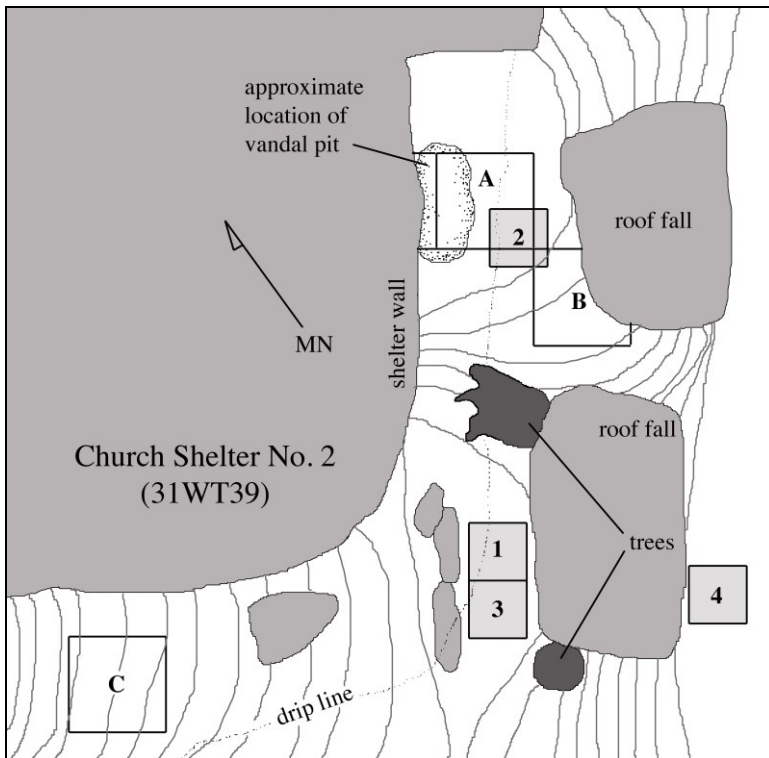


# North Carolina Archaeology



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Volume 62

October 2013

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**North Carolina Archaeology**  
(formerly *Southern Indian Studies*)

Published jointly  
by  
The North Carolina Archaeological Society, Inc.  
4619 Mail Service Center  
Raleigh, NC 27699-4619  
and  
The Research Laboratories of Archaeology  
University of North Carolina  
Chapel Hill, NC 27599-3120

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*North Carolina Archaeology* is published once a year in October. Subscription is by membership in the North Carolina Archaeological Society, Inc. Annual dues are \$15.00 for regular members, \$25.00 for sustaining members, \$10.00 for students, \$20.00 for families, \$250.00 for life members, \$250.00 for corporate members, and \$25.00 for institutional subscribers. Members also receive two issues of the *North Carolina Archaeological Society Newsletter*. Membership requests, dues, subscriptions, changes of address, and back issue orders should be directed to: Dee Nelms, Office of State Archaeology, N.C. Division of Archives and History, 4619 Mail Service Center, Raleigh, NC 27699-4619.

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**RADIOCARBON DATES ON MATERIALS AND CONTEXTS  
AT CHURCH ROCKSHELTER NO. 1 (31WT155),  
WATAUGA COUNTY, NORTH CAROLINA**

**by**

**Thomas R. Whyte**



Charles Church 1947–2013  
(Photograph by Jessica Kennedy)

**Dedication**

I had imagined myself proudly handing a copy of this issue of *North Carolina Archaeology* to my friend, Charles Church, the man who made half of my research possible, and at the same time thanking him for all that he had done for North Carolina archaeology and for my career. Charles died unexpectedly between the dates of article draft submission and publication. To most people Charles was a gentle and generous farmer. To me he was all of that and a brilliant thinker.

**Abstract**

Excavations at Church Rockshelter No. 1 (31WT155) were undertaken by Appalachian State University (ASU) archaeologists from 2003 through 2007 to salvage evidence prior to intended destruction by private development. Results indicate periodic use of the small shelter throughout the prehistoric Holocene for temporary encampment, human burial, and possibly other ritual behaviors. Radiocarbon assays were derived from wood charcoal, carbonized



residues on pottery, and animal bone. The site provides the first reported evidence of American Porcupine (*Erethizon dorsatum*) in Holocene North Carolina and archaeological evidence useful for the clarification of the muddled typologies of the Appalachian Summit region.

Excavations at Church Rockshelter No. 1 (formerly called Yates Rockshelter and numbered 31WT139) were undertaken by Appalachian State University (ASU) archaeologists from 2003 through 2007 to salvage evidence prior to intended destruction by private development. While detailed analyses of some of the artifacts, biological remains, and sediments are underway, the purpose of this preliminary report is to provide immediately useful information on the site's contexts and radiocarbon dates.

The rockshelter is in a south-facing hillside (Figure 1) overlooking the Watauga River just upstream from its confluence with Dutch Creek, and immediately downstream from the Town of Valle Crucis in Watauga County, North Carolina (Figure 2). It is composed of weathered Cranberry Gneiss and has a roughly triangular floor surface of about 10 m<sup>2</sup> (Figure 3). Its elevation is 829 m (2720 ft) above mean sea level and approximately 5 m (16 ft) above the Watauga River.

Previous excavations were conducted at the site in spring 1968 by Frank Randall, former chair of ASU's Department of Biology, who had been contacted by the site's owner, Charles Church, when human remains were discovered protruding from the shelter floor. Randall exhumed the skeletal remains and some artifacts from the rear center of the shelter floor, and identified the human remains as those of an adult male, about 35 years of age at the time of death, and dating to approximately 2000 years ago. That same year Charles Church excavated further into the site's deposits to determine if they contained additional evidence of prehistoric human use. In July 1971, ASU student Hal Pugh, under the direction of Burton L. Purrington, former ASU archaeologist, dug a few centimeters into the heavily disturbed floor of the shelter until his excavation was abandoned due to a threatening Charolais bull.

Photographs of Randall, Church, Pugh, and the recovered human skeletal remains at the shelter in 1971 are maintained by Appalachian State University Archives. These were the result of a photo-op for newspaper coverage around the time of Pugh's digging. Photographs of Randall's excavation apparently do not exist, and so the original context and position of the burial within a grave are uncertain. Apparently each

## CHURCH ROCKSHELTER NO. 1



Figure 1. View of Church Rockshelter No. 1 from the Watauga River.

bone, as it was encountered, was removed from the ground without the aid of screens to recover small fragments. Randall is quoted in *The Asheville Citizen* (1971) as saying that “it had been buried in Indian fashion with the knees drawn up to the chest and the head resting on crossed arms across the knees.” According to Charles Church who witnessed the excavation, the skeleton lay in a shallow grave in a flexed position, with the head to the southwest (toward the river) and facing southeast. No grave offerings were reported, though “the site yielded fragments of pottery, part of a stem from a clay pipe, the usual arrowheads, remains of old clam shells, stone chips and pieces of bone” (*The Asheville Citizen* 1971).



Figure 2. Detail of USGS Valle Crucis, North Carolina quadrangle map showing the location of Church Rockshelter No. 1.

In late July 1975, Appalachian State University archaeologist Harvard G. Ayers and three students excavated two 5 by 5 ft squares in the shelter (Figure 3). A datum point was established in the western portion of the shelter just beyond the drip line and excavation units were established at North 0–5 ft, East 0–5 ft and North 3–South 2 ft, East 10–15 ft. Ayers' field notes indicate that the first unit was located in the western corner of the shelter from which Charles Church had removed a large boulder to expose undisturbed (not previously excavated) soil. The second unit was located at the eastern end of the shelter where Mr. Church had indicated that no prior digging had occurred. In addition to these squares a small triangular area isolated between the first square and the shelter wall was excavated in two levels. No analyses and no report of these investigations ensued. It appears from Ayers' notes, field forms, and provenience data recorded on artifact bags that the units were excavated with trowels, 1/4-inch (6 mm) dry screens were used in recovery, and 4-inch (10 cm) arbitrary levels were used to subdivide vertical space. Field notes and four slides documenting the excavation were used to approximate the locations of the excavation units in Figure 3.

## CHURCH ROCKSHELTER NO. 1

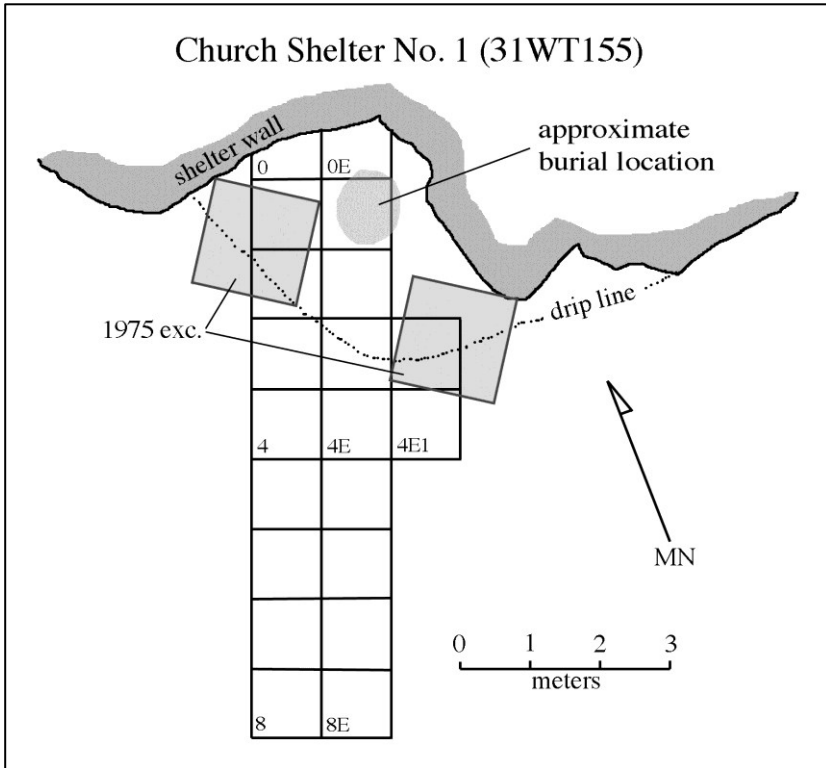


Figure 3. Floor plan of Church Rockshelter No. 1.

These two units were excavated to a depth of about 2.33 feet (five levels) below the surface. Prehistoric stone and ceramic artifacts and historic glass jar fragments were recovered from even the deepest levels in the easternmost unit, indicating extreme historic disturbance to the deposits, probably as a result of the excavations of Randall in 1968, Pugh in 1971, and possibly due to one or more incidents of undocumented vandalism. Prehistoric artifacts recovered include burnt rocks, cobble tools, chipped stone debitage, stone projectile points, and pottery. In addition, animal bone, mollusk shell, and carbonized plant remains were found. All of the temporally diagnostic artifacts recovered by Ayers date to the Woodland period and include an Early Woodland Ebenezer cluster arrow point, two Late Woodland triangular arrow points, and pottery fragments representing Middle Woodland and Late Woodland types. Ayers considered the light colored E-horizon to be “sterile” and therefore discontinued further excavation.

Purrington (1975:39) remarks that the shelter was “completely destroyed by local collectors and ASU biology professor” and indicates the site as having only a Middle Woodland period cultural affiliation. This statement gave cause for some reluctance to undertake further investigations. Only in response to continuous urging on the part of the site’s owner, Charles Church, and the threat of impending destruction for highway right-of-way expansion, was the site revisited in 2003. Three one-month seasons (May–June of 2003, 2005, and 2007) of excavation by ASU’s Field Archaeology class under the direction of the author revealed Purrington’s folly. Relatively undisturbed archaeological deposits continued well below and beyond those affected by the explorations of Randall, Church, Pugh, Ayers, and unknown others. These excavations were horizontally delineated according to a one-meter grid system, extending from the shelter wall to the base of the talus in front (Figure 3). Vertical space was subdivided according to observable stratigraphic changes and arbitrary subdivisions of 10 cm. All excavated soil was wet-sieved through 6 mm and 3 mm mesh.

### **Site Stratigraphy**

The vertical profile of Church Rockshelter No. 1 varies from the rear of the shelter to the base of the talus slope below, is affected by the size, shape, and orientation of abundant roof fall, and was formed by a combination of natural and anthropogenic deposition, pedogenic weathering, and bioturbation. In general, five distinct color and texture variations were observed in the excavation profile (Figure 4). These were labeled in the field, from top to bottom, as Zones A through E and served as the primary indicators for subdividing vertical space in excavation.

A follow-up sedimentological study of excavation profiles by ASU geologist Keith T. Seramur revealed a pedogenic A-horizon of fine sandy silt corresponding to Zones A and B, underlain by a pedogenic E-horizon of fine sandy silt corresponding to Zone C, and below that, a Bt-horizon of medium sandy silt with illuvial clays corresponding to Zones D and E.

Zone A consisted of very dark brown fine sandy silt and represented the upper part of the A-horizon. This extended from the grass and weed-covered surface to a depth varying between 5 cm and 20 cm. Zone A contained archaeological remains including stone and ceramic artifacts, fire-cracked rocks, pottery sherds, animal bones, mollusk shells, and carbonized plant remains. Historic artifacts were also present but few.

## CHURCH ROCKSHELTER NO. 1

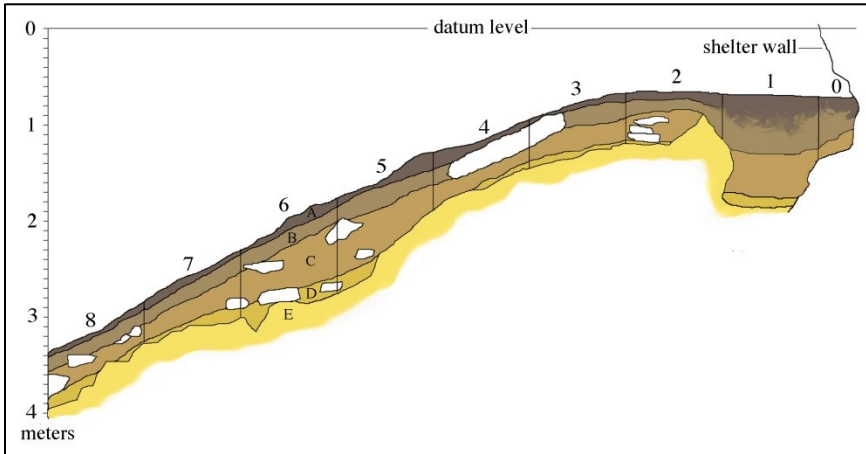


Figure 4. Excavation Profile of Church Rockshelter No. 1.

Temporally diagnostic prehistoric artifacts found in Zone A are mostly Late Woodland (Radford and Dan River series) and Mississippian (Pisgah and Burke series) pottery and mostly small triangular or serrated arrow points. Lesser numbers of stemmed or notched tools also were found. The presence of these earlier tool forms and some Early Woodland fabric-marked and cord-marked pottery along with modern glass and metal in Zone A, however, implicates bioturbation or other postdepositional disturbances that have mixed materials deposited over the past 2,500 years.

Zone B, corresponding to the lower A-horizon, consisted of a lighter brown fine sandy silt extending to a depth varying between 20 and 35 cm. This zone also was rich in archaeological remains and contained the same materials as Zone A. Zones A and B ceramics are characterized by similar frequencies of tempering materials but surface treatments differ significantly; cord marking and simple stamping appear to increase with depth while fabric marking and curvilinear complicated stamping decrease.

Zone C, corresponding to the pedogenic E-horizon, was a starkly lighter yellow-brown fine sandy silt nearly lacking ceramic artifacts. This extended from the base of Zone B to a depth varying between 25 and 95 cm. This zone yielded lithic artifacts, cobbles, fire-cracked rocks, and minor amounts of animal bone and carbonized plant remains (behind the shelter dripline) spanning the Archaic period (9500–3000 BP). Diagnostic projectile point types identified in Zone C include Kirk

Corner-notched, Stanly, Morrow Mountain, Guilford, and Lamoka. Prehistoric pottery found in Zone C was only recovered from units on the lower reaches of the talus slope, well below the shelter's dripline, where evidence of rodent (probably woodchuck) burrowing was observed.

Zone D (Bt-horizon) was a relatively thin (5 to 15 cm), very leached, compact tan medium sandy silt with abundant roof fall, fire-cracked rocks, fewer artifacts, and very few organic remains. Diagnostic artifacts from this zone include two Kirk Corner-notched points and one Knox chert drill with a rounded base, possibly refashioned from a Morrow Mountain point.

Zone E (Bt-horizon) was very compact, light tan, medium sandy silt. Only Units 1, 4, and 5 were excavated into the upper reaches (circa 10 cm) of this zone, and only limited areas of soil could be excavated between large blocks of roof fall and colluvium. Only a few possibly anthropogenic broken river cobbles were recovered from this zone.

In general, the observable zones, while formed primarily by pedogenic weathering, paralleled the existing surface topography. Only within the protected area of the shelter (due to previous excavations) and beneath a very large roof-fall block in Units 3 and 4 did the zonation vary significantly from the rest of the site. Fire-cracked rocks increased in weight from the surface to the base of Zone D, as did evidence of shelter spalling. Indeed, most of the fire-cracked rocks (by weight) may have resulted from incidental exposure of the weathered gneiss to fire rather than deliberate hearth construction (most large angular spalls that could not be removed by hand exhibited burned surfaces); fire-cracked cobbles imported from the nearby river are most abundant by weight and count in Zone C (E-horizon), which also contained the most carbonized plant remains and is roughly associated with the Early and Middle Holocene (9000–3000 BP). In units exhibiting little bioturbation or evidence of prior digging, prehistoric ceramic artifacts were found only in Zones A and B (A-horizon). Animal remains generally decrease through the profile below the surface, although many remained preserved from Early Archaic and Middle Archaic levels (Zones C and D) behind the drip line. Lithic artifacts were abundant throughout the profile above Zone E.

In addition to the zonation described above, evidence of the earlier excavations was observed. These include: (1) the backfilled 1975 excavation units, roughly corresponding to grid units 1, 1E, 2, and 3E1, extending to a depth of approximately 40 cm below the surface; (2) a back-filled cylindrical excavation pit encountered in Grid Unit 1 and

## CHURCH ROCKSHELTER NO. 1

extending to a depth of 60 cm (a 1975 Coca Cola bottle was found in the bottom); and (3) a low mound of excavation fill on the surface east of Unit 2E, possibly resulting from Randall's 1968 excavation of the human burial. Each of these contexts contained historic artifacts such as beverage containers and plastic food wrappers. The low mound of excavation fill also contained scattered skeletal remains of a perinatal human that likely had been buried with or within (*in utero*) the young adult female, and not recognized as human by Randall. In addition, a few small bones and bone fragments of the adult were recovered from these contexts.

Evidence of significant natural disturbances observed include nut-filled concavities created by recent rodent burrowing in Units 1 and 2, within the drip line, and a filled burrow (probably of a woodchuck) in Units 6E and 7E at the base of the talus. Another point to be noted regarding formation processes is the frequent observation of calcium carbonate on especially the undersides of artifacts, animal remains, and rocks throughout the profile. Calcium carbonate that crystallizes from ground water is especially common, if not expected, in calcium-rich sites such as limestone or dolomite caves and rockshelters. However, the bedrock and soils of western Watauga County are highly acidic. No calcium carbonate deposits were found in the nearby Church Shelter No. 2 (Whyte, this volume) that is formed in the same gneiss. A possible explanation for the abundance of calcium carbonate precipitate in Church Rockshelter No. 1 is the frequent use of the cool, shady space as a wallow by cattle. Cattle urine is often rich in calcium (Manson and Vagg 1970).

### Results of Preliminary Analyses

#### *Human Remains*

Human skeletal remains exhumed by Frank Randall in 1968 were re-analyzed by Ann Kakaliouras, former biological anthropologist at ASU. It was determined that the remains were not those of a 35-year-old male, as Randall had estimated, but rather a female who died at about 20 years of age, as indicated by well-worn third molars and unfused medial clavicular epiphyses. The few remaining artifacts that had been recovered along with the skeletal remains include a few crushed rock-tempered, net-impressed pottery fragments assignable to the Late Woodland period and probably dating to between AD 1000 and 1400. The skeleton is relatively complete, although a few small bones and bone



fragments belonging to this individual were found in later excavations. The remains exhibit no evidence of disease or trauma.

The perinatal human skeletal remains recovered primarily from the backfill of the previous excavators form only a partial skeleton. Various elements representing the overall anatomy indicate primary inhumation. Because of the age of the individual (full term) and the fact that most of the bones originated from the area that contained the young adult female remains, it is at least possible that both individuals died obstetrically and were buried together, perhaps in utero.

Evidently, neither Frank Randall nor members of Ayers' crew recognized these remains as human. The first of these remains, part of a parietal bone, was found within a backfilled (N3–S2, E10–15) unit of the 1975 excavations immediately adjacent to a cigarette filter (a photograph of one of Ayers' team members reveals a cigarette pack in his shirt pocket).

### *Archaeofaunal Remains*

Over 7,000 archaeofaunal specimens were recovered by 6 mm mesh. This is an indication of exceptional preservation for a region with generally acidic soils. The thousands of specimens recovered by 3 mm mesh have not been analyzed or enumerated. Most faunal remains were recovered from the protected space inside the dripline, from both disturbed and relatively undisturbed deposits. And most were recovered from above the E-horizon and are, therefore, of more recent age. Specimens recovered from the older E-horizon were predominantly calcined. Shells of freshwater mussels and terrestrial and freshwater gastropods, and osseous remains of all vertebrate classes are included. Many specimens of small terrestrial vertebrates that typically occupy south-facing rockshelters (frogs, toads, box turtles, snakes, and rodents) that had not been burnt likely represent thanatocoenosis. Remains of aquatic fauna and larger terrestrial and avian fauna, especially if they are burnt or exhibit perimortem fracture, are more likely the products of human consumption. These include the fishes (Cyprinidae), aquatic salamanders (*Cryptobranchus alleganiensis*), aquatic turtles (*Chelydra serpentina*), birds (four species), and several species of medium to large mammals, most notably White-tailed Deer (*Odocoileus virginianus*). Of particular interest was the recovery of 10 bones and teeth of American Porcupine (*Erethizon dorsatum*), a new record for Holocene North Carolina (Whyte 2010).

