with flattened lip
Basal Form	indeterminate
Rim Diameter	22 cm
Vessel Height	-
Wall Thickness	5 mm

Vessel 46

Context	Feature 142
Vessel Type	pan
Temper	fine sand and medium sand
Exterior Surface	burnished (grayish brown –
	10YR 5/2)
Interior Surface	burnished and smudged (very
	dark gray -10 YR $3/1$)
Rim Form	straight rim with rounded lip
Basal Form	indeterminate
Rim Diameter	35 cm
Vessel Height	-
Wall Thickness	7 mm

Vessel 47

Context Feature 155 Vessel Type jar Temper fine sand Exterior Surface burnished (reddish yellow -7.5YR 6/6) burnished and smudged (very Interior Surface dark gray - 10YR 3/1) excurvate, folded rim with Rim Form rounded lip Basal Form flat base **Rim Diameter** 13 cm Vessel Height 17.5 cm Wall Thickness 7 mm

Vessel 48

Context	Feature 155
Vessel Type	bowl
Temper	fine sand
Exterior Surface	burnished (yellowish brown
	with fire-clouds $-10YR 5/8$)
Interior Surface	burnished and smudged (very
	dark gray -10 YR $3/1$)
Rim Form	straight rim with interior facets
	and rounded lip
Basal Form	flat base
Decoration	painted red dashes on rim facets
Rim Diameter	16 cm
Vessel Height	5.5 cm
Wall Thickness	5 mm

Vessel 49

Context	Feature 155
Vessel Type	bowl
Temper	very fine sand or temper-less
Exterior Surface	burnished (yellowish brown
	with fire-clouds $-10YR 5/8$)
Interior Surface	burnished and smudged (very
	dark gray $- 10$ YR $3/1)$
Rim Form	straight rim with interior facets
	and rounded lip
Basal Form	flat base
Rim Diameter	22 cm
Vessel Height	8 cm
Wall Thickness	5 mm

Vessel 50

Context	Feature 155
Vessel Type	bowl
Temper	very fine sand or temper-less
Exterior Surface	burnished (yellowish brown
	with fire-clouds $-10YR 5/8$)
Interior Surface	burnished and smudged (very
	dark gray $- 10$ YR $3/1)$
Rim Form	straight rim with interior facets
	and rounded lip
Basal Form	flat base
Decoration	painted red dashes on rim facets
Rim Diameter	18 cm
Vessel Height	6.5
Wall Thickness	4 mm

Vessel 51

~	
Context	Features 155 and 163
Vessel Type	pan
Temper	coarse sand and grit
Exterior Surface	roughly smoothed (yellowish
	brown – 10YR 5/4)
Interior Surface	smoothed and smudged (very
	dark gray -10 YR $3/1$)
Rim Form	straight, folded rim with
	flattened lip
Basal Form	flat base
Rim Diameter	45 cm
Vessel Height	21 cm
Wall Thickness	8 mm

Feature 162 cup (cylindrical)

medium sand

flat base

6.5 cm

6.5 cm

6 mm

burnished (brownish yellow

with fire clouds -10YR 6/6)

yellowish brown -10YR 6/4)

straight rim with flattened lip

roughly smoothed (light

Vessel 52

Context Vessel Type Temper Exterior Surface
Interior Surface
Rim Form
Basal Form
Rim Diameter
Vessel Height
Wall Thickness

Vessel 53

Context	Feature 163
Vessel Type	bowl
Temper	fine sand
Exterior Surface	burnished (yellowish brown
	with fire-clouds $-10YR 5/6$)
Interior Surface	burnished and partially
	smudged (light yellowish
	brown – 10YR 6/4)
Rim Form	excurvate rim with flattened lip
Basal Form	indeterminate
Rim Diameter	31 cm
Vessel Height	-
Wall Thickness	4 mm

Vessel 54

Context Vessel Type Temper Exterior Surface Feature 170 plate fine sand burnished (pale brown – 10YR 6/3)

APPENDIX B

Interior Surface Rim Form Basal Form Rim Diameter Vessel Height Wall Thickness

Vessel 55

Context	Feature 170
Vessel Type	pan
Temper	fine sand
Exterior Surface	burnished (brownish yellow –
	10YR 6/6)
Interior Surface	burnished (light brownish gray
	- 10YR 6/2)
Rim Form	incurvate rim with flattened lip
Basal Form	indeterminate
Rim Diameter	26 cm
Vessel Height	-
Wall Thickness	6 mm

10YR 7/4)

33 cm

7 mm

indeterminate

burnished (very pale brown -

excurvate rim with flattened lip

Vessel 56

Context	Feature 170
Vessel Type	plate
Temper	fine sand
Exterior Surface	burnished (very pale brown –
	10YR 7/4)
Interior Surface	burnished (very pale brown –
	10YR 7/4)
Rim Form	excurvate rim with flat, faceted
	lip
Basal Form	indeterminate
Decoration	trace of black line on rim
	interior
Rim Diameter	22 cm
Vessel Height	-
Wall Thickness	5 mm

Vessel 57

Context	Feature 185
Vessel Type	jar
Temper	medium sand
Exterior Surface	burnished (light yellowish
	brown – 10YR 6/4)
Interior Surface	burnished and smudged (very
	dark gray – 10YR 3/1)
Rim Form	excurvate, folded rim with
	rounded lip

Basal FormindeterminateRim Diameter19 cmVessel Height-Wall Thickness5 mm

Vessel 58

Context	Feature 185
Vessel Type	cup
Temper	fine sand
Exterior Surface	burnished (yellowish red with
	fire-clouds – 5YR 5/6)
Interior Surface	burnished (reddish brown –
	5YR 5/4)
Rim Form	incurvate rim with rounded lip
Basal Form	indeterminate
Rim Diameter	6 cm
Vessel Height	-
Wall Thickness	4 mm

Vessel 59

Context	Feature 185
Vessel Type	jar
Temper	fine sand
Exterior Surface	burnished (dark gray – 10YR
	4/1)
Interior Surface	burnished and smudged (very
	dark gray -10 YR $3/1$)
Rim Form	excurvate, folded rim with
	rounded lip
Basal Form	indeterminate
Decoration	incised zigzag line on rim fold
Rim Diameter	13 cm
Vessel Height	-
Wall Thickness	4 mm

Vessel 60

Context Vessel Type Temper Exterior Surface Interior Surface Rim Form Basal Form Rim Diameter Vessel Height Wall Thickness Feature 163 teapot or pitcher? (footed) fine sand polished (black – 10YR 2/1) smoothed and smudged (very dark gray – 10YR 3/1) indeterminate flat base with foot ring --6 mm



interior

exterior

cm

Vessel 3





cm

Vessel 9



side
























APPENDIX B













































Vessel 52 exterior bottom top