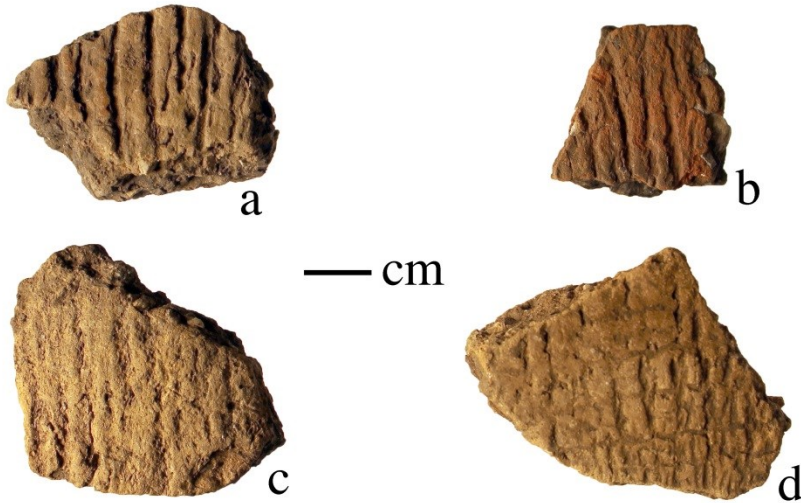


Figure 5. Early Woodland cord-marked pottery from Church Rockshelter No. 1.

### *Archaeobotanical Remains*

Plant remains recovered in all screen meshes include primarily carbonized wood and nutshell that remain to be formally analyzed. They undoubtedly resulted primarily from fueling of cooking/lighting fires also evidenced by burnt bones and the great quantity of burnt rocks. Carbonized nutshell casually observed in abundance indicates at least some late summer-early fall use of the shelter.

### *Ceramic Artifacts*

The 2003–2007 excavations yielded hundreds of pottery sherds, 233 of which are larger than 2 cm. Recovered almost exclusively from the A-horizon and disturbed deposits (from previous excavators and mammal burrows), these represent a variety of types and time periods and remain to be formally analyzed. Figures 5 through 9 depict typical examples, which include Early Woodland through Late Mississippian types. Early Woodland period Watts Bar/Swannanoa series ceramics from the site are fabric or cord marked and tempered with sand and finely crushed quartz or schist (Figures 5 and 6). Middle Woodland ceramics are plain and tempered with sand and crushed quartz (Figure 7). Limestone tempered, looped-net impressed pottery (Figure 8) with scraped interiors may be assigned to the Late Woodland Radford Series.

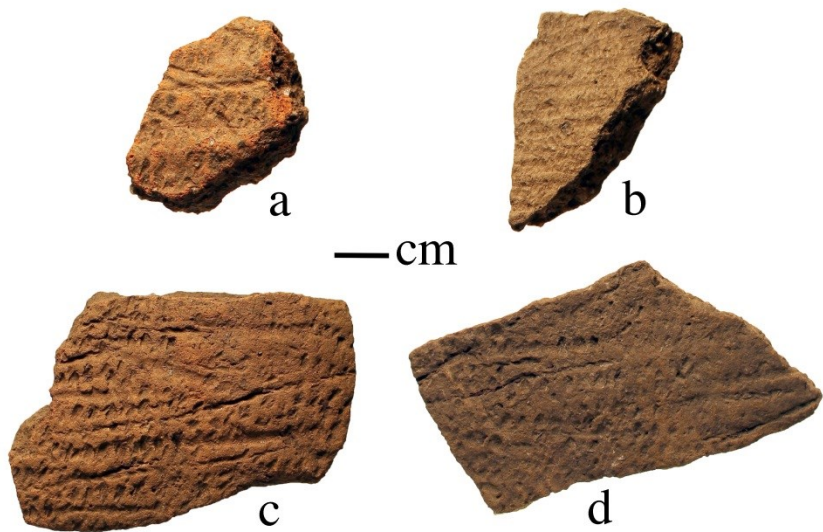


Figure 6. Early Woodland fabric-marked pottery from Church Rockshelter No. 1.



Figure 7. Middle Woodland plain pottery from Church Rockshelter No. 1.

However, these traits are also found in combination on earlier Middle Woodland pottery in the lower Watauga Valley (Boyd 1986; Riggs 1985). A bright orange, low-fired clay pooled in the valleys of the net impressions on the exterior surface appears to have resulted from vessel use or from the deliberate application of an iron-rich clay slip (Figure 8). Mississippian Burke series ceramics, only 6% of the assemblage, are

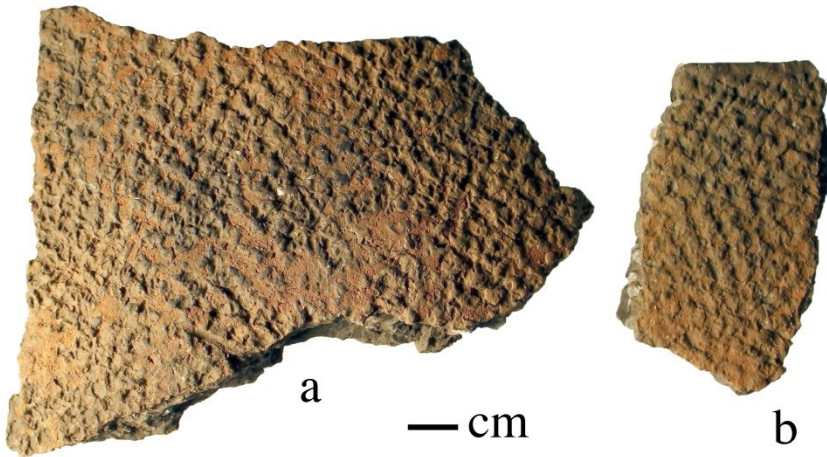


Figure 8. Late Woodland net-marked pottery from Church Rockshelter No. 1.

curvilinear stamped or cob impressed and tempered with crushed soapstone (Figure 9).

### *Stone Artifacts*

The many thousands of stone artifacts recovered include debitage (bipolar, bifacial thinning and retouch, and core reduction), chipped-stone tools (projectile points, scrapers, knives, drills, and sundry flake tools), cobble tools (hammers, anvils, grinding stones), and burnt rocks. In addition, hundreds of unmodified cobbles and pebbles were recovered that humans must have brought to the site for some purpose.

Temporally diagnostic stone tools recovered (Figures 10–13) indicate periodic shelter use throughout the Holocene. Early Archaic (ca 9500 BP) Kirk Corner-notched tools were found in the Bt-horizon and lower part of the E-horizon (Figure 10*i–l*). These are made from locally available quartz and Ridge and Valley (Knox) chert and Shady chalcedony. This horizon also contained Middle Archaic Stanly (ca 8000 BP) and Morrow Mountain (ca 7500 BP) tools (Figure 10*b–h*). The latter are particularly numerous, in part because the expeditious haft and frequent use of dispensable quartz. A Lamoka point (Figure 10*a*) found in the lower part of the E-horizon dates to the Terminal Archaic period (ca 4000 BP) and may have moved down through the profile via bioturbation.

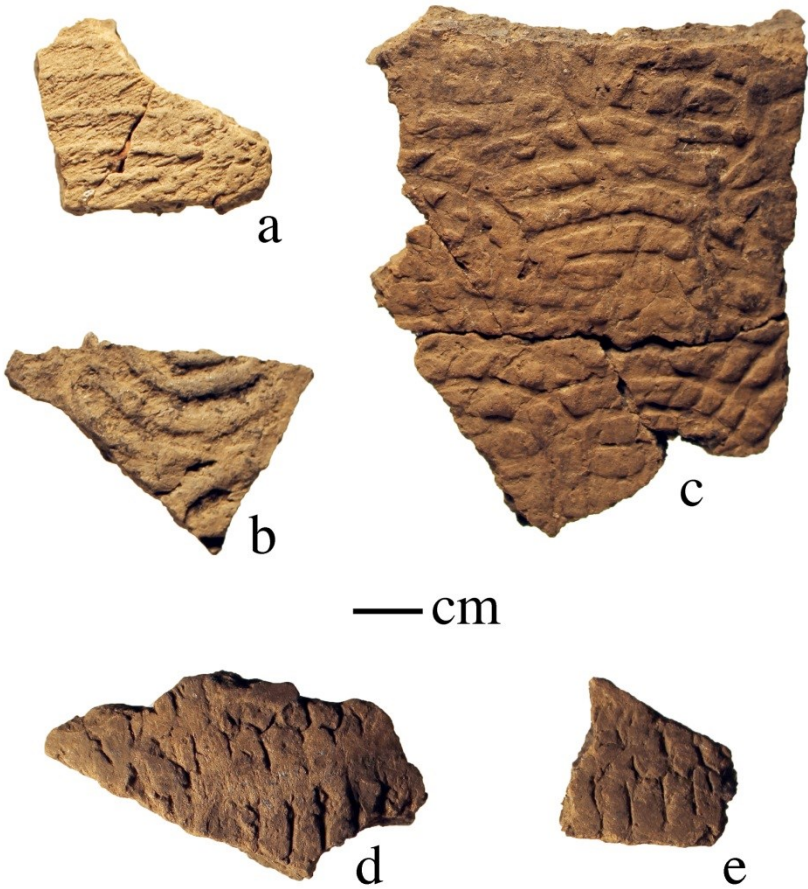


Figure 9. Mississippian curvilinear stamped (a–c) and cob-marked (d–e) pottery from Church Rockshelter No. 1.

The upper part of the E-horizon yielded Middle Archaic period Morrow Mountain and Guilford type tools (Figure 11*e–o*), Late Archaic (ca 4000 BP) Appalachian stemmed knives (Figure 11*a*), and a variety of small, stemmed projectile points (Figure 11*b–d*) that could date to the late Middle Archaic, Late Archaic, or Early Woodland period.

The A-horizon contained a mix of Middle Archaic through Late Woodland/ Mississippian tools (Figures 12 and 13). Triangular and serrated arrow points of the Woodland and Mississippian periods were restricted to this horizon. The latter, with the exception of larger



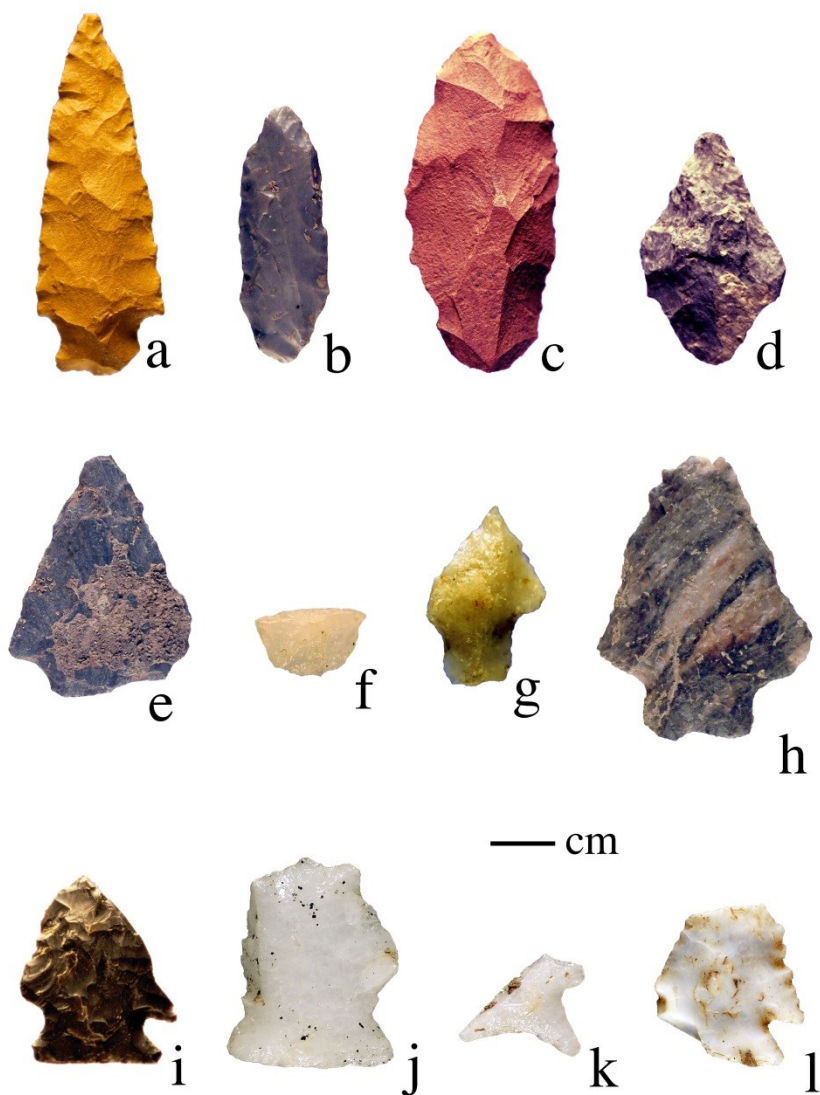


Figure 10. Diagnostic chipped-stone tools from the lower E and Bt Horizons at Church Rockshelter No. 1.

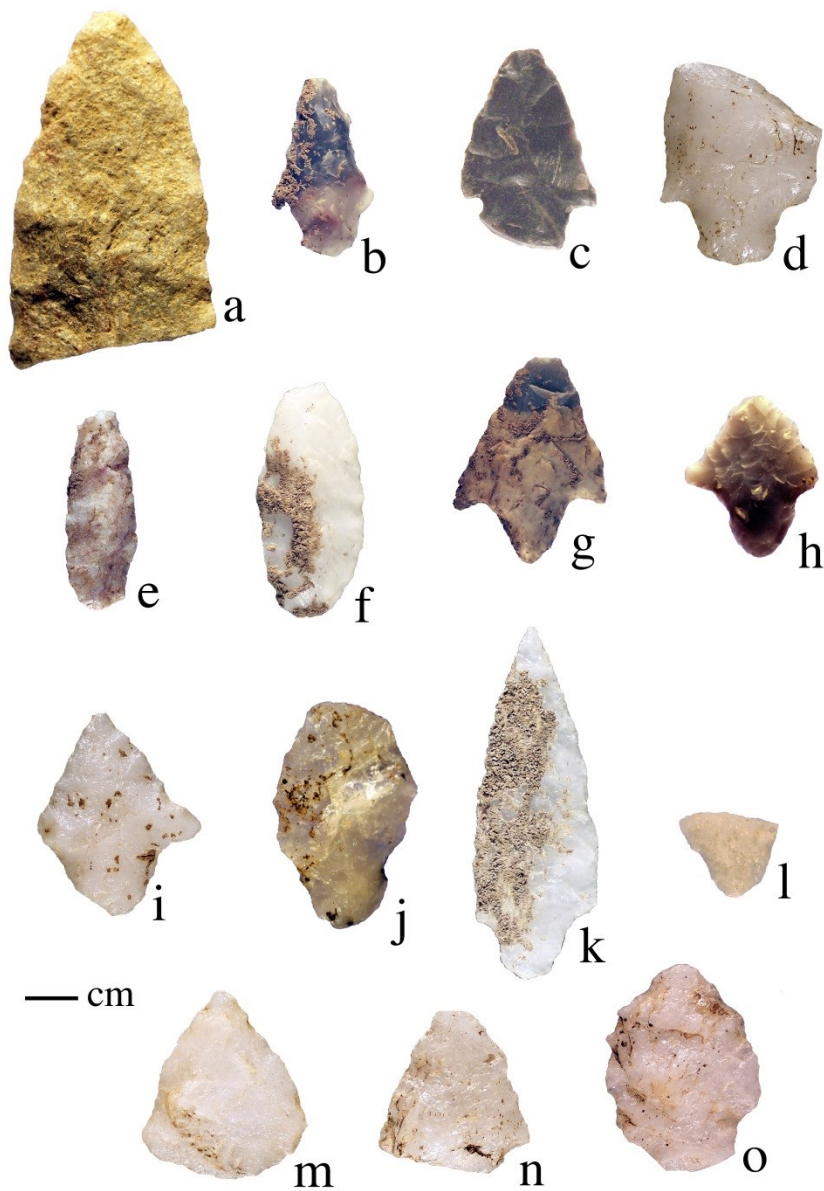


Figure 11. Diagnostic chipped-stone tools from the upper E Horizon at Church Rockshelter No. 1.

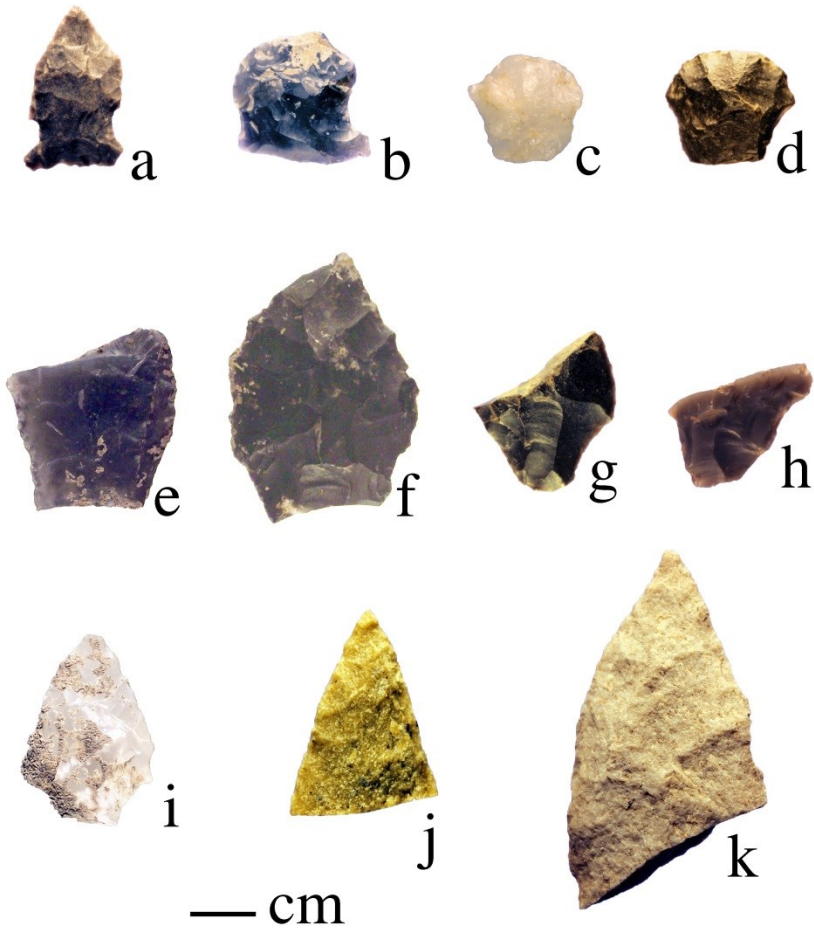


Figure 12. Diagnostic chipped-stone tools from the A Horizon at Church Rockshelter No. 1.

triangular points of the Early and Middle Woodland periods that are made of quartz (Figure 13*r-t*), are almost all made of chert and chalcedony from the Ridge and Valley province to the west.

### Radiocarbon Dates

To date, four radiocarbon assays have been obtained for the site (Table 1). The first (Beta #183168) was obtained from < 0.1 g carbonized organic residues adhering to the interior of a pottery sherd



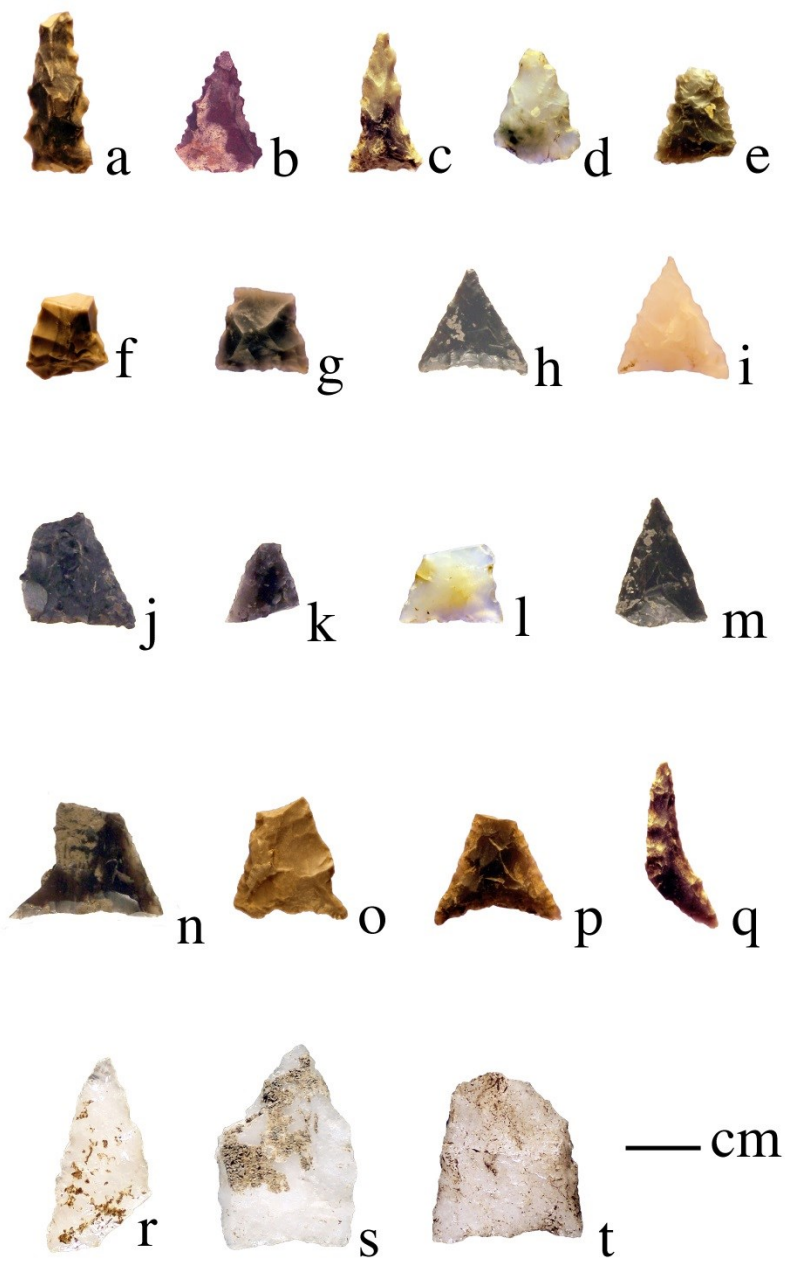


Figure 13. Triangular arrow points from the A Horizon at Church Rockshelter No. 1.

## CHURCH ROCKSHELTER NO. 1

Table 1. Radiocarbon Sample Data from Church Rockshelter No. 1 (31WT155).

Material	Zone	Sample No.	Calibrated Assay
Pottery Residue	B	Beta-183168	1170–1060 BP
Wood charcoal	C	Beta-217046	1540–1420 BP
Porcupine bone	D	Beta-264672	7670–7580 BP
Porcupine bone	C	Beta-264673	7570–7460 BP

(Figure 7) recovered from the base of Zone B (Lower A-horizon) in Unit 5, on the talus slope beyond the shelter's dripline (Figure 14). This area of the site showed no evidence of prior excavation or other major disturbance to contexts. The sherd is part of the body of a quartz- and sand-tempered vessel and ranges in thickness between 6.2 and 8.7 mm. The exterior surface is smoothed while the interior surface is scraped. The exterior is oxidized and the interior is reduced, possibly indicating that the vessel was inverted and surface-fired. Biotite schist grains and minor flecks of mica in the paste suggest local or near-local manufacture. The resulting assay on the carbonized residue, AD 870 (calibrated 1080 BP), fits well with expectations based on typology and vertical context. Other items found in this context include two large triangular arrow points made of vein quartz (Figure 13*r-s*), and additional pottery sherds tempered with quartz and sand. The dated sherd exhibits a blend of traits common to the early part of the Late Woodland period. The mix of sand and crushed quartz is a trait shared by both Piedmont (Grayson and Uwharrie) and southern Appalachian (Cane Creek and late Connestee) types, yet the interior scraping is a trait of the former and the plain exterior surface is more typical of the latter (Ward and Davis 1999).

The second assay (Beta #217046) was obtained from a small (< 0.5 g) sample of wood charcoal adhering to the underside of a large block of roof fall (Figure 14). Directly beneath this rock was a concentration of fire-cracked rocks and carbonized plant and animal remains. The resulting assay is AD 430 (calibrated 1520 BP). This suggestion of a Middle Woodland age for these deposits is suspicious, as no pottery was recovered from contexts beneath the rock. The underlying sediments appear to correspond with Zone C (the Archaic period E-horizon) but are less leached because of the protection provided by the rock. A small, stemmed, and slightly serrated projectile point made of chalcedony

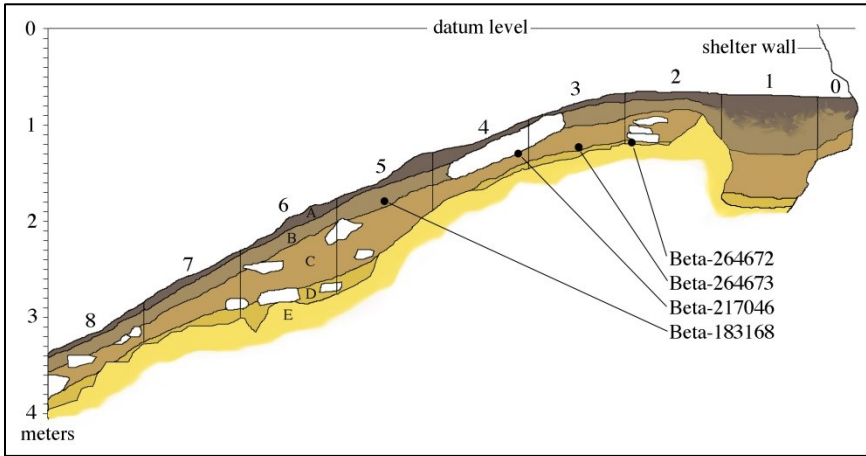


Figure 14. Approximate locations in the profile of radiocarbon dating sample sources.

(Figure 11*b*) was found immediately beneath the rock. Several artifacts of this type, all constructed of Ridge and Valley province cryptocrystalline rocks such as jasper, chert, and chalcedony, were recovered from various contexts on the site. Resorting to the archaeology of that region for typological reference assigns these to the Ebenezer “cluster” proposed by Lewis and Kneberg (1957) and developed by Lafferty (1981).

The remaining two assays were obtained from porcupine bones in an attempt to elucidate the timing and causes of extirpation of the American Porcupine (*Erethizon dorsatum*) from the Southern Appalachian region (Whyte 2010). Although ten specimens identified as *E. dorsatum* were recovered from the site, only three of the larger specimens potentially containing collagen were submitted to Beta Analytic, Inc. for collagen extraction and AMS radiocarbon dating. A left maxillary fourth premolar with surrounding bone did not yield datable collagen. A left premaxilla fragment (Beta #264672) recovered from Unit 2E, upper Zone D (Figure 14) yielded a conventional radiocarbon age of  $6780 \pm 50$  BP (calibrated 7670–7580 BP). Temporally diagnostic artifacts recovered from upper Zone D include an Early Archaic Kirk Corner-notched projectile point (Figure 10*l*), a Morrow Mountain projectile point (Figure 10*d*), and a Knox chert drill with a rounded base, possibly reworked from a Morrow Mountain point (Figure 10*b*).

## CHURCH ROCKSHELTER NO. 1

A carbonized left mandible fragment (Beta #264673) recovered from Unit 3E, lower Zone C (Figure 14), approximately 70 cm below surface, yielded a conventional radiocarbon age of  $6620 \pm 50$  BP (calibrated 7570–7460 BP). A Kirk Corner-notched projectile point of Knox chert (Figure 10*i*) was found in the same zone of the same unit.

Although the two porcupine bones were recovered from different but contiguous zones, their nearly overlapping radiocarbon ages point the possibility that they represent an individual porcupine. These two radiocarbon dates and typological associations conservatively indicate Early through Middle Holocene (9000 to 3000 BP) deposition of the porcupine remains recovered from Church Rockshelter No. 1. Porcupine remains have been recovered from Holocene deposits at several other cave, rockshelter, and open-air sites in the Southern Appalachian region (e.g., Barkalow 1961; Benthall 1990; Guilday et al. 1977, 1978; Hoffman 1987; Manzano 1986; Mercer 1897; Parmalee 1963; Parmalee and Guilday 1965; Weigel et al. 1974), and porcupines have been observed relatively recently as far south in the Appalachians as western Maryland (Harman and Thorig 1968). No confirmed historical sightings are reported for North Carolina. Furthermore, the porcupine is not mentioned in native folklore or myth from the southern Appalachians (e.g., Mooney 1970), nor is there a word for porcupine in the Cherokee language (Tom Belt, Cherokee Language Instructor, Western Carolina University, personal communication). Porcupine-quill art and ornamentation among southeastern Native Americans are mentioned by Bartram (Harper 1998) for the Creek, and by Timberlake (King 2007) for the Cherokee; quills were likely imported by way of exchange or gifts from groups farther north.

Taken together, remains recovered from these sites indicate the presence of American Porcupine throughout the Appalachians prior to 1000 BP with perhaps decreasing numbers after the Mid-Holocene (ca 5000 BP). The hemlock decline in Appalachian forests at approximately 4800 BP (Delcourt et al. 1998) may have influenced an initial reduction in numbers; hemlocks are crucial to eastern porcupines for refuge and food (Griesemer et al. 1998). The apparent lack of porcupine remains on southern Appalachian sites (below Virginia) dating more recently than AD 500 suggests the possible influence of the Medieval Warm period (AD 900–1300) on the extirpation of *E. dorsatum* from the region. Climate change may have necessitated increased predation by carnivores such as mountain lions, possibly due to a decline in preferred prey such as deer. The evident value of porcupine quills and meat among recent

native North American cultures raises the possibility that prehistoric humans contributed, at least in part, to their demise. Evidence of the first permanent human settlement of the higher elevations of the Appalachian Summit dates to the Medieval Warm period (Whyte 2003), suggesting the possibility of over-predation by humans on already-stressed porcupine populations: “Because of the popularity of porcupine quill work this large, conspicuous, slow-breeding rodent may have been exterminated by Indians in marginal areas where it was never common” (Parmalee and Guilday 1965:82).

### **Conclusion**

Archaeological evidence from Church Rockshelter No. 1 (31WT155) in Watauga County, North Carolina, indicates periodic use of the small shelter throughout the prehistoric Holocene for temporary encampment, human burial, and possibly other ritual behaviors. The site provides the first reported evidence of American Porcupine (*Erethizon dorsatum*) in Holocene North Carolina and some of the best-preserved archaeofaunal remains from Early and Middle Archaic times in the Appalachian Summit region. While structured analyses of most of the material remains from the site remain to be completed, some preliminary observations and thoughts about Appalachian Summit typologies and human settlement are worth reporting here.

Rockshelters were important to humans seasonally visiting the Appalachian Summit since the early Holocene Epoch. Although Purrington (1983:134) observed that in the Early Woodland period (2700–2300 BP) of the upper Watauga valley “Swannanoa culture shows a two- to threefold increase in occupation of rockshelters,” this conclusion is founded on a naïve understanding of artifact breakage and statistics; the preceding Archaic period components are identified almost exclusively by projectile points that are rarely represented by more than one fragment, while Early Woodland components are represented by projectile points *and* numerous fragments of ceramic vessels. Many Archaic period occupations of rockshelters may have resulted in the deposition of no temporal indicators, while Woodland period occupations are almost unavoidably manifested by the many fragments of fragile ceramic vessels.

It is in the early part of the Late Woodland, a cultural period corresponding with the Medieval Warm climatic period, that the northwestern counties of North Carolina see the first evidence of permanent human settlement (Whyte 2003). Agricultural village sites of

this warmer time are found on most of the major floodplains of the Watauga. These settlers may have expanded up the New, Yadkin, and Catawba river valleys from the north, east, and south; material-cultural and architectural affinities with the Late Woodland Dan River phase of the western Piedmont are especially in evidence (Mathis and Moore 1984; Whyte 2003). Yet contemporaneous Late Woodland and Mississippian (Burke and Pisgah phase) pottery is also regularly found in the adjacent rockshelters, possibly indicating either continued use of shelters for special purposes such as human burial (Whyte 2005) or warm season visits from residences in the warmer lowlands during the subsequent Little Ice Age.

### Notes

*Acknowledgments.* I am indebted to the late Charles Church for permission to excavate on his property and for all the help and humor he provided in the process. Keith C. Seramur and Lori Demosthenes conducted pedological soil analysis. Ann Kakaliouras and Elizabeth Brandt provided analyses of human remains. The Cratis D. Williams Graduate School, the College of Arts & Sciences, and the Department of Anthropology at Appalachian State University funded research at Church Rockshelter No. 1.

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# **ARCHAEOLOGICAL INVESTIGATIONS AT CHURCH ROCKSHELTER NO. 2 (31WT39), WATAUGA COUNTY, NORTH CAROLINA**

**by**

**Thomas R. Whyte**

## **Abstract**

Church Rockshelter No. 2 (31WT39), located on the Watauga River in Watauga County, North Carolina was vandalized in the early 1970s and explored by Appalachian State University Archaeologists in 1975 and 2011. This article summarizes the results of all three excavations. Lithic and ceramic artifacts as well as plant and animal remains recovered indicate periodic use, primarily in the Early and Late Woodland/Mississippian periods, for brief residence and possibly ritual activities. Most of the artifacts recovered have material and typological affinities with the Ridge and Valley province 20 kilometers downstream and to the west of the site.

Church Rockshelter No. 2 (31WT39), referred to hereafter as CR2, overlooks the left bank of Watauga River to the southeast, 0.5 km below the mouth of Dutch Creek (Figure 1). The Cranberry Gneiss outcropping that forms the shelter lies immediately below Watauga River Road (SR 1116), 700 m north of its intersection with NC Hwy 194. The floor of the shelter is roughly 3 m above the river at an elevation of 805 m above mean sea level (Figure 1). Currently there are two small sheltered spaces with nearly level floors created by sediments accumulating against blocks of roof fall. One (the lower shelter) occurs at the northern end of the shelter (Figure 2) and is 1 m lower than the other (upper shelter), at the south end (Figure 3). The latter space is walled by a very large block of roof fall to the east, just beyond the drip line, and by two smaller slabs to the west near the wall of the shelter. The lower shelter floor space is walled by a block of roof fall to the east and by the shelter wall to the west. Large American beech and maple trees grow just beyond the drip line at the northern edge of the upper shelter.

The site's owner, Charles Church, recalled finding many projectile points on the ground surface of the shelter in the mid 1900s. He also recalled seeing the fragments of a prehistoric ceramic vessel resting on the block of roof fall that forms the eastern wall of the southernmost

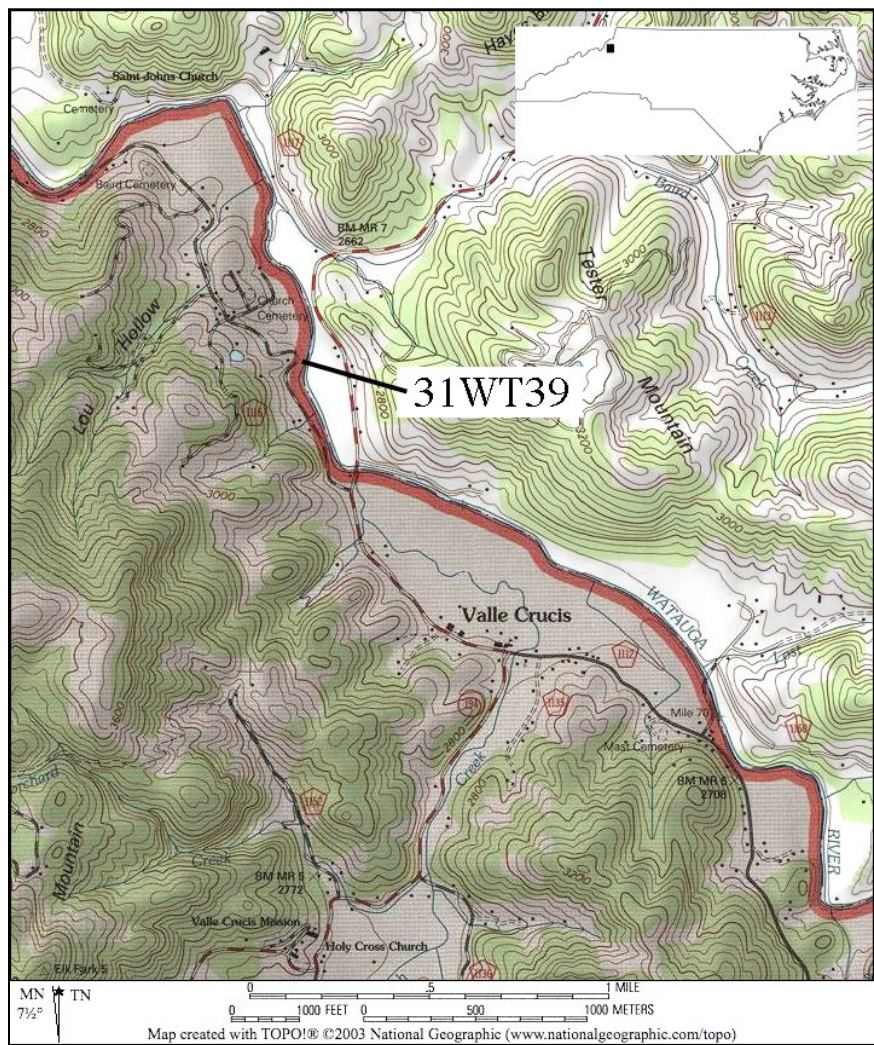


Figure 1. Location of Church Rockshelter No. 2 (31WT39) in Watauga County, North Carolina (Valle Crucis Quadrangle).

(upper) sheltered space. The present whereabouts of these artifacts is unknown.

In the early 1970s Larry Waters, a local collector, visited the shelter and discovered that a pit had recently been excavated in the northern sheltered space. He referred to the site as “Campbell Rockshelter” and collected materials from the vandal spoil. He then gave these artifacts



## CHURCH ROCKSHELTER NO. 2



Figure 2. Lower area of Church Rockshelter No. 2 (31WT39) as viewed from the east.



Figure 3. Upper area of Church Rockshelter No. 2 (31WT39) as viewed from the northeast.

along with some notes to the Appalachian State University Department of Anthropology. The specimens include 86 pieces of pottery, one large piece of fired potter's clay, 16 stone artifacts, and 31 animal bones. If the vandals used screens they rejected some projectile points, pottery sherds, and bones. Most of these artifacts had been labeled in black ink with specimen numbers CR-SS-1 through 126. "CR" evidently stands for "Campbell Rockshelter," "SS" may mean "Surface Survey," and the appended numbers are specimen numbers. The box containing these specimens also contained a bag of unlabelled artifacts, primarily projectile points, that because of their large size and good condition, are not likely to have been found in a vandal spoil pile. Although some of them are similar in type and material to ones recovered by the subsequent ASU excavations, it cannot be assumed that they are indeed from the site.

In April 1975 Appalachian State University student Steve Crisco recorded the site for the North Carolina Office of State Archaeology. He reports on the form that "someone has been disrupting the site; two screens were left at the shelter." It was this observation and the landowner's amenability to exploration that excavations ensued three months later.

## CHURCH ROCKSHELTER NO. 2

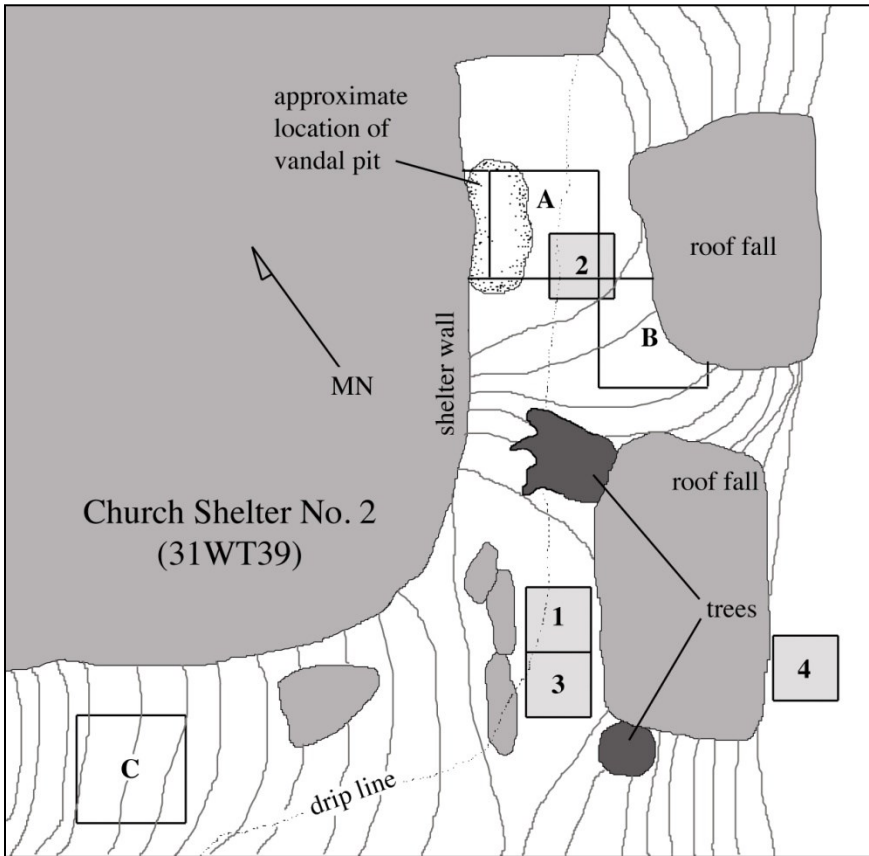


Figure 4. Floor plan of Church Rockshelter No. 2 (31WT39) excavations; open squares are 1975 excavation units.

In July 1975 Harvard G. Ayers of Appalachian State University taught a field archaeology class that explored CR2 and several other archaeological sites in Watauga County. According to Ayers' field notes that were transcribed from a cassette recording, the students excavated three 5 ft by 5 ft squares vertically subdivided in 0.25-ft arbitrary levels (Figure 4). Sediment was dry-sieved through 1/4-inch mesh. After establishing a grid datum point (0, 0) near the drip line at the south (upper) end of the shelter and a base line with a declination of  $37^{\circ}20'$ , 5 ft by 5 ft units were outlined at grid north 24 to 29 ft-east 0 to 5 ft, north 19 to 24 ft-east 5 to 10 ft (the lower part of the shelter), and north 2 to south 3 ft-west 14 to 19 ft (the slope above the upper part of the shelter). These units were designated N24–29E0–5, N19–24E5–10, and N2–



S3W14–19, respectively. In this writing and in Figure 3 they are identified as units A, B, and C, respectively.

Unit A was excavated to the base of Level 7 (1.82 ft below surface). It was discovered that the western third of this unit intruded a backfilled pothole, probably the excavation observed earlier by Larry Waters. Unit B, situated beyond the drip-line to the southeast, was excavated in nine levels to a depth of 2.5 ft. The eastern third of this unit was occupied by a very large immovable block of roof fall. The third unit (C), on the slope above the upper part of the shelter, was excavated to a depth of about 4 ft, and no artifacts were recovered.

Ayers' excavations resulted in neither an artifact analysis nor a report of investigations. Artifacts had been stored in brown paper bags with water-soluble ink labeling, and subsequent water damage dissolved provenience data that had to be reconstructed, with limited success, through comparisons with scant field notes. Although reference to photo-documentation of this fieldwork exists, only two color transparencies have been found.

An abundance and array of artifacts and animal remains was recovered from the two units (A and B) in the lower part of the shelter. These include 294 stone artifacts consisting of a variety of cobble and pebble tools, fire-cracked rocks, cores, debitage, and projectile points. Projectile points typologically representing Middle Archaic through Late Woodland periods are included. Many of the 68 pottery sherds recovered by Ayers are conjoinable with those recovered by Waters from the vandal spoil and represent Early Woodland and Late Woodland types.

Burton L. Purrington (1975:12) mentions in his Watauga County survey report that the main component of the site (formerly numbered 31WT191) "appears to be Pigeon with a lesser Pisgah component and a slight Savannah River and Guilford component." Closer inspection of projectile points and pottery recovered by Waters and Ayers (discussed in more detail below) suggests that Purrington was confusing Early Woodland period Watts Bar phase with Middle Woodland Pigeon phase materials and Mississippian Pisgah phase with Late Woodland Dan River phase materials. A bipolar core of Knox chert was probably misinterpreted as the base of a Guilford Lanceolate type (Middle Archaic) projectile point. The Savannah River component was suggested on the basis of the recovery of one Savannah River Stemmed/Appalachian Stemmed knife.

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In June 2011, ASU's Field Archaeology class under the direction of the author revisited the site for four days to relocate Ayer's excavations and to sample the site's contexts with finer recovery techniques. Of particular interest was the fact that the site yielded evidence of extensive use in the Early Woodland period (ca 600–400 BC), while another rockshelter nearby (31WT155) yielded more evidence of earlier and later use. Another goal was to obtain an eyewitness understanding of the site's contents and contexts for the completion of a report integrating all three investigations of the site.

### Excavation Methods

A surface inspection of the site and rock faces and recesses revealed only modern litter on the surface and no evidence of prehistoric rock art. The original datum point of Ayers' 1975 excavations, if it had been marked with a stake, was not found. Poison ivy vines and leaf litter were removed from the two level shelter spaces, and 1 m x 1 m excavation units were delineated irrespective of a grid system. One (Unit 2) was placed in the lower shelter where the Ayers excavations of 1975 had been conducted (Figure 4). Two contiguous units (Units 1 and 3) were placed in the upper shelter space between large blocks of roof fall (Figure 4). A fourth (Unit 4) was placed below and beyond the dripline at the base of the large roof-fall block that forms the eastern wall of Units 1 and 3 (Figure 4). Using the highest corner of each square as a surface reference, excavation proceeded by troweling in 10 cm levels. All sediment was wet screened through nested six and three-millimeter mesh. A preponderance of roots and cobbles and boulders of angular gneiss hampered excavation.

### Excavation Results

Excavation of Unit 2, at a depth of 20 cm, clearly revealed in the northern two thirds the outline of Ayers' unit N24–29E0–5 (Figure 4). An undisturbed leached B-horizon encountered at 15–20 cm in the southern and eastern edges of this unit yielded prehistoric ceramic and lithic artifacts similar to those recovered in the 1970s. It was concluded that the vandalism and excavations of the 1970s had impacted most of the lower shelter area.

Excavation of Units 1 and 3 of the upper shelter space revealed no evidence of previous excavation and a natural soil profile consisting of 12 cm of dark brown silty loam (A-horizon) underlain by light yellowish brown sandy silt loam (B-horizon) that gradually yellowed and became



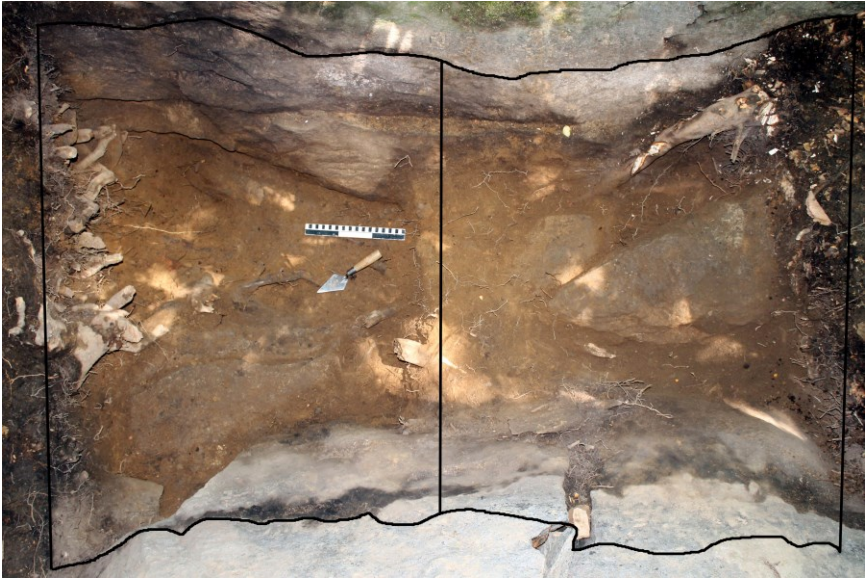


Figure 5. Completed excavation Units 1 (left) and 2 (right) of the upper shelter area in Church Rockshelter No. 2 (31WT39).

more compact with depth (E-horizon). Excavation of Units 1 and 3 was terminated at a depth of 60 cm in the yellowish brown sandy silt loam (Figure 5). Also at this depth the floor of these units begins to expand eastward under the large roof fall, indicating that the boulder may have fallen in the Holocene epoch, and that archaeological evidence may exist beneath it. All horizons contain numerous angular blocks of gneiss and are intruded by roots from the adjacent beech and maple trees.

Prehistoric and historic artifacts were recovered from the first 20 cm (A- and B-horizons), but only prehistoric lithic and ceramic artifacts were recovered from the E-horizon. This indicates some degree of contextual integrity to the deposits in this part of the shelter. Small amounts of carbonized botanical remains, yet to be analyzed, were observed scattered throughout the profile. Animal remains recovered from the upper shelter area are few, small (recovered only in 0.3 mm mesh), and mostly calcined.

Excavation of Unit 4 on the first terrace to a depth of 0.8 m yielded no certain evidence of prehistoric artifacts. A vein quartz cobble spall with water-tumbled cortex recovered from between 10 and 20 cm may be diluvium. A gravel bar began to emerge at 0.8 m below surface. If any

artifacts had accumulated below the shelter on the first terrace may have been swept away by historical flood events.

### *Stone Artifacts*

Combined, the three excavation events at CR2 resulted in a collection containing 415 stone artifacts (this excludes materials recovered by 3 mm wet screening in 2011). Analyses of artifact spatial distributions and patterning among discrete variables within the assemblage are limited because of variable excavation and recovery methods and loss of some provenience data. The artifacts recovered and retained include fire-cracked rocks, modified and unmodified cobbles and pebbles, and chipped-stone tools and debitage.

Fire-cracked and reddened rocks were surprisingly few and included more from alluvial sources (the nearby river) than colluvial material that had broken away from the shelter face. The latter may represent inadvertent exposure to fire while the former may have been carefully selected for hot-rock boiling and other warming/cooking processes or recycled from cobble tools. The many unmodified river cobbles and pebbles recovered from either the upper or lower shelter areas could not have been deposited by flood events and thus had functions that left no clear physical evidence. Definitive cobble tools include five artifacts: two appear to have functioned as hammers in direct percussion; one shows use as a bipolar percussion hammer (Figure 6a); one is a pitted cobble that likely resulted from bipolar percussion or nut cracking (Figure 6b); and one is a pitted cobble/hammer. All were recovered from the lower shelter area.

Chipped-stone debitage, recovered primarily from the 1975 and 2011 excavations, and primarily from the lower shelter area, include a combination of byproducts of bifacial thinning (soft-hammer percussion), core reduction (primarily hard-hammer percussion), and bipolar (compression) flaking (Table 1). These include both flakes and cores of various local (quartz) and non-local materials. The latter primarily derive from Ridge and Valley formations some 20 km to the west and include Knox chert, Shady chalcedony, Del Rio jasper, and Erwin quartzite. A few artifacts of Mount Rogers formation rhyolite from 20 km to the northeast, and Uwharrie formation rhyolite from 40 or more km to the east were also recovered.

Chipped-stone debitage found in the upper shelter area was sparse. Only 25 flakes and cores were recovered by 6 mm mesh, and 102 flakes

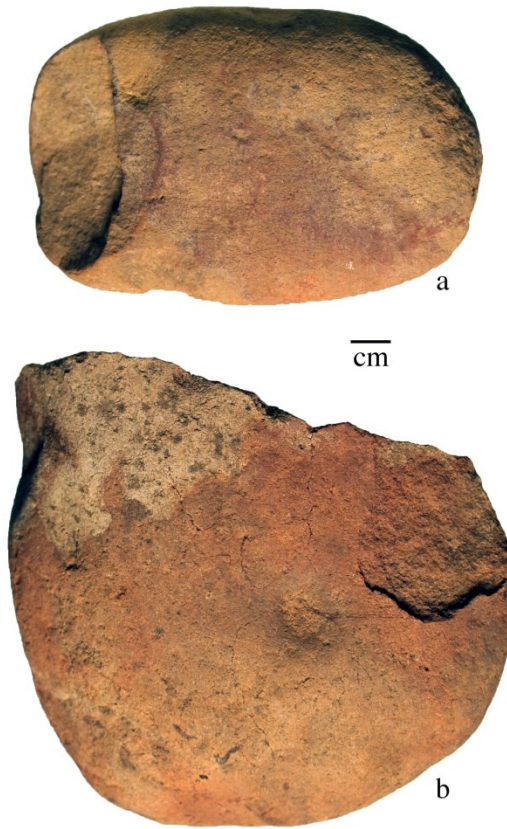


Figure 6. Examples of cobble tools from Church Rockshelter No. 2 (31WT39): (a) hammer and (b) pitted cobble/anvil.

by 3 mm mesh from the two units. Raw material representation does not vary significantly between the two shelter areas or across vertical space.

Remarkably few ( $n=7$ ) utilized flakes or flake tools were identified among the debitage, yet only macroscopic (10x) examination of flake edges was undertaken to identify evidence of use. All but one exhibits unifacial edge damage or retouch. The exception is a bilaterally serrated triangular flake that may have been used as an arrowpoint.

Temporally diagnostic knives and projectile points recovered span the Middle Archaic through Late Woodland periods. Waters and Ayers, whose excavations took place in the more commodious lower shelter

## CHURCH ROCKSHELTER NO. 2

Table 1. Summary of Lithic Artifacts from Church Rockshelter No. 2 (31WT39).

Provenience	Artifact Type	Raw Material	Qty
Lower Shelter	amorphous core	chalcedony	1
Lower Shelter	amorphous core	crystal quartz	1
Lower Shelter	amorphous core	Knox chert	3
Lower Shelter	amorphous core	vein quartz	1
Lower Shelter	amorphous core	yellow jasper	3
Lower Shelter	Appalachian stemmed knife	quartzite	2
Lower Shelter	biface	Knox chert	2
Lower Shelter	biface	metasandstone	1
Lower Shelter	biface	red jasper	1
Lower Shelter	bifacial thinning flake	chalcedony	6
Lower Shelter	bifacial thinning flake	Del Rio yellow jasper	2
Lower Shelter	bifacial thinning flake	Knox chert	22
Lower Shelter	bifacial thinning flake	metasandstone	2
Lower Shelter	bifacial thinning flake	Mount Rogers rhyolite	3
Lower Shelter	bifacial thinning flake	petrified wood	1
Lower Shelter	bifacial thinning flake	quartzite	15
Lower Shelter	bifacial thinning flake	Silverstone quartzite	1
Lower Shelter	bifacial thinning flake	Uwharrie rhyolite	5
Lower Shelter	bifacial thinning flake	vein quartz	16
Lower Shelter	bipolar core	Knox chert	2
Lower Shelter	bipolar core	vein quartz	1
Lower Shelter	bipolar flake	crystal quartz	4
Lower Shelter	bipolar flake	Knox chert	5
Lower Shelter	bipolar flake	vein quartz	2
Lower Shelter	bipolar hammer stone	sandstone	1
Lower Shelter	blade	Knox chert	3
Lower Shelter	burnt rock	alluvium	30
Lower Shelter	cobble spall	vein quartz	15
Lower Shelter	core	chalcedony	1
Lower Shelter	core	Knox chert	3
Lower Shelter	core	rose quartzite	1
Lower Shelter	core	vein quartz	1
Lower Shelter	core flake	chalcedony	9
Lower Shelter	core flake	Knox chert	28
Lower Shelter	core flake	quartzite	2
Lower Shelter	core flake	vein quartz	29
Lower Shelter	core rejuvenation flake	Knox chert	1

Table 1 continued.

Provenience	Artifact Type	Raw Material	Qty
Lower Shelter	flake fragment/shatter	crystal quartz	1
Lower Shelter	flake fragment/shatter	Knox chert	19
Lower Shelter	flake fragment/shatter	Mount Rogers rhyolite	1
Lower Shelter	flake fragment/shatter	quartzite	2
Lower Shelter	flake fragment/shatter	vein quartz	61
Lower Shelter	hammer	alluvium	2
Lower Shelter	hammer/pitted cobble	alluvium	1
Lower Shelter	Iddins projectile point	vein quartz	1
Lower Shelter	Lamoka arrowpoint	chalcedony	1
Lower Shelter	Morrow Mountain ppt	Uwharrie rhyolite	1
Lower Shelter	Nolichucky arrowpoint	chalcedony	1
Lower Shelter	Nolichucky arrowpoint	rose quartzite	4
Lower Shelter	pebble	alluvium	13
Lower Shelter	pentagonal arrowpoint	Knox chert	1
Lower Shelter	Pisgah serrated arrowpoint	chalcedony	1
Lower Shelter	Pisgah serrated arrowpoint	vein quartz	4
Lower Shelter	pitted cobble/burnt rock	sandstone	1
Lower Shelter	projectile point	chalcedony	1
Lower Shelter	projectile point	metasandstone	1
Lower Shelter	projectile point	rose quartzite	1
Lower Shelter	projectile point	vein quartz	2
Lower Shelter	projectile point/preform	chalcedony	1
Lower Shelter	projectile point/preform	vein quartz	1
Lower Shelter	serrated arrow point	Knox chert	1
Lower Shelter	serrated flake tool	Knox chert	1
Lower Shelter	triangular arrowpoint	chalcedony	2
Lower Shelter	triangular arrowpoint	Knox chert	5
Lower Shelter	triangular arrowpoint	vein quartz	1
Lower Shelter	unifacial blade tool	Knox chert	1
Lower Shelter	unifacial flake tool	chalcedony	1
Lower Shelter	unifacial flake tool	Knox chert	1
Lower Shelter	unifacial flake tool	quartzite	1
Lower Shelter	unmodified cobble	alluvium	9
Upper Shelter	Appalachian stemmed knife	banded quartzite	1
Upper Shelter	bifacial thinning flake	chalcedony	2
Upper Shelter	bifacial thinning flake	Knox chert	2
Upper Shelter	bifacial thinning flake	quartzite	3
Upper Shelter	bifacial thinning flake	vein quartz	1

## CHURCH ROCKSHELTER NO. 2

Table 1 continued.

Provenience	Artifact Type	Raw Material	Qty
Upper Shelter	bipolar flake	crystal quartz	1
Upper Shelter	blade	vein quartz	1
Upper Shelter	core flake	quartzite	1
Upper Shelter	core flake	red jasper	1
Upper Shelter	core flake	vein quartz	8
Upper Shelter	flake fragment/shatter	vein quartz	4
Upper Shelter	Nolichucky arrow point	Uwharrie rhyolite	1
Upper Shelter	unifacial flake tool	greenstone	1
Total			398

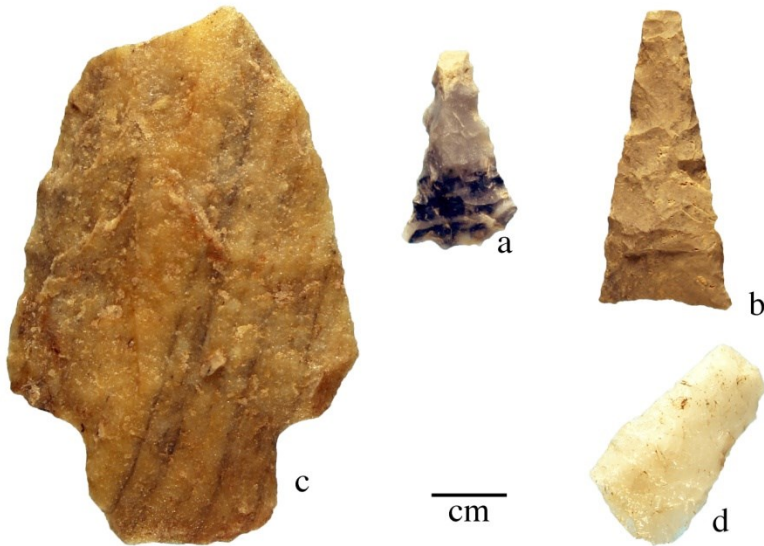


Figure 7. Chipped stone tools recovered by 2011 excavations at Church Rockshelter No. 2 (31WT39).

area, recovered the vast majority of these. Included are: Middle Archaic Morrow Mountain types (Figures 7d and 8d); Late/Terminal Archaic Lamoka (Figure 8a), Iddins (Figure 8b), and Appalachian Stemmed (Figures 7c, 8c, and 9j) types; Early Woodland (Nolichucky) types (Figures 7b, 9g–i, and 10); Late Woodland triangular types (Figures 9a–e

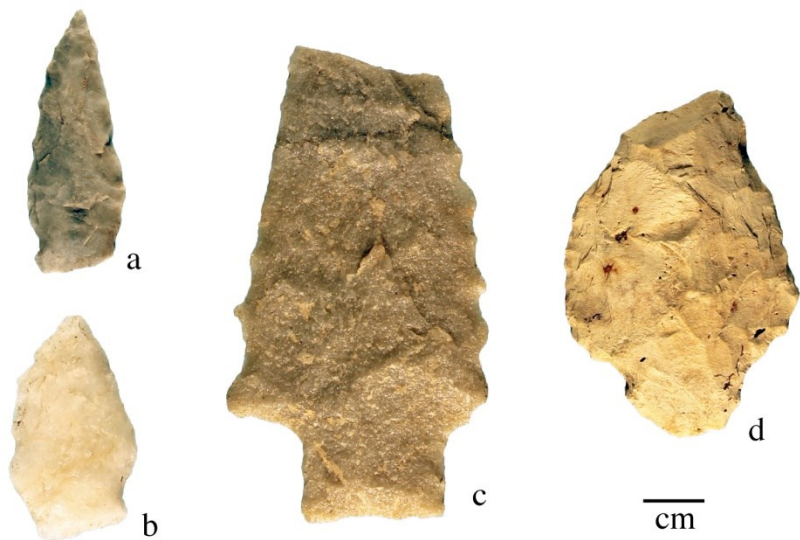


Figure 8. Archaic period chipped stone tools recovered by 1975 excavations at Church Rockshelter No. 2 (31WT39).

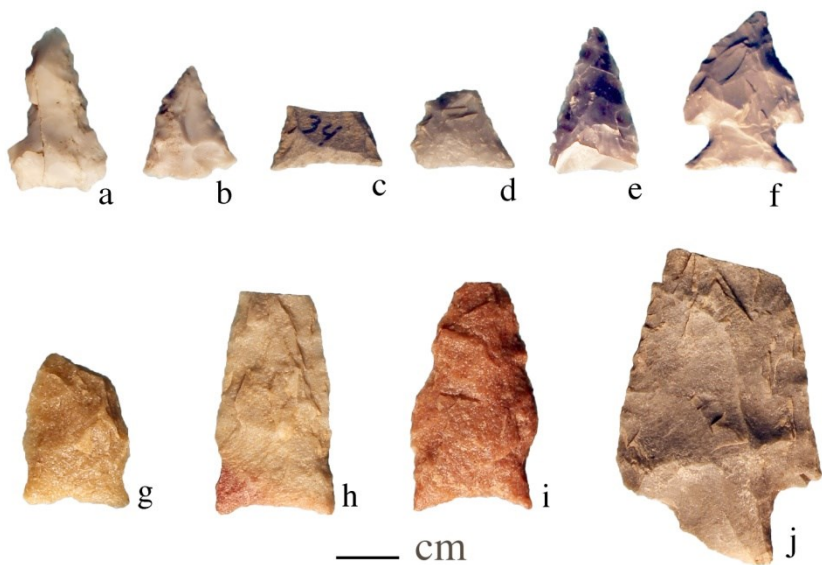


Figure 9. Chipped stone tools from the Larry Waters collection at Church Rockshelter No. 2 (31WT39).



## CHURCH ROCKSHELTER NO. 2

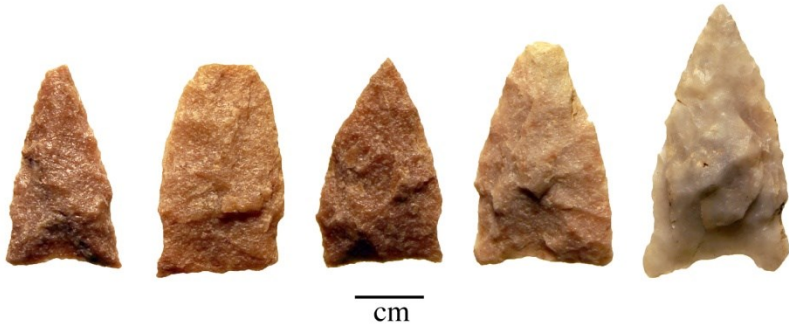


Figure 10. Nolichucky type projectile points recovered by 1975 excavations at Church Rockshelter No. 2 (31WT39).

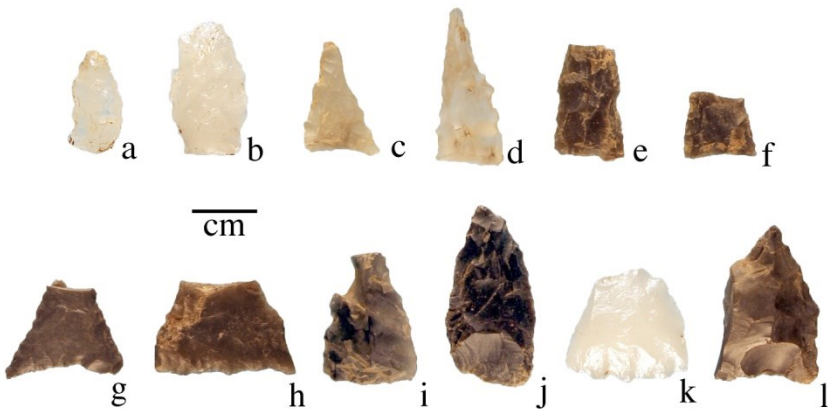


Figure 11. Woodland period chipped stone tools recovered by 1975 excavations at Church Rockshelter No. 2 (31WT39).

and 11c–l); and Late Woodland/Mississippian Jack’s Reef (Figure 9f) and Pisgah serrated (Figures 7a and 11a–b) points. Woodland period projectile points are especially numerous. Perhaps noteworthy is that no soapstone vessel fragments, no ground stone tools, and no formalized drills or scrapers were recovered from the site. The absence of vertical patterning with typological age indicates extreme disturbance to the deposits in the lower shelter area. It is also possible, if not likely, that all of the Archaic period tools had been found elsewhere, reused, and deposited by Woodland/Mississippian period visitors to the site.



*Ceramic Artifacts*

A ceramic pipe bowl fragment, the clay of which was tempered with crushed quartz, was recovered in 1975 from the lower shelter area. In addition, one angular block of fired, grit-tempered clay was recovered from the vandal spoil pile by Waters. The remaining ceramic artifacts are vessel fragments recovered by each of the three excavation events and both areas of the shelter. The 199 vessel fragments include 33 from the upper shelter area and 166 from the lower area. All of the specimens recovered from the upper shelter, for which surface treatments and tempering materials could be identified, are cord marked and tempered with crushed muscovite-biotite schist, and they probably represent a single Watts Bar series vessel (Figure 12). Many of these sherds were initially thought to be sand-tempered on the basis of unmagnified visual inspection and texture. Magnification, however, revealed sharply angular quartz, biotite, and muscovite (weathered to illite) particles. This pottery is readily assignable to the Early Woodland Watts Bar phase as defined by Lewis and Kneberg (1957) and expanded by Lafferty (1981) and Salo (1969).

The lower shelter yielded a more diverse assemblage. Tempering materials represented include grit, crushed muscovite-biotite schist, crushed quartz, crushed limestone, crushed soapstone, and indeterminate or mixed crushed rock (schist/quartz/gneiss) (Table 2). Most sherds are crushed muscovite-biotite schist tempered and cord marked or plain, and they also are assignable to the Watts Bar series (Figure 13). Three limestone tempered, net-impressed sherds recovered are assignable to either an unnamed Middle Woodland phase (see Boyd 1986 and Whyte 2011) or the Late Woodland Radford series. Late Woodland pottery from the site is net impressed and tempered with crushed quartz or grit (Figure 14). One vessel rim (Figure 14a) is thickened and punctated. This pottery is considered to represent upper Watauga and New River valley varieties of the Late Woodland Dan River series that exhibit influence from the Mississippian Pisgah phase found to the west and southwest (Mathis and Moore 1984; Whyte 2003).

The rectilinear-stamped pottery recovered from the lower shelter area (Figure 15) is tempered primarily with crushed quartz and to a lesser extent alluvial grit. The exteriors exhibit broad, angled, rectilinear stamping assignable to Dickens' (1976) Design B category for the Pisgah series. Sherd interiors are smoothed. Two rim fragments (Figure 15a–b) are from bowl forms. One of these (Figure 15a) is thickened and straight with a channeled lip, while the other (Figure 15b) is not thickened, is

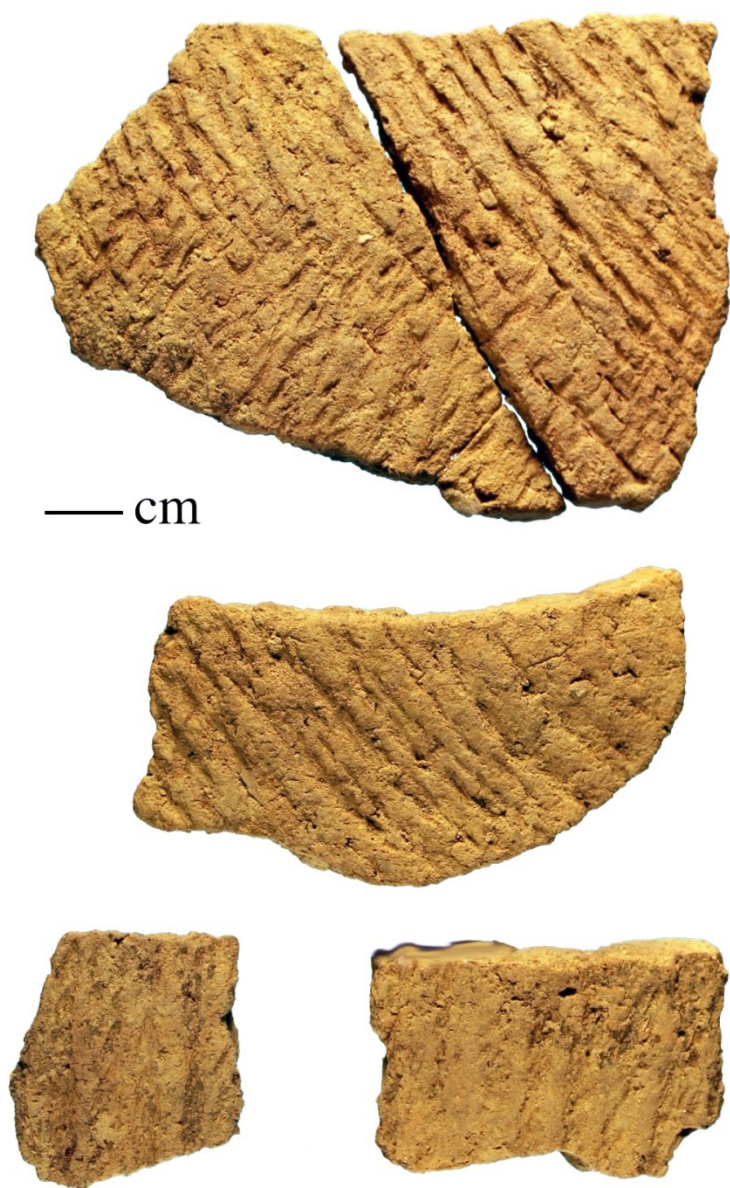


Figure 12. Watts Bar series vessel sherds from the upper shelter area, Church Rockshelter No. 2 (31WT39).

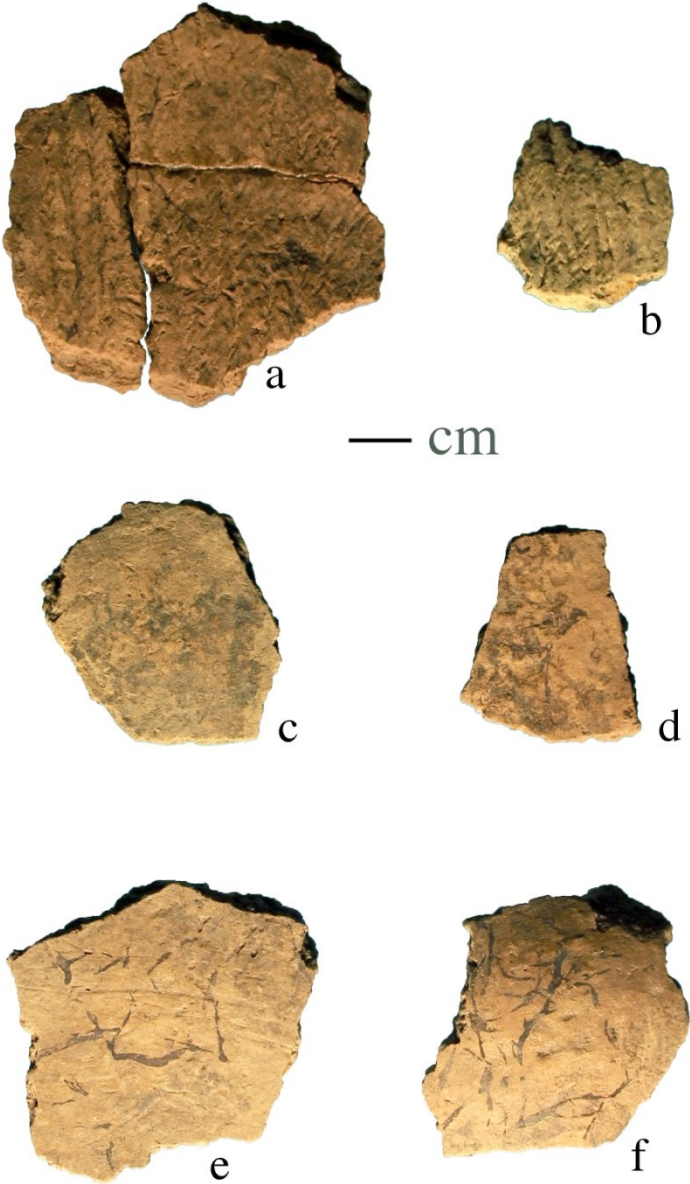


Figure 13. Watts Bar cord marked (a–b) and plain vessel sherds recovered by Waters from the lower shelter area, Church Rockshelter No. 2 (31WT39).



Figure 14. Late Woodland period net impressed vessel sherds recovered by Waters from the lower shelter area, Church Rockshelter No. 2 (31WT39).

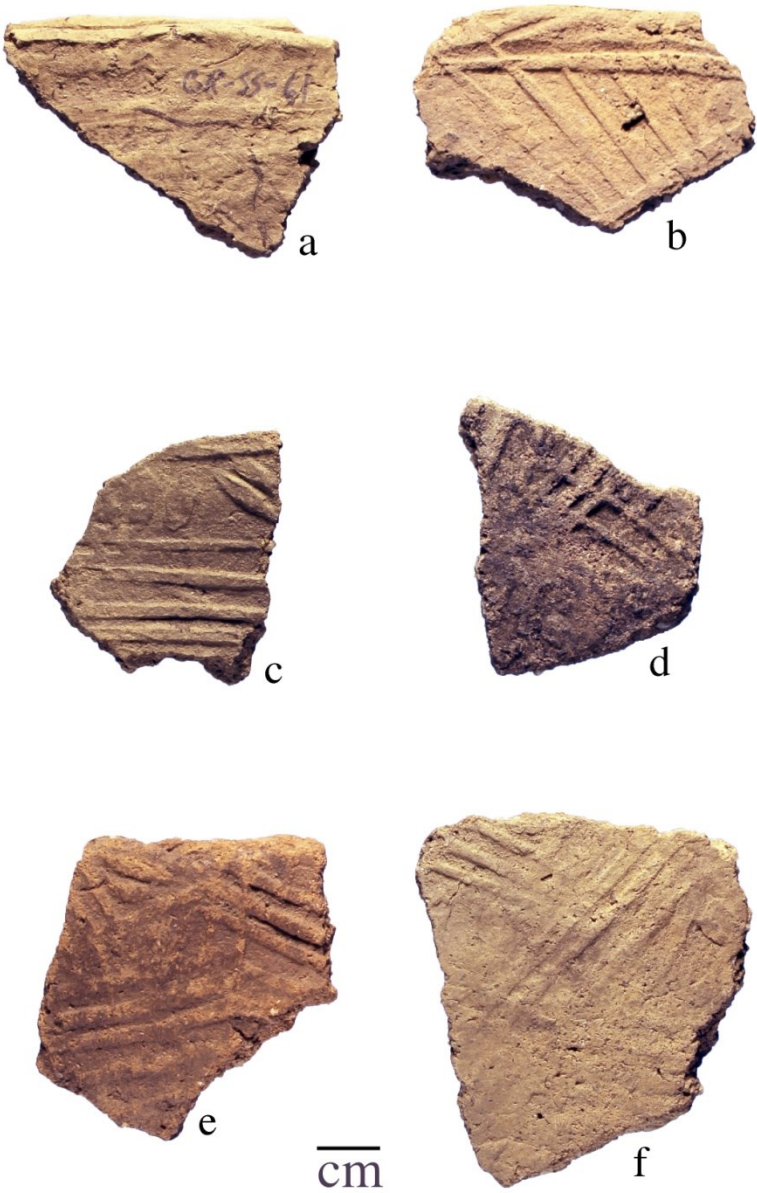


Figure 15. Pisgah phase rectilinear stamped vessel sherds recovered by Waters from the lower shelter area, Church Rockshelter No. 2 (31WT39).

## CHURCH ROCKSHELTER NO. 2

Table 2. Prehistoric Pottery Attribute Associations between Upper and Lower Shelter Locations at Church Rockshelter No. 2 (31WT39).

Provenience	Temper	Exterior Surface	Qty
Lower Shelter	biotite/muscovite	cord	32
Lower Shelter	biotite/muscovite	fabric	1
Lower Shelter	biotite/muscovite	indeterminate	13
Lower Shelter	biotite/muscovite	plain	26
Lower Shelter	grit	broad rectilinear	1
Lower Shelter	grit	burnished	1
Lower Shelter	grit	indeterminate	6
Lower Shelter	grit	net	3
Lower Shelter	grit	plain	7
Lower Shelter	grit	rectilinear	7
Lower Shelter	limestone	cord	1
Lower Shelter	limestone	net	3
Lower Shelter	mica schist	rectilinear	1
Lower Shelter	quartz	broad rectilinear	16
Lower Shelter	quartz	indeterminate	3
Lower Shelter	quartz	net	19
Lower Shelter	quartz	plain	2
Lower Shelter	quartz	rectilinear	9
Lower Shelter	sand	plain	1
Lower Shelter	schist/quartz/gneiss	indeterminate	1
Lower Shelter	schist/quartz/gneiss	net	3
Lower Shelter	schist/quartz/gneiss	plain	6
Lower Shelter	soapstone	fabric	1
Lower Shelter	soapstone	plain	2
Upper Shelter	biotite/muscovite	cord	25
Upper Shelter	biotite/muscovite	indeterminate	8
Total			198

straight, and has a flattened lip. Constricted vessel neck fragments recovered (e.g., Figure 15c) indicate the presence of jar forms as well. The rectilinear-stamped pottery from this site is most conveniently assignable to the Pisgah series as named by Holden (1966) and defined by Dickens (1976). This suggests either visitation by or exchange with neighboring Mississippian groups.



*Archaeofaunal Remains*

Fragments of bone, teeth, and shells were recovered by each of the excavations. These include pieces of terrestrial gastropod shell that likely represent thanatocoenosis, and bones of amphibians, reptiles, birds, and mammals that may represent human food or the deposits of nonhuman carnivorous denizens. Specifically identifiable bone specimens include a trunk vertebra of a Hellbender (*Cryptobranchus alleganiensis*), two vertebrae of a toad (*Bufo* sp.), an Eastern Box Turtle carapace fragment, a proximal phalanx of a Wild Turkey (*Meleagris gallopavo*), a distal metatarsal of a rabbit (*Sylvilagus* sp.), and nine specimens identified as White-tailed Deer (*Odocoileus virginianus*). The latter include all portions of the anatomy. Most of the specimens preserved on the site had been calcined or charred. None shows evidence of artificial modification. Only the burnt specimens can be considered as anthropogenic with any degree of certainty.

*Archaeobotanical Remains*

No plant remains were recovered by the Waters excavation of the vandal spoil pile. Ayers' 1975 excavations in the lower shelter area resulted in three wood charcoal samples recovered by hand for potential radiocarbon dating. The 2011 fieldwork, employing 1/8-inch wet-screening, yielded numerous specimens including carbonized nutshell and seeds but primarily carbonized wood from both lower and upper shelter contexts. These materials have been weighed but not analyzed.

**Site Age**

Non-metric indicators of component age at this site include temporally diagnostic stone tools and ceramic artifacts. Use of the former must be tempered with some caution, however, because of the possibility of scavenging, re-use, and later deposition of earlier stone artifacts. This behavior is archaeologically and ethnographically well documented (Amick 2007; Sassaman 1993). It is easy to imagine that the discarded large stone blades of the Middle and Late Archaic periods found by later humans in areas geologically deficient in quality lithic materials (northwestern North Carolina) would have been valued resources for the making of new tools. Indeed, only seven artifacts of definitively Archaic period types (Morrow Mountain, Appalachian Stemmed/Savannah River, Iddins, and Lamoka) were recovered, and not from deeper places in the profile. In the upper shelter area where there was no evidence of prior human disturbance, an Appalachian

## CHURCH ROCKSHELTER NO. 2

Stemmed/Savannah River knife was found immediately above the remains of an Early Woodland Watts Bar series ceramic vessel.

The two clearly indicated temporal/cultural components represented at CR2 are Early Woodland and Late Woodland. The Early Woodland component is indicated by Nolichucky type arrowpoints and Watts Bar cord-marked and plain-surfaced pottery. While Purrington (1975; 1983) assigned all small shallow-side-notched projectile points to the Middle Woodland Pigeon type defined by Keel (1976), they are not associated with Pigeon ceramics in this part of the state, and the examples recovered from CR2 (Figures 7b, 9g–i, and 10) are morphologically indistinguishable from Nolichucky points recovered from the Camp Creek site (Lewis and Kneberg 1957) located 40 km to the southwest and defined by Kneberg (1957). All but two (one chalcedony and one Uwharrie rhyolite) are made of Erwin formation quartzite, the nearest geologic source of which is approximately 20 km downstream and to the west. That most of these are rose colored, whereas the natural color of the iron-rich material is light beige or yellow, suggests the possibility that they or the parent materials were intentionally thermally altered, presumably to impart color change. The one made of Uwharrie rhyolite, the geologic source of which is found well east of the distribution of the point type, was likely fashioned from an earlier artifact that had been found and recycled. The morphologies of these points and the discovery of a carbonized arrow shaft stratigraphically beneath them at the Camp Creek site (Lewis and Kneberg 1957) confirm that they are arrowpoints.

Considering the degree of contextual disturbance in the lower shelter area where all but one of the Nolichucky points were found, it is impossible to confirm a ceramic type association for them at this site. However, a likely association is the Watts Bar cord-marked and plain-surfaced pottery found in both parts of the shelter. This association is well established at Camp Creek (Lewis and Kneberg 1957) and sites of the Phipps Bend project (Lafferty 1981), both in northeastern Tennessee. These ceramics and projectile point types probably date between 600 and 400 BC. The Watts Bar pottery at this site was probably locally made or made where clays and sands could be derived from sources along the Watauga and Nolichucky Rivers that erode the Muscovite-biotite gneiss of the Alligator Back formation. All sherds of this type at this site contain either finely or coarsely crushed muscovite-biotite schist.

A Late Woodland period component also is in evidence by the numerous small triangular arrowpoints and net-impressed, quartz or grit-tempered pottery found in the lower shelter area. Similar materials are



abundant at the several Late Woodland period villages and temporary residences explored along the Watauga River above and below the rockshelter (Purrington 1975, 1983; Whyte 2003). The net-impressed, quartz-tempered pottery generally exhibits coarsely scraped interiors and fits well within the Dan River series centered in its distribution on the northern Piedmont of North Carolina (Gardner 1980).

Rectilinear-stamped pottery and Pisgah arrowpoints found in the lower shelter area tentatively indicate a Mississippian Pisgah phase component. Although Purrington (1983) and others identify several sites along the Watauga River as Pisgah phase villages, Whyte (2003) argues that these are predominantly Late Woodland villages on the bases of village structure (circular houses and no mounds), subsistence (hunting/gathering and maize horticulture), and ceramic typological confusion. The Pisgah ceramics found in CR2, possibly representing three vessels, may have accumulated by means of domestic or ritual activities of Pisgah phase visitors or by non-Mississippian (Woodland) seasonal residents who had obtained the vessels through exchange.

### **Site Function, Seasonality, and Anthropogeography**

That the site was used seasonally and for special purposes other than residence is likely. It contained no evidence of architecture and very little evidence of cooking facilities. Plant and animal remains were not recovered in sufficient abundance or condition to be used in identifying seasons of site use. However, future study of micro-botanical remains recovered by wet screening in 2011 may be fruitful. Whyte (2003) argues that the upper Watauga River valley was not occupied on a year-round basis until the Late Woodland or Medieval Warm period (AD 900–1300). The Ward site (31WT22), for example, a palisaded village located 5 km downstream, was occupied between AD 1000 and 1200 (Whyte 2003). These residences appear to have been abandoned by AD 1400 as a result of lower average annual temperatures of the Little Ice Age (Whyte 2003). Later Dan River series, Pisgah series, and Burke series ceramics found in minor amounts in rockshelters such as CR1 (31WT155) and CR2 (31WT39) and on open sites indicate continued but perhaps seasonal use of the upper Watauga valley after AD 1400.

This means that ceramics, projectile points, and other items dating prior to and after the Late Woodland period were likely introduced from other places. The majority of stone artifacts that predate the Late Woodland are made of quartzite, metasandstone, flint, and chalcedony from the Ridge-and-Valley province located approximately 20 km

downstream in eastern Tennessee. Ceramic type affinities for the Early Woodland period also indicate a Ridge-and-Valley source. This indicates that seasonal visitors prior to the Late Woodland period migrated upriver from the west. Further evidence of this seasonal migration source and direction is an upstream decreasing frequency of limestone-tempered ceramics in rockshelters (Whyte 2011).

Permanent residences of the Medieval Warm (AD 900–1300) period, when growing seasons were sufficient for maize production, are common along the Watauga River above and below the site. While these residences were in use, the rockshelter may have served as a location for special functions that required small group or individual isolation (see Claassen 2011; Claassen and Compton 2011; Whyte 2007). Materials such as the Pisgah phase ceramics and arrowpoints deposited during the subsequent Little Ice Age (AD 1400 to extirpation) may represent seasonal or otherwise transient visits to the upper Watauga valley (Whyte 2003).

Inferring the precise reasons for human activity in CR2 on the basis of materials recovered and the physical structure of the site is problematic. Use of the term “shelter” in defining the site carelessly assumes that the site functioned as a temporary place for human habitation, perhaps during inclement weather, and that all of the accumulated materials represent the suite of activities expected for a temporary seasonal residence. Indeed, all of the animal and plant remains, stone tools, stone debitage, and ceramic artifacts recovered can accommodate a temporary residence scenario that is typically used to explain most evidence found in rockshelters of the region. However, recent studies by Claassen and Compton (2011) and Whyte (2005, 2007) have introduced the possibility that rockshelters of the region were regarded much like caves and frequently hosted ritual activities such as human burial and the building of shrines. Many of artifacts recovered from CR2, and especially the pottery, may represent offerings. Broken projectile points, unmodified debitage, and small bifacial tool retouch flakes in the deposits evince weaponry maintenance. In all probability the site was used for both profane and sacred purposes at various times in the late prehistoric period.

One of many questions raised by this investigation involves the disparity in periods of human use between Church Rockshelters 1 (31WT155) and 2 (31WT39). The two are nearly in view of one another and nearly identical in morphology and proximity to the Watauga River. The only obvious visible differences are that Church Rockshelter 1

(CR1) contained a Late Woodland human burial and is south facing while Church Rockshelter 2 (CR2) is east-southeast facing. One would expect them to have similar contents, yet the two primary cultural components (Early Woodland and Mississippian) represented at the latter are barely in evidence at the former. Since there may be many natural and cultural variables that could be invoked to explain this disparity, a multivariate study of rockshelter contents and contexts in the upper Watauga River valley is recommended.

### Notes

*Acknowledgments.* I will forever be indebted to the late Charles Church of Sugar Grove, North Carolina, and I dedicate this work in his memory. I also want to acknowledge my students—Derek Johnson, Kimberly Honeycutt, Jessica Weaver, Beau Lockard, Katrina Kremer, Chandra Wilson, Nels Theilgard, Drew Pflaumer, Victoria Pamell, Nathanael Fasaaen, Clifton Hicks, James Guernsey, and Jaqueline Clubine—for uncommon effort. Mr. Anthony Love of the Appalachian State University Department of Geology generously identified aplastic materials in pottery sherds from the site. This research was funded by the Appalachian State University Department of Anthropology and College of Arts and Sciences.

*Collections.* Materials recovered from Church Shelter No. 2 by Mr. Larry Waters and by Appalachian State University archaeologists, and all documents pertaining to these excavations, are maintained by Appalachian State University, Boone, North Carolina.

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# **INVESTIGATION OF A NINETEENTH-CENTURY URBAN FARMSTEAD IN RALEIGH, NORTH CAROLINA**

**by**

**Patrick H. Garrow**

The urban lot that is the subject of this paper was part of a larger study property investigated by TRC Garrow Associates, Inc., for the Wake County Public School System in 1999 and 2000 (Garrow and Holland 2003). The overall study area encompassed an entire four-acre block designated for construction of the Moore Square Museums Magnet School. The study block is located four blocks southeast of the State Capitol building in Raleigh, North Carolina.

The lot discussed in this paper was one of five lots targeted for data recovery excavations based on survey, testing, and historical research. The project research design stressed the identification and excavation of major archaeological features that contained large artifact collections sufficient to support socioeconomics and ethnicity, household material culture, and consumer pattern studies. The research design also stressed the issue of the transformation of a property from nonurban to urban use under a larger land-use history problem domain (Garrow and Holland 2003:4–7).

The methods used to investigate the study lots were dictated by the requirements of the project research design. Each lot, or at least major portions of each lot, was machine stripped and the archaeological features recorded and excavated. The archaeological research was supported by extensive historical archival research that was done to construct as much information as possible about the lot residents through time.

Excavation of the five lots targeted during this project failed to yield the large, artifact-rich features that were needed to address the social-cultural questions posed for this project. However, the lot that is the subject of this paper contained hundreds of postmolds and yielded important information on an urban farmstead (Stewart-Abernathy 1986) that had stood there during the initial settlement of the block.

Table 1. Data about the Charles Johnson Household from 1840 to 1850.

Year	White Male	White Female	Slaves	Free Black	Property Value
1839	-	-	-	1	-
1840 Census	4	3	4	-	-
1840 Tax	-	-	3	-	\$2,000
1841	-	-	3	-	\$1,500
1842	-	-	4	-	\$1,500
1843	-	-	4	-	\$4,000
1844	-	-	2	-	\$4,000
1845	-	-	3	-	\$3,500
1846	-	-	3	-	\$2,000
1850	1	1	2	1	\$3,000

**Historical Context of 317 S. Person Street**

The earliest residence constructed at 317 S. Person Street was apparently built by Charles Johnson. Johnson owned the lot by 1839, and the residence was probably built around that time (Wake County Tax Records 1839). Two persons in Johnson’s household were listed as being employed in “manufacture and trade” in the 1840 census, and Charles Johnson was listed as a 62-year old carpenter in the 1850 census (U.S. Bureau of the Census 1840, 1850).

Data on Johnson’s household and his property values are shown in Table 1. There were four white males and three white females in his household in 1840, of which two were aged 10 to 15, two were 15 to 20, one was 20 to 30, and two were 40 to 50. These individuals probably were Charles Johnson, his wife Margaret, and their five children. Johnson’s property was worth from a low of \$1,500 to a high of \$4,000 from 1840 to 1850 (Garrow and Holland 2003:17, 19; U.S. Bureau of the Census 1840, 1850; Wake County Tax Records 1839–1850).

Johnson owned two to four slaves from 1840 to 1850. The four slaves listed in the 1840 census included a male between 10 and 24, a second male between 36 and 55, a female between 10 and 24, and a second female between 36 and 55. The two slaves he owned in 1850 were 15 and 20 year old males. Tax records available for 1848, 1851, 1853, and 1854 do not list Johnson as a slave owner. It is assumed that the slaves owned by Johnson lived at 317 S. Person Street, since there is no information to indicate he owned property elsewhere in Raleigh (Garrow and Holland 2003:17, 19; U.S. Bureau of the Census 1840, 1850; Wake County Tax Records 1839–1850).



## A NINETEENTH-CENTURY URBAN FARMSTEAD

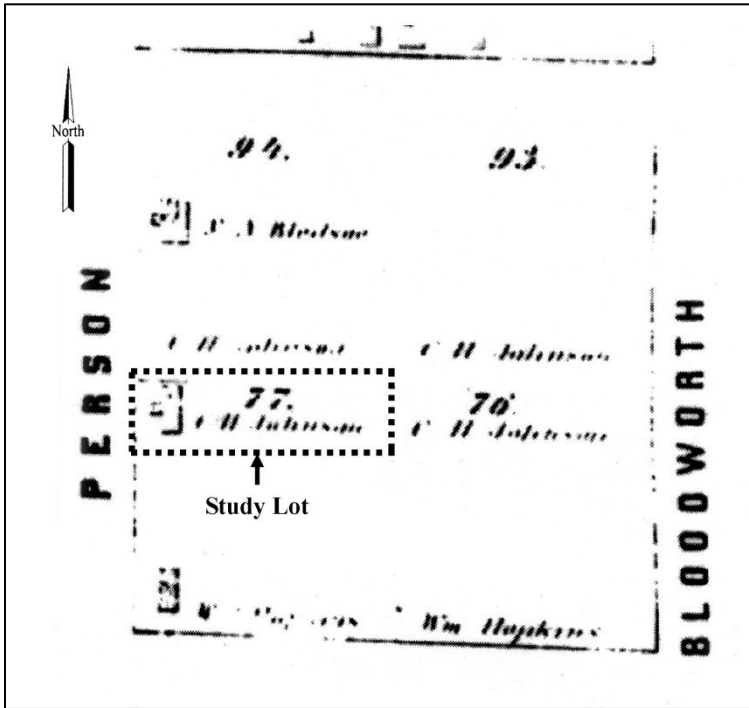


Figure 1. Sketch of Study Area showing houses on S. Person Street in 1847 (Johnson 1847).

Free persons of color were listed as residents of the Johnson household in 1839 and 1850. Nothing is known about the single free person of color who resided there in 1839, but the one who lived in his household in 1850 was a 13 year old black female named Eliza Mainord. It is likely that both individuals were under 21 years old and had been apprenticed to Charles Johnson. Apprenticeship of the children of free persons of color to white families to serve as house servants or farm laborers was apparently a common practice in North Carolina at that time (Garrow 1975).

Available historical maps indicate that the structure constructed by Charles Johnson was a relatively modest two-story building. It was hardly large enough to house the seven whites and four black slaves that lived at 317 S. Person in 1840. Figures 1–4 illustrate historical maps that include the study lot in 1847, 1872, 1881, and 1896. No outbuildings are shown on the 1847 or 1881 maps, but both appear to have been limited to primary residences. The 1872 image is from Dries Bird's Eye View of Raleigh, and that image does show both primary structures and at least

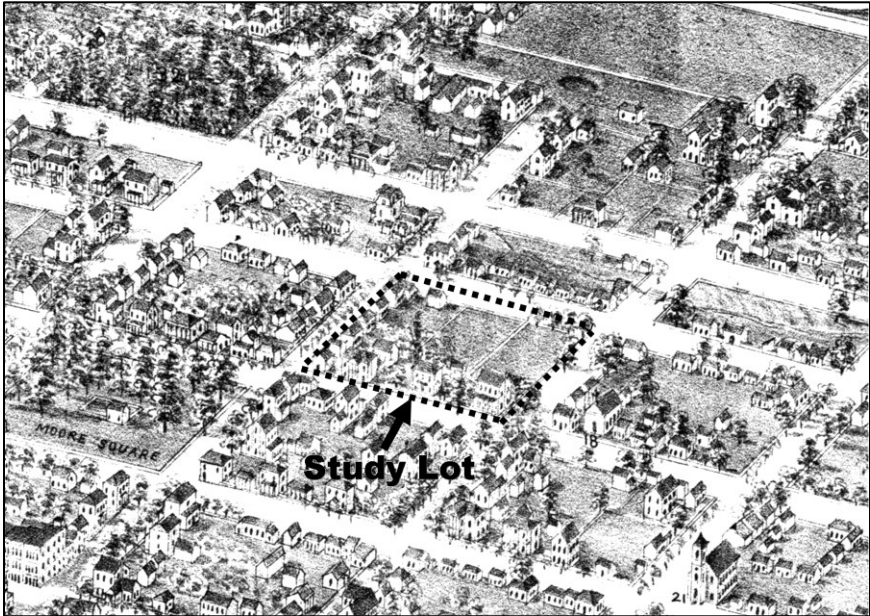


Figure 2. Bird's Eye View of Raleigh showing the Study Block and Lot (Dries 1872).

some outbuildings. The only outbuilding shown for 317 S. Person in 1872 is a rather small building located in the near back yard of the residence and oriented in the same manner as the residence.

It is not known when Charles Johnson left 317 S. Person Street, but he used the property to secure a debt to Samuel H. Young in 1856, and he does not appear in the 1860 Wake County census (U.S. Bureau of the Census 1860; Wake County Record of Deeds [WCRD] 1956:DB 21:359).

The estate of Thomas Jenkins apparently acquired 317 S. Person Street in 1866 or a short time later to settle debts owed to Jenkins by Charles Johnson. The house may have been occupied by Mrs. M. L. Jenkins, widow of Thomas Jenkins, by the late 1860s. She and her son Thomas G. Jenkins definitely occupied the house by 1875. Thomas G. Jenkins operated what had been his father's carriage factory and lived on the study property until 1883 (Raleigh City Directory 1975–1876, 1883; Wake County Estate Records 1883).

Sidney D. Harrison and his wife resided at 317 S. Person Street by 1886 and operated a boardinghouse at 327 S. Person Street. Harrison was listed in city directories as a produce dealer and truck farmer. The

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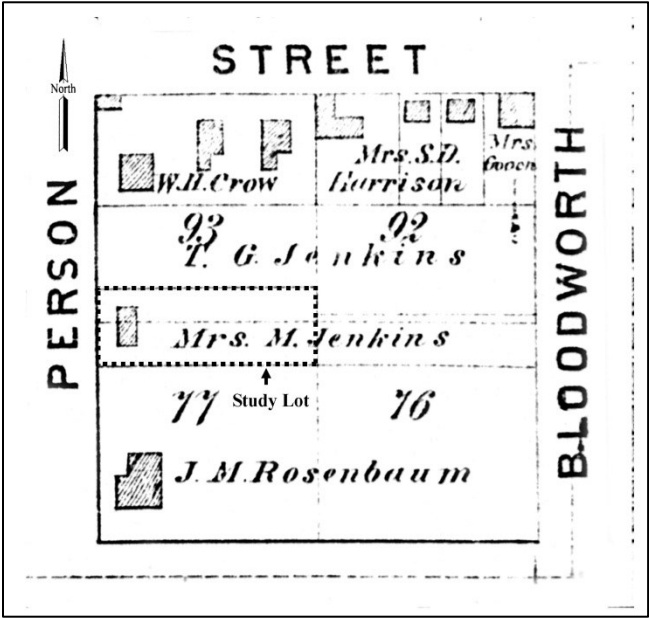


Figure 3. Map Showing Structures on the Study Block in 1881 (Shaffer 1881).

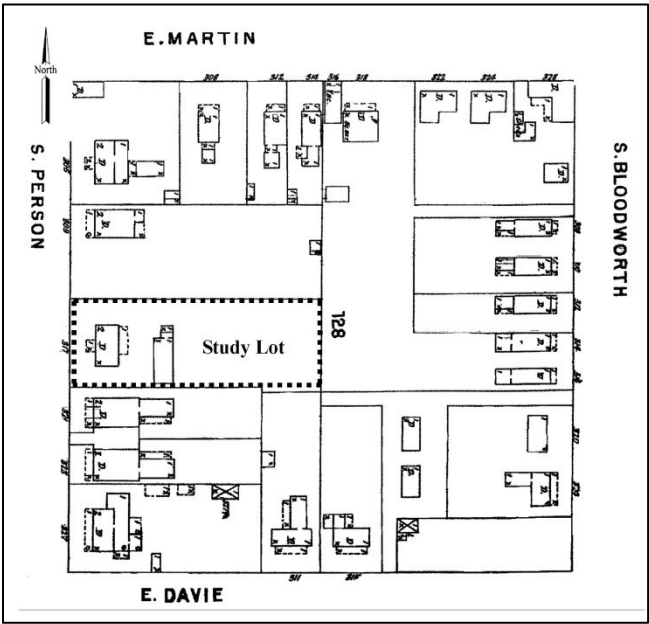


Figure 4. Sanburn Insurance Map of the Study Block in 1896 (Sanburn Insurance Company 1896).

1887 City Directory listed four African-Americans at 317 S. Person in addition to the Harrisons. These included two servants, a house maid, and a carpenter. The carpenter apparently resided there, while the others may have resided elsewhere. W. H. Harrison, who was white, also resided there (Raleigh City Directory 1883, 1886, 1887, 1888).

The Harrisons apparently never owned the property, as members of the Jenkins family sold it to W. A. Myatt in 1890. The property went through a series of owners in the 1890s, but no information on the site's residents during this period could be found (WCRD 1890: DB 112:422; 1891:DB 113:709; 1896 140:38). The residence at 317 S. Person was torn down and replaced with a new structure by 1903 (Sanburn Insurance Company 1903).

### **Results of the Archaeological Investigations**

The field investigations at 317 S. Person Street involved the machine excavation of approximately the rear half of the lot to subsoil to expose archaeological features. Excavation of the block was constrained by a very large hardwood tree located in approximately the center of the lot, and an underground tank located between the tree and Person Street. A thin midden with artifacts that dated to the mid-nineteenth century was found on this lot during testing, and the lot was included among the mitigation priorities on the expectation of finding intact archaeological features.

Machine stripping revealed a large number of features across the lot, but no large features such as privies, wells, or cisterns. The exposed features were primarily postmolds, which outlined a series of structures and fences.

Clear lines of fence posts were found on the north, east, and south sides of the lot, and these correspond to the lot boundaries as projected from historical maps. One structure correlated with a residence known from historic maps on the residential lot immediately south of 317 S. Person. A structure within 317 S. Person may have corresponded in part with a structure to the rear of the residence shown on the 1872 Bird's Eye View and the 1896 Sanburn Insurance map, but it was probably located too far to the rear of the main residence to match up with that structure.

Two structures (Structures 2 and 5) were represented in the ground by clusters of relatively small, round postmolds, and most of those were not excavated in the interest of saving time in the field. Structure 1

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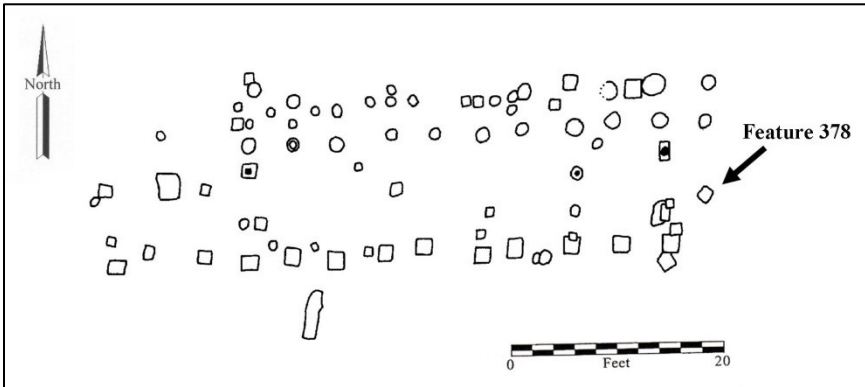


Figure 5. Map of Structure 1.



Figure 6. View of Structure 1 after excavation. Looking west towards downtown Raleigh.

(Figures 5 and 6), on the other hand, was made up of relatively large square and circular postmolds that were completely excavated. Each postmold in Structure 1 was first excavated in half section with the excavated dirt screened through quarter-inch mesh hardware cloth. Once the postmold was excavated in section, the dirt from the second section was excavated and retained for flotation. This excavation approach allowed the postmolds to be excavated fairly rapidly, while insuring systematic recovery of small objects missed in screening.

### Structure 1

The postmolds associated with Structure 1 tended to be fairly shallow and flat-bottomed. The artifact collection recovered from the postmolds included 232.6 grams of animal bone (n=1,056), 12.2 grams of animal teeth (n=27), 71.7 grams (n=48) of oyster shells, 3.9 grams (n=3) of clam shells, and 47.9 grams (n=287) of unidentifiable shell. The faunal material tended to be too small and fragmentary for more than rudimentary identification, and little could be done with that collection. The artifact collection from the postmolds that could be placed within artifact pattern summaries (Garrow 1982; South 1977) included 1,805 items. Other items recovered included 1,821.9 grams (n=533) of brick fragments, 27.3 grams (n=31) of mortar, 2.7 grams of plaster (n=13), 22 pieces of roofing slate, 848.85 grams of coal, 816.85 grams of cinders, and 27.05 grams of charcoal.

The Structure 1 collection included 362 fragments of window glass that was measured for window glass dating. Various window glass dating schemes have been proposed for the West Coast (Roenke 1976:166), Southern tenant houses (Orser et al. 1987:343), a Memphis railroad terminal (Garrow et al. 1998:48), and a large number of tightly dated sites in Texas (Jurney and Moir (1987:77–78). The Texas dates were used in the current study because of the size of the sample they were based upon and the tight dating control the investigators had over their excavated sites. Application of that regression formula to the Structure 1 window glass yielded a date of 1836.5, which is believed to be an accurate approximate date for the construction of Structure 1. That date was accepted as the construction date based on the assumption that the window glass in the postmolds found their way into those postmolds after the building was demolished and the building supports were removed. It also is assumed that there was little window replacement over the life of the building.

The demolition date for Structure 1 could not be as accurately determined as the construction date. Structure 1 was not shown on the Dries 1872 Bird's Eye View of Raleigh, despite the fact that it shows outbuildings elsewhere on the block, and even shows one in a different location at 317 S. Person Street. Structure 1 also does not appear on later maps, supporting the interpretation it was torn down before 1872. Further, the artifacts recovered from the Structure 1 postmolds, with a few exceptions, appear to predate 1872. The few artifacts that date after that time could easily represent items pressed into the postmolds well after demolition of the structure.

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Structure 1 measured slightly more than 16 ft wide by approximately 57 ft long (see Figure 6). The main structure appears to have been divided into three rooms that were 12, 16, and 8 ft long, and had a narrow room on the west that measured approximately 8 ft long by 5 ft wide. The narrow room on the west end was somewhat irregular in shape, and may have been a porch. Three postmolds on the east end may have defined a second porch. There was no evidence that the building had chimneys or fireplaces, despite the fact that an intact shallow midden was observed over the postmold pattern during machine stripping and the building site appears to have been minimally disturbed. The small brick fragments recovered from Structure 1 were scattered throughout the Structure 1 features, and probably derived from brick piers that had supported the building in at least some of the postmolds.

The lack of evidence of chimneys does not mean that Structure 1 served a nondomestic function. Stoves were relatively common by the 1830s and 1840s, and 102 different types of cookstoves were patented between 1835 and 1839 alone. Coal fragments and cinders were recovered from virtually all of the Structure 1 postmolds, and coal was cheaper than wood throughout much of the eastern United States during the nineteenth century (Brewer 2000:63–64). The railroad reached Raleigh by 1840, and a cheap supply of coal was probably available by at least then. A stove vented by a metal or ceramic pipe would not have left archaeological traces if the stove and pipe had been salvaged.

The artifact assemblage recovered from the Structure 1 postmolds appears to have been from a domestic occupation. The artifact sizes were quite small and it was not possible to do detailed artifact analyses. Kitchen artifacts accounted for 40.3 percent ( $n=728$ ) of the total artifact pattern collection, while Architecture items amounted to 52.4 percent ( $n=946$ ). The collection also included domestic artifacts such as Clothing ( $n=16$ ), Personal items ( $n=5$ ), and a single ceramic pipe bowl fragment. Five toys were recovered from the postmolds; these include three doll parts, a toy porcelain dish, and a single marble.

Perhaps the most remarkable artifacts found within Structure 1 were from Feature 378 (see Figures 5 and 7), a square postmold located at the east end of Structure 1. That feature yielded a total of 31 gastroliths or gizzard stones. The gastroliths included 20 made of white bodied ceramics with the glaze removed, three of indeterminate ceramics, seven of indeterminate glass, and one of limestone. All of the gastroliths were white. Twenty-eight of the 31 gastroliths were recovered through flotation of the west section, while the other three were recovered in the



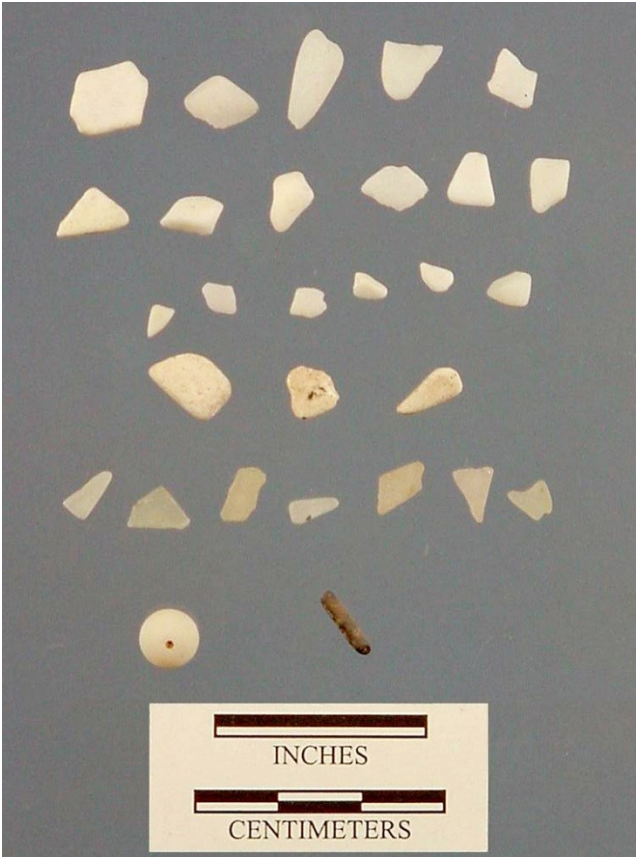


Figure 7. Artifacts from Feature 378, Structure 1.

field. The total number recovered from Feature 378 is even more impressive when it is considered that only four other gastroliths were found on the entire Moore Square project despite systematic flotation of half the feature fill from Structure 1. The only glass bead recovered from Structure 1 was also found in Feature 378, as was one of the two pencil leads from the structure (Figure 7). The bead was white and thus matched the gastroliths in color.

Wilkie (2000:192–193) recovered 15 gastroliths that appear to be very similar to the Structure 1 gastroliths from contexts at Oakley Plantation in Louisiana. She hypothesized that the gastroliths were gathered by African American slaves because they possessed magical value, and that they were probably kept in charm bags. She pointed out

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the importance of chickens in certain types of witchcraft, and thought it was important that six of the stones she recovered were blue.

It is clear that someone went to a great deal of trouble to gather 31 white gastroliths at 317 S. Person Street and bury them with the white bead and pencil lead in association with Structure 1. The gastroliths, bead, and pencil lead probably were components of a charm bag, and the discovery of that grouping of artifacts in association with Structure 1 underpins the interpretation that the building was likely built for and used by African Americans.

It is conceivable that Structure 1 served a function unrelated to African American slaves. Charles Carpenter, the first occupant of the site and the probable builder of Structure 1, was a carpenter and may have used the building as a shop or a storage building. This seems unlikely, however, as the artifacts found around the structure were domestic in nature, and no artifacts related to carpentry were identified from that area. Use of the building for storage probably would not have left an artifact signature, but it still would be necessary to explain the domestic midden around the building if it indeed was used for storage. Use of the building for a shop or as a storage building certainly would not explain the presence of the hypothesized charm bag from Feature 378.

An additional possible explanation for Structure 1 is that it was used as a domestic structure but was not occupied by slaves. This interpretation cannot be absolutely disproven, but the only persons known to have occupied the lot besides Johnson, Johnson's family, and his slaves during the first decade or so of occupation of the site were single free persons of color in 1839 and 1850. The free person of color who lived there in 1850 is known to have been a 13 year old girl, and it is likely that the individual who lived there in 1839 was also a minor. Structure 1 was too large to have been occupied by a single individual, and it is unlikely that minors would have been allowed to live there alone.

### Structure 2

Structure 2 was identified near the southern boundary of 317 S. Person Street (Figure 8). That structure consisted of two bays defined primarily by small, round postmolds. None of the postmolds were excavated in the interest of time. The bays that defined this structure were approximately 12 ft wide by 18 ft long, and were oriented north-south. The bays were approximately 5 ft apart. Clusters of very small

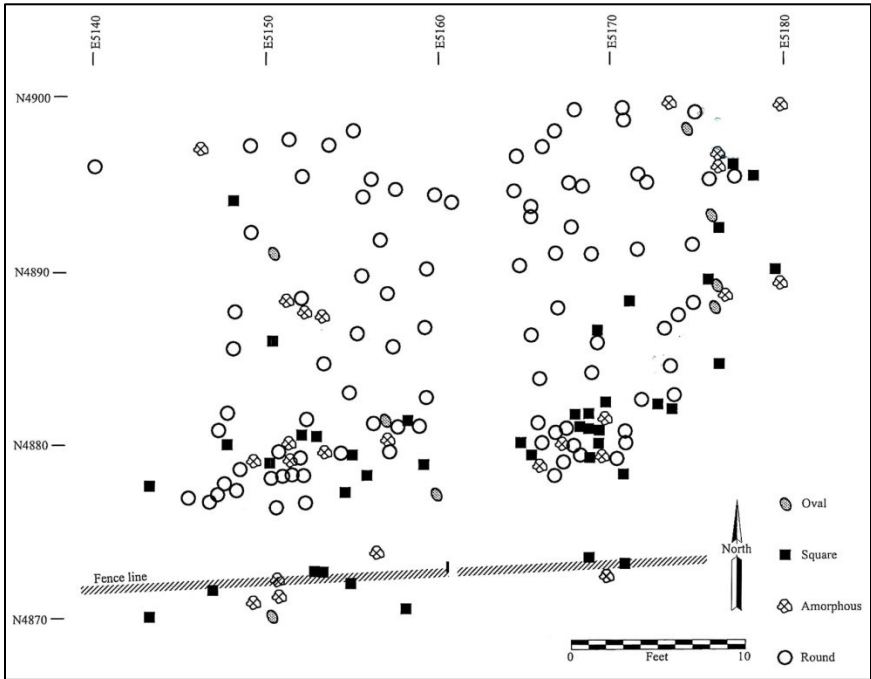


Figure 8. Map of Structure 2.

features at the south ends of the bays may have been roots instead of postmolds. The overall dimensions of Structure 1 were approximately 30 ft east–west by 18 ft north–south.

Structure 2 appears to have been a double crib barn, a common barn type in the South. Crib barns, according to Auer (1989), could have from one to six cribs used to store fodder or for use as livestock pens. Crib barns were built with and without lofts, and were built of logs or were sheathed with vertical siding. The roofs of the early barns were typically covered with wooden shingles. Double crib barns are defined by a central “driveway” that extended through the barn.

The features that defined Structure 2 were probably related to interior details of the building, and did not reflect the outer walls. If this interpretation is correct, the building was actually a little larger than reflected in the surviving features.

The age of Structure 2 could not be determined with certainty during the archaeological investigations. It no longer was standing by 1872, however, and it is likely that it dates to early in the occupation of the lot. Barns would have been superseded by livery stables as the city

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expanded and fully incorporated the study area. Under this interpretation it is most likely that Structure 2 dates to the same period as Structure 1.

### **Structure 4**

Structure 4 was represented by a small rectangular feature and a single postmold near the south property line and east of Structure 2. Six other postmolds were excavated in the same area, but these may have been part of a different structure. The six postmolds near hypothesized Structure 4 yielded 64 fragments of window glass with a window glass date of 1836.5 (Jurney and Moir 1987:77–78), and may have been part of a structure that stood at the same time as Structure 1. The two features of hypothesized Structure 4 yielded dates of 1864.3 and 1873.5 based on small samples ( $n=19$  and  $n=11$ ). One of the two hypothesized Structure 4 features measured 5.4 (east–west) by 3 ft (north–south) and extended under an unexcavated balk to the north. That feature appears to have been a small root cellar that may have been part of the small building to the rear of the main residence shown on the 1872 Dries map (see Figure 2). No building was standing at that location by 1896.

### **Structure 5**

Structure 5 was found in the northwest quadrant of the study lot and west of Structure 1. The structure was defined by three parallel rows of round posts, with a possible fourth row that may have reflected a porch (Figure 9). The area that contained Structure 5 was more heavily disturbed than the area around Structure 1. No midden was present there, and the post sizes were fairly small. The configuration of the posts that defined Structure 5 suggests that the building that stood there had a floor, but little else can be said about it at this point. Structure 5 was not shown on any of the historic maps, including those that date to the twentieth century.

An alternative interpretation for Structure 5 is that it represents a carefully constructed arbor that contained three parallel rows of posts and a partial fourth row. However this structure is interpreted, it was located within what appears to have been a fenced compound at the rear of 317 S. Person Street.

### **Fences**

The 317 S. Person Street lot was delineated by rows of postmolds to the north, west, and south that clearly represent fence lines. The only postmolds excavated within those fence lines were situated on the south

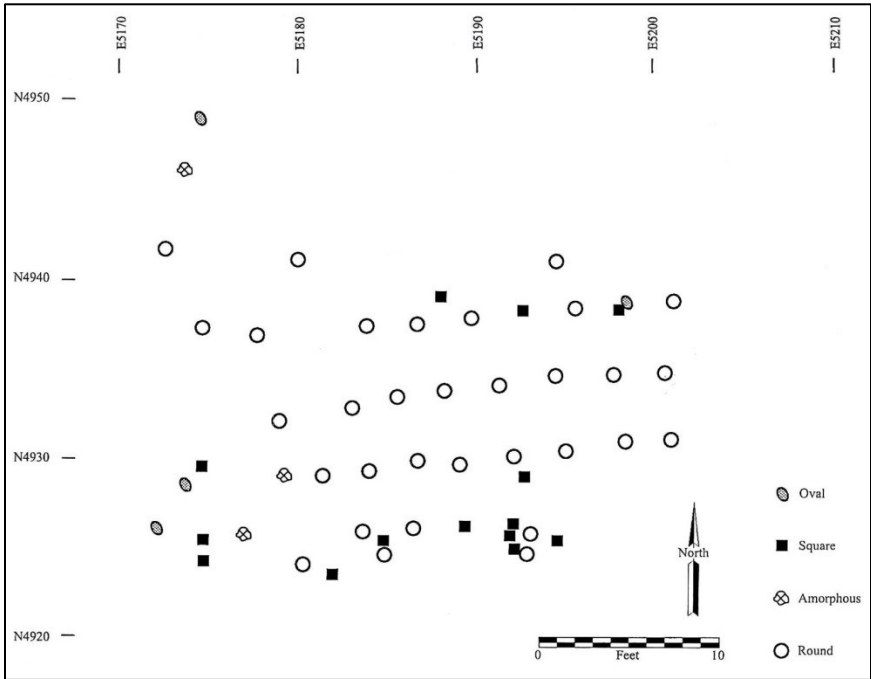


Figure 9. Map of Structure 5.

lot boundary, and those postmolds yielded artifacts that date to both the nineteenth and twentieth centuries. At least a few of the fence posts in the fence line to the east contained remnants of metal posts, but there was evidence that multiple fence lines had been present. At least three possible fence lines were defined inside of the lot in the excavated area.

**Discussion**

Excavations at 317 S. Person Street defined at least four and possibly five outbuildings located on the rear half of the lot (Figure 10). Historic maps showed the location of the original residence, which is also shown on Figure 10.

The structures found in the rear half of the 317 S. Person Street lot appear to be components of what Stewart-Abernathy (1986:5–15) has referred to as an “urban farmstead.” Urban farmsteads sheltered horses needed for transportation and livestock needed for milk or food, and also provided both sources of water and individual sanitation systems such as privies. Urban farmsteads included buildings such as barns, meat houses, smoke houses and the like. The urban farmstead was made

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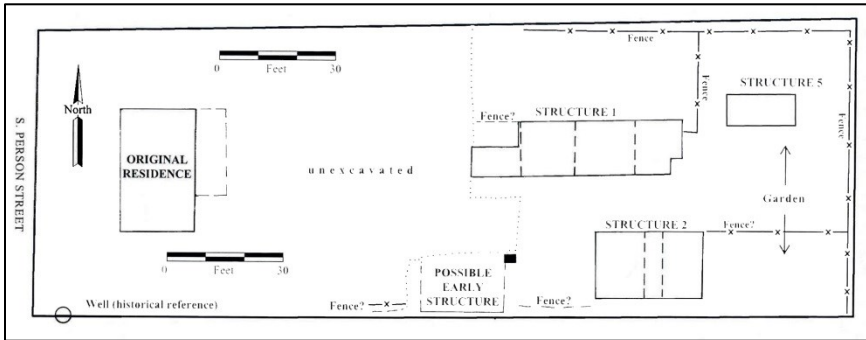


Figure 10. Map of structures at 317 S. Person Street.

obsolete by improvements in transportation, the advent of public water and sewer systems, and the introduction of specific city ordinances as urban centers developed.

The urban farmstead encountered at 317 S. Person doubtless had other structural and support components that were located in the unexcavated portion of the lot. As an example, it is known from deed records that a well was located on the property line between 317 and 319 S. Person Streets in the later nineteenth century (Garrow and Holland 2003:68), but it was in an area that could not be excavated during the current project.

The key to interpreting the urban farmstead that stood at 317 S. Person is understanding the age and function of Structure 1. The construction date for Structure 1 can be assigned to the 1830s, based on the window glass recovered from the Structure 1 postmolds. The artifacts recovered from the postmolds date, with very few exceptions, prior to the American Civil War. The few exceptions are believed to represent artifacts deposited well after Structure 1 was gone that were introduced to the postmolds by root action or even pressed into the postmolds during machine stripping. The age of the artifact assemblage from the postmolds is consistent with data from the available historical maps of the property. It appears that the urban farmstead was gone by 1872, which is reasonable in view of the infilling of the block by that point and the spread of the heavily urbanized portion of Raleigh beyond the study block by 1872 (see Figure 2).

The layout and bay sizes of Structure 1 appear to be consistent with structures that were occupied by African-American slaves in the eastern United States (Baker 1978:8; Deetz 1977:150; Fairbanks 1974:108; Mullins-Moore 1980; Otto 1977:104; Thomas 1998:538–539; Vlach

1977:52; Wheaton et al. 1983:207; Wilkie 2000:87). The three defined bays within the structure measured 12 ft by 10 ft, 16 ft by 12 ft, and 12 ft by 12 ft, with floors space that ranged from 120 to 192 sq ft (see Figure 6). The smaller extension on the west side measured 8 ft by 5 ft, and probably functioned as a porch. Three postmolds to the east may have defined a small porch at that end of the structure.

The strongest direct evidence that Structure 1 was occupied by African American slaves came from Feature 378, at the east end of the building, in the form of 31 white gastroliths or gizzard stones, a single white bead, and a pencil lead. Wilkie (2000:192–193) has stated from her research at Oakley Plantation in Louisiana that gizzard stones may have had ritual value to African American slaves. A similar argument has been advanced by Marten et al. (1997) and Patten (1992:6–7), who have hypothesized that gizzard stones were used as gaming pieces, divining stones, or as elements of charm bags. If their interpretations are correct, the most likely explanation for finding 31 gizzard stones together in Feature 378 with the bead and pencil lead is that they had been intentionally buried there. Given the number of gizzard stones found and their association with the white bead and pencil lead, it is most likely that they were components of a charm bag.

The dating evidence indicates that the urban farmstead was used during the ownership of Charles Johnson, who lived there from at least 1839 into the 1850s. His household in 1840 included seven white residents and four African American slaves. The white residents were probably Johnson, his wife, and their children. The slaves included a male and female between 10 and 24 years old, and a male and female between 36 and 55. The four African Americans could have been part of a single family, or could have been unrelated. The two slaves enumerated in Johnson's household in 1850 included a 15 and a 20 year old male. Based on their ages, the two slaves he owned in 1850 were probably not two of the same slaves he owned in 1840. His household in 1850 also included 13 year old Eliza Mainord, who was classified as a "free person of color."

The other structures found at 317 S. Person Street could not be dated through direct evidence. They were, however, within a well-defined fenced compound that they shared with Structure 1, and, like Structure 1, they do not appear on later maps of the property. Structure 2 was interpreted to have been a double crib barn that consisted of two distinct bays separated by a 5-foot wide walkway. A poorly defined structure was noted in the area of Structure 4, to the west of the barn, that

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could represent a building of unknown function that stood at the same time as Structure 1. Structure 4 may have dated a little later than Structure 1, and was represented by a root cellar and a single postmold that contained artifacts that linked the two in time. Structure 5 was another defined building in the back yard, and it consisted of parallel rows of small, round postmolds. This structure may have been an arbor, or it could have been a small storage shed to the rear of Structure 1.

As mentioned earlier, the urban farmstead at 317 S. Person Street likely had other components that were located closer to the residence in the unexcavated portion of the lot. Support facilities such as a kitchen, a smoke house or meat house, a chicken coop, and even privies were probably located in the “near” backyard of 317 S. Person, as opposed to the “far” backyard studied during this project. Those support facilities may have survived much longer than the elements in the far backyard, as the need for the “far” backyard facilities was negated by events and the spread of urban Raleigh through the area.

The full urban farmstead at 317 S. Person Street no longer functioned by 1872. The owners who lived on the lot after Johnson were not slave owners, and slavery as an institution was in its last decade when the Johnsons left. The barn and other buildings of the far backyard were no longer standing, and it is likely that the lot residents had found other ways to fill the needs that had been met at least in part by use of their own support structures and facilities.

### **Conclusions**

The results of the investigations at 317 S. Person Street have important implications for future research in urban Raleigh. It is clear that in the first half of the nineteenth century at least some urban lots were organized following the “urban farmstead” pattern described by Stewart-Abernathy (1986). Future research in Raleigh should attempt to further define the “near” and “far” backyard spaces on urban lots, and determine if the functional division hypothesized for 317 S. Person Street indeed has merit.

Furthermore, the results achieved at 317 S. Person Street should provide guidance to researchers interested in researching African Americans in pre-Civil War Raleigh. It was probably no coincidence that Charles Johnson grouped his slave housing and barn together in his “far” backyard. It probably reflected the widely held view in the region by slave owners that equated slaves to livestock in economic terms.



As a final note, although the major features and large, coherent artifact collections anticipated in the project research design simply were not present on the study lot, the project did yield important new information on the history and development of Raleigh. This result underscores the need to approach each urban project with a flexible research design that can be modified as needed to pursue unanticipated, but important, lines of investigation.

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# **UNTOLD TALES OF TWO CITIES: THE CURIOUSLY LIMITED HISTORICAL ARCHAEOLOGIES OF WILMINGTON AND CHARLOTTE**

**by**

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## **Abstract**

Founded in 1731, Wilmington became the center of politics and society in southeastern North Carolina in the late eighteenth century following the destruction of Brunswick Town and the American Revolution. In the 1980s the downtown area underwent an urban renewal, and today Wilmington boasts an historic waterfront district. Charlotte was similarly founded in the mid-eighteenth century at the intersection of two trading paths. Today, Charlotte is a major economic and social center in the Southeast. What do these cities have in common? Very few historical archaeological investigations have been done on the urban past in either city. This study explores why, despite two and a half centuries of continued growth and renewal, these two potentially historic treasures curiously continue to be overlooked by archaeologists. Potential thematic avenues for future research, based in localized contexts and urban research designs, are also discussed.

Wilmington, also known as the “Port City,” was established in 1731 and incorporated as a town in 1739. Following the American War for Independence, it became the center of politics and society in southeastern North Carolina. In the 1980s the downtown area underwent an urban renewal, and today Wilmington boasts a dynamic and diverse historic waterfront district. Approximately 200 miles west, Charlotte was founded in the middle of the eighteenth century at the intersection of two existing trading paths and was formally incorporated in 1768. Today the “Queen City” and associated Mecklenburg County has a population of almost one million people, is the seventeenth-most populous city in the United States, home city of the current North Carolina Governor, and is viewed as the social and commercial center of south-central North Carolina.

What do these two cities, with similar developments and unique histories but located at nearly opposite ends of the state, have in common? The answer is that very little urban archaeology has been conducted in either location. A cursory examination of past

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archaeological investigations in each city demonstrates what Bense (1987:84) observed in many preservation programs across the United States, that an over-emphasis has been placed on above-ground resources (e.g., standing historic structures) while an under-emphasis has been placed on below-ground remains (i.e., archaeological resources) that were more commonly undervalued. This is evident by the numerous structures that each city has currently listed on the National Register of Historic Places or on its study list solely for architectural significance, in contrast to little or no consideration given to associated archaeological resources.

This study explores why, despite some 262 years of continued growth and renewal, the rich archaeological potential of both Wilmington and Charlotte has not been explored more by archaeologists. A brief overview and summary of key urban archaeological projects that have taken place in these cities, primarily since the passage in 1966 of the National Historic Preservation Act (NHPA), will be presented. Potential thematic avenues for future urban archaeological research will also be considered for each city.

### **Previous Archaeological Avenues of Inquiry**

A major stimulus for urban archaeology resulted from the passage of the NHPA, which helped to establish a national policy for the preservation of historic properties. Section 106 of the NHPA outlines a mandated process that requires every Federal agency to ensure that historic properties are considered during project planning and execution. This includes considering how each undertaking will affect historic properties, which includes both precontact and historic archaeological sites. Further, all State and local governments requiring Federal assistance (i.e., permits, monies, etc.,) are also required to comply with Section 106. Interestingly, the genesis of NHPA was a grassroots preservation effort that noted the current and anticipated impacts that Federal programs, such as urban renewal, would have on historic properties and archaeological resources.

As stipulated by the North Carolina Administrative Code, the Office of State Archaeology (OSA) is the official repository and custodian of archaeological site file data for the "Old North State." These site files contain information pertaining to both precontact and historic archaeological sites, as well as underwater sites. The OSA also serves as the professional archaeology staff for the State Historic Preservation Office (SHPO) and the North Carolina Historical Commission. One of

the responsibilities of the SHPO is to insure that all applicable Federal and State laws that pertain to historic properties are followed and to maintain a database of all Section 106 compliance-related projects.

Therefore, the first step in background research for this study was to review the OSA archaeological site files database and the SHPO Section 106 compliance database for both Wilmington and Charlotte. For the years 2000 through 2006, prior to the recession of the last half decade in respect to stalled development and construction, a total of 533 compliance-related projects were recorded for New Hanover County, of which Wilmington (as a key word) comprised nearly 70 percent. When compared with United States Geological Survey Quadrangle maps marked with previous archaeological projects on file at OSA, this count was reduced to 102. In contrast, a total of 971 projects have been reviewed during those same years for Mecklenburg County, with some 367 listed as having been reviewed for Charlotte (as the key word). While it is apparent that Wilmington and Charlotte have not been forgotten with respect to NHPA review for Section 106 compliance, it is important to note that the vast majority of these projects were cleared without being subjected to an assessment of archaeological resources.

Despite many opportunities provided by NHPA review, when one realizes how little actual archaeology has been conducted within the limits of Wilmington and Charlotte as compared with many other urban centers in North Carolina, it is curious to consider that both cities are home to major state-supported universities that offer undergraduate programs in archaeology (anthropology) and history, and these cities also have local history museums. Archaeologists from anthropology departments at universities and local museums historically have played a key role in the development of archaeology and artifact collections in the southeast (Brose 2002). Yet despite the rich histories and archaeological potential found in Wilmington and Charlotte, with few exceptions urban sites have not been a topic largely addressed by these institutions.

The University of North Carolina at Wilmington (UNC-W) made a tentative move toward archaeology in the urban setting in 1974, but after that time research interests shifted towards local Native American precontact and contact period settlement, such as the exploration of the seventeenth-century Charles Towne settlement (cf. Loftfield 1989, 2005). As part of a class project in 2001, however, archaeologists from UNC-W excavated portions of the Martindale-McGinnis site, an extant eighteenth-century plantation house and its associated features (Basedown 2001). Conversely, the University of North Carolina at

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Charlotte (UNC-C) has hosted several archaeological field schools (Levy 1982, 1983) at urban sites, often in conjunction with the Charlotte-Mecklenburg Historic Properties Commission.

The Cape Fear Museum of History and Science was founded in 1898. Although originally founded by a group of local women who wished to preserve the objects and memories of the Civil War, its focus and mission have changed over the years. Today, the Cape Fear Museum of History and Science concentrates its efforts on the Lower Cape Fear region's history, science, and cultures through exhibitions and educational programs. Despite its location in downtown Wilmington, unlike some city history museums (e.g., Alexandria Archaeology Museum in Alexandria, Virginia, and the Charleston Museum of History in Charleston, South Carolina), the Cape Fear Museum does not have an active historic archaeology program. Records at the museum indicate that it has hosted several exhibits at the museum with selected artifacts from Stanley South's investigations at eighteenth-century Brunswick Town and Tom Loftfield's investigations at the seventeenth-century site of Charles Towne (e.g., a triangular arrow point knapped from broken wine bottle glass), but it has never sponsored an archaeological investigation on an urban site.

The City of Charlotte, in cooperation with the Mint Museum, opened the Charlotte Museum of History on July 3, 1976. The mission of the Charlotte Museum of History is educational in nature and interprets the history of the immediate region through exhibits and programs. The Hezekiah Alexander House, a two-story rock structure built circa 1774, serves as the centerpiece of the Charlotte Museum of History and is part of the interpretive program for the museum. Listed on the National Register of Historic Places, it remains the oldest standing house in the Charlotte-Mecklenburg metropolitan area. Though the Alexander House has been the site of several archaeological investigations (cf. South 1965, Contract Archaeology, Inc. 1971), the museum has not been active in historical archaeology projects in past years. Similarly, the Mint Museum, which is primarily focused on arts and crafts, and Discovery Place, a youth-oriented museum with "hands-on" science exhibits, have hosted temporary exhibits on world and regional archaeology, yet neither has actively engaged in the exploration of local archaeological resources.

When contacted by the authors, representatives from the Cape Fear Museum of History and Science and The Charlotte Museum of History expressed a sincere desire to host a formal archaeological program, but



noted that a lack of funding and professional staff precluded the possibility at the present time. It is interesting to note that museums near these two cities have active historical archaeology programs. The one closest to Charlotte is the Central Piedmont Archaeological Program at the Schiele Museum of Natural History in Gastonia. These stand in contrast to programs such as the one at the Museum of the Cape Fear in Fayetteville, which has a cooperative partnership with the Public Archeology Program at Wake Forest University for intermittent archaeological investigations of the Confederate Arsenal site.

Other than compliance-related investigations or exploration by individuals associated with local universities and museums, there are other avenues of inquiry and funding for the exploration of urban archaeological resources. These include the exploration of public historic sites (which includes investigations conducted during the site's development, for interpretation, or as part of maintenance activities), and public or privately funded, non-mandated investigations. One such example in Wilmington is the archaeological investigation at the George Hooper House by Stanley South (1962) who, while employed by the State of North Carolina, sought architectural features to compare with certain structural ruins located at Brunswick Town. The 1969 archaeological investigation undertaken at the Hezekiah Alexander House in Charlotte provides an example of a grant-funded project (Contract Archaeology Inc., 1971). However, despite these opportunities for exploration and options for funding, the primary focus of investigations in Wilmington and Charlotte has been the result of compliance-related investigations.

### **Theoretical Considerations**

The development of historic context and research design has long been viewed as critical first steps for any type of archaeological investigation, be they urban or rural, historic or precontact. Research designs are so vital that the Secretary of the Interior's Guidelines for Archaeology and Historic Preservation (48 FR 44716) states that an interdisciplinary process should be used to develop historic contexts that consider the needs and desires of scholars and the interested public. Such plans function best when they are used on specific topical or temporal research questions developed as part of a larger context, and enacted in conjunction with preservation plans. With respect to the concept of urban archaeology, where prior building episodes and subsequent disturbances can impact the continuous evolution of the cultural landscapes, this issue is especially vital.

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While the primary goal of this study is to examine the development and expansion of historic archaeological resources in the urban settings of Wilmington and Charlotte, care must also be afforded to consider precontact archaeological resources that reside within undeveloped urban contexts. For example, in the 1990s the North Carolina Department of Transportation sponsored a Phase I archaeological survey for a planned bypass near Wilmington. The study presented a series of historic contexts along with relevant research questions geared towards the type of archaeological resources that may be present in the project area. These contexts included land uses that changed over time (including precontact uses), the different property types associated with these uses, and the distribution of these property types across the area's landscape (Pickens et al. 1994:4). Though archaeologists are aware of the similarities in places that both precontact and historic inhabitants sought and chose to settle, many continue to neglect the possibility of undisturbed ancient resources within certain urban contexts.

As cities and towns may be of different sizes as well as of different antiquities, the following problem is a paramount consideration for the urban archaeologist: specifically, what constitutes the study area? Should it be limited to either a delineated or informally defined historic district, such as the colonial core of Wilmington illustrated on the December 1769 map by Claude Joseph Sauthier shown in Figure 1? An alternative to searching only historic areas is to include all lands currently occupied by urban development, which over time may have encroached into other cultural resources, such as neighboring historic plantations or farmsteads, as well as precontact resources. Yet a third option, for the same reason, could include all lands within a presently defined extra territorial jurisdiction (ETJ) for planned expansions. Largely, this question centers on the potential for archaeological resources, and the answer may be different for each city.

In this study, the third option will be considered for the following review of the known archaeological sites previously explored in Wilmington and Charlotte. As both cities have historic roots that extend back to at least the middle of the eighteenth century, this approach will encompass all aspects of archaeology in each modern city. Unfortunately, there are not enough archaeological resources presently documented to make definitive statements about either city with respect to its development and expansions of urban areas over time.

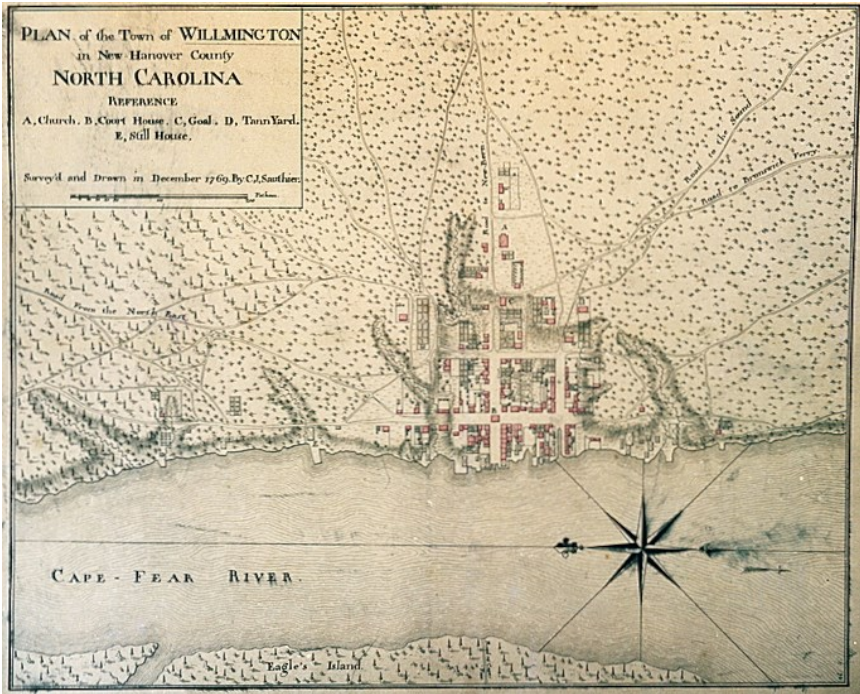


Figure 1. Claude Joseph Sauthier's map of "Willmington," dated December 1769, showing the core of the colonial town. In a comparison of all the Sauthier maps created between 1768–1770, Wilmington shows 125 primary residences or households, the third largest of all North Carolina towns behind New Bern and Edenton, respectively (Beaman 2013).

## Wilmington

Situated in the southeastern corner of North Carolina, Wilmington is located in New Hanover County, which was formed in 1729 from sections of Craven County. Established in 1731 on the eastern bank of the Cape Fear River, it underwent a rapid series of name changes, from New Carthage to New Liverpool and Newton (or “Newtown”). The name Wilmington was finally settled upon for its 1739 incorporation, chosen to honor Spencer Compton, the Earl of Wilmington and primary patron of Gabriel Johnson, North Carolina’s Royal Governor at the time (Powell 1968:537). Beginning with the abandonment of neighboring Brunswick Town during the American War for Independence, Wilmington flourished as the center of politics and society in the region. Today it continues to be recognized as one of the major oceanic ports along the Atlantic Coast. Presently, Wilmington encompasses 41.5

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square miles of the 185 square miles that comprise New Hanover County (or nearly a quarter of the county).

The Wilmington Historic and Archaeological District, one of seven National Register Districts listed in New Hanover County, is also one of the largest in North Carolina. This district was placed on the National Register of Historic Places in May of 1974, and in May 2003 its boundary was expanded. During the 1980s, the downtown area underwent an urban renewal, and today Wilmington boasts an historic waterfront district centered on Chandler's Wharf. Along with its associated maritime elements, this historic waterfront was a key factor in the founding, development, and growth of historic Wilmington. It is therefore not surprising that the waterfront area in general, and maritime archaeology in particular, has been witness to the most intensive focus of urban archaeology. The downtown Historic District can be described as a virtual time capsule, although little systematic or topic-oriented archaeological research has been conducted within.

As with many colonial-period towns in North Carolina, Stanley South conducted the earliest systematic urban investigations in Wilmington in 1962 at the extant George Hooper House, located at 6 Church Street. South, then an archaeologist with the North Carolina Department of Archives and History, had been shown the house by local historian R. V. Asbury, Jr., and had immediately recognized it as one of the oldest in the city. A close examination of the structure by South and Asbury revealed several aspects of the foundation construction that were similar to those found at nearby Brunswick Town. South undertook a brief, two-day investigation of the house and lot. According to South (1962:3), the primary purpose of the investigation was to assist in the establishment of the construction date of the building, and to correlate it with the commonly accepted construction date. Once a date was established by the foundation construction techniques, it could then be compared with similar structure foundations at nearby Brunswick Town. The excavation by South and his assistant Charlie Smith revealed a "cobblestone" floor in the semi-sunken basement (South 2005:191). At the conclusion of the project, South determined the archaeological and historical data for the property correlated well to a construction date of between 1791 and 1800. This comparative example also served well in the development of a historic context and later architectural interpretations for the ruins at Brunswick Town (South 2010). South (2005:191) also remembered a large fig tree with ripe figs in the yard of

the George Hooper House, and later wrote that there were “fewer when we left than when we arrived.”

Twelve years later, Timothy Thompson, then a staff archaeologist with the North Carolina Department of Cultural Resources Archaeology Section, attempted to locate structural remains and/or artifact concentration associated with the nineteenth century Hilton House. According to oral history, this structure stood until ca. 1909, and had served as a residence and a resort hotel that even housed private offices. Ballast stones scattered across the site prompted Thompson to use a series of one meter wide trenches in hopes of discovering if the house was built on a semi-subterranean curtain-wall foundation, similar to those at Brunswick Town. Conducted in association with the 1974 UNC-W Underwater Archaeology Field School, the only features encountered were bulldozer scars and recent construction detritus. Although the field investigations were less than productive, Thompson noted one important lesson: several weeks after the investigation, a local resident revealed that approximately five years prior the entire top of the hill had been mechanically removed. In describing this conversation, Thompson (1974:2) noted that “research should definitely be conducted before, rather than during, excavations.”

The 1852 Latimer House, located on the corner of Third and Orange streets, presently serves as a house museum and has been home to The Lower Cape Fear Historical Society since 1963. As part of the restoration of the slave quarter and surrounding yard space, Thomas C. Loftfield, then Professor of Anthropology at UNC-W, and students from two undergraduate archaeology courses attempted to evaluate proposed impacts from nearby development on the extant structure. Investigations within and outside the structure began in September 1976 and continued intermittently until April 1977; they revealed an extensive history of use and remodeling of the two-story structure. An original cellar, dating to the antebellum period, had been filled with soil. This fill covered ballast-stone retaining walls that supported the northern, western, and southern walls along a naturally steep, western-facing slope. The eastern chimney was original, but the two western chimneys and southern chimney had been added later. Evidence of a front porch was discovered, but it dated to the late nineteenth century. Overall, Loftfield and Bradford (nd:10–11) speculated that an existing workshop was converted into a residential quarter in the 1850s, and was remodeled and converted into two apartments (one over another) during the early post-bellum period. Additionally, two narrow trenches excavated for utility lines between the

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Latimer House and quarter structure also revealed the entire backyard had been filled with a minimum of least six feet of soil prior to the construction of the house, possibly to create a level yard space.

In June of 1984, John Clauser, then an archaeologist with the North Carolina Department of Cultural Resources, conducted a one-day site inspection at the southwest corner of Red Cross and Seventh streets, thought to be the location of the first black hospital in Wilmington. This corner was in the process of being graded in preparation for the construction of a dental clinic. As a result of these earth movement activities, several brick foundations and portions of walls became visible in mechanically excavated trenches. According to Clauser and Angley (1984:1), the primary goal was to record visible remains and to recover sufficient evidence to place the remains within a time frame.

Unfortunately, time did not permit documentary research prior to the field investigation. After limited shovel tests and use of a probe to trace out foundations, Clauser determined that the structural remains were not those of the hospital but those of an ancillary structure, possible a dwelling or pharmaceutical warehouse. Post investigation archival research by Wilson Angley was instrumental in the placement of the site in a proper historic context and subsequent interpretation of the field data. In their summary report, Clauser and Angley (1984:12) note, “even considering the amount of disturbance caused by the construction of the dental clinic, a vast majority of the evidence available on the site remains undisturbed.” The dental clinic was not constructed, and to date no further archaeological investigations have been undertaken at this street corner.

The following year, Clauser carried out limited archaeological investigations at the deRosset House, located on the corner of Dock Street and Second Street. This fieldwork was designed to assist in the restoration of the landscape, including a formal garden, in the front yard of the residence. During this project he identified numerous archaeological and architectural features associated with the house, including a brick wall, the edges of flower beds, a brick cistern and associated brick storage tank, an articulated brick pier, and portions of a dry-laid ballast-stone walls. According to Clauser (1986:6), these features were only located, recorded, and protected for future investigations; no attempt was made to excavate or completely interpret what was found. Despite the limited scope of this investigation in August 1985, it provided significant evidence related to the historic landscape of the front and side yards, and demonstrated the considerable

amount of archaeological evidence at the deRosset House which should be protected during the restoration (Clauser 1986:37–38).

Also in 1985, a joint terrestrial and marine archaeological survey was conducted at the location of the proposed Castle Street boat ramp. Archaeologists Thomas Hargrove and Gordon Watts (1986) identified and recorded the remains of a nineteenth-century gas works depicted on the Gray Map of 1881. This investigation encountered two impediments that are not uncommon during archaeological work in an urban setting. The excavation of an exploratory trench breached a pressurized water line, which caused a delay in investigations while it was repaired. Secondly, saturated oily soil was encountered in another area, which made investigation difficult and potentially hazardous. Both of the incidents reinforced the necessity of extensive archival research before the implementation of field investigations.

In July of 1989, Carolina Archaeological Services undertook archaeological explorations over three city lots at the southwest corner of Chestnut and Third streets in advance of a planned United Carolina Bank and associated parking garage. Prior to the fieldwork, Drucker (1989) developed a methodological approach and research questions based upon the historic context for the Wilmington Historic District. Careful field excavations revealed refuse-filled ditches, patterns of postholes, brick foundations, and two cisterns. The site was designated as 31NH684, and Drucker (1989) demonstrated its outstanding subsurface integrity. She recommended that the site be subjected to data recovery prior to the beginning of construction. Data recovery excavations were conducted the following year on the single lot that would be impacted by the construction of the bank and garage. The excavation of the two cisterns revealed that they were probably constructed simultaneously sometime between 1840 and 1915, though archival research conducted in tandem with the field investigations suggested a tighter date range of 1875–1890 (Brockington and Elliott 1990:i).

The Bellamy Mansion of 503 Market Street stands as one of the premier historic residences of Wilmington. As part of the restoration of the rear yard and extant outbuildings, David Jones (2001) conducted intermittent investigations between May 1997 and May 2000 in an attempt to recreate the historic landscape and provide an accurate interpretation of slave life at the antebellum residence. Excavations near the carriage house and poultry shed yielded material information about activities associated with those structures. Investigations around the slave quarters, an extant two-story brick building in the northeast corner

of the lot, revealed post holes from remnant fence lines that, along with the poultry shed, would have obscured the yard of the quarter on the three sides. The building contained a single privy pit that served two privy rooms with a total of 10 holes, a design noted for its uniqueness among other privies documented in North Carolina (Carnes-McNaughton and Harper 2000:107). Unfortunately, extensive disturbance from bottle collectors resulted in the recovery of very few artifacts. Interestingly, there was writing on the wall of the western privy room that listed recognized names of slaves who lived in the quarter. Several clusters of artifacts, including one comprised of a green glass bead and a bone button, had been deliberately placed beneath a brick in the hearth during the construction of the building. Jones (2001:4) interpreted these clusters as possible material evidence of the West African nkisi ritual, which could have served as a general blessing to counter-act a spell, cure disease, or predict the future for the inhabitants of the quarter.

Beginning in 2001, Maureen Basedow, then Professor of Anthropology at UNC-W, began archaeological excavations at the Martindale-McGinnis Site. Located within the city limits of Wilmington, this site encompassed approximately 10 acres and included an extant plantation house, two slave quarters, stables, wells, privies, cisterns, outbuildings, a mill, and a probable slave cemetery. The ceramic assemblage recovered from test investigations around the main house revealed a previously undefined eighteenth-century component, which preceded the extant structure that was thought to have been constructed sometime between 1825 and 1840 (Basedow 2001). Although the excavations were limited, they demonstrate that, even in a modern urban setting, small historic farmsteads and possibly larger plantation-type farms still remain visible in the archaeological record.

Most recently, in 2006 Southerly Research Group undertook an archaeological assessment of properties at 8 and 10 Church Street, located within the Wilmington Historic District at the southwest corner of Front and Church Street. Existing property covenants and the involvement of the Wilmington Housing Authority necessitated that Section 106 and Section 110 of the National Register Historic Preservation Act be addressed prior to any redevelopment. Through a rigorous regime of archival and cartographic research, as well as a visual inspection of the properties, the Southerly Research Group prepared a lot-specific historic context with corresponding field methodology prior to the archaeological fieldwork. Using this approach, evidence identified from archaeological investigation corroborated the historical documents



and closely mirrored the extant cartographic information. A total of 85 individual archaeological and architectural features were identified and documented, including two cisterns, a brick foundation, a brick chimney base, four privies, outbuildings, and a relic fence line (Southerly and Southerly 2006).

A summary review of the urban archaeological projects in Wilmington conducted over the past 50 years makes apparent several conclusions. First, despite almost two and three-quarter centuries of continued development, occupation, and redevelopment, intact subsurface archaeological and extant architectural features survive in abundance, often in tandem with each other. Period maps such as the 1769 town map by Claude Joseph Sauthier, Gray's Map of 1881, and the Sanborn Insurance maps remain vital tools to locate areas of past human activities (i.e., domestic, commercial, and industrial sites), and have repeatedly proven and continue to be essential for the identification and interpretation of architectural and archaeological features within an urban context. A final critical element is obvious: it is paramount to develop a historic context prior to the commencement of fieldwork.

Almost 50 years ago, when Stanley South undertook the first urban archaeological project at 6 Church Street, he had specific research goals that he sought to answer. A review of the urban investigations in Wilmington since that time suggests that South set a standard for the use of a multidisciplinary approach that combined elements of architectural history, field investigations, and soil science. It is very satisfying to note that recent projects, most notably by Drucker (1989) and the Southerly Research Group (Southerly and Southerly 2006), continue to recognize the importance of this approach, and have developed lot-specific contexts and research designs with appropriate field methodologies to address research questions. The urban investigations in Wilmington over the past 50 years have repeatedly shown that the most successful results have been based on the use of localized contexts to guide the research, be it a compliance or simply restoration-oriented project.

### **Charlotte**

Located in the western portion of the southern Piedmont region, Charlotte was founded in the mid-eighteenth century at the intersection of two historic Native American trading paths. It was incorporated as the county seat for the newly formed Mecklenburg County in 1768, and named to honor Queen Charlotte Sophia of Mecklenburg-Strelitz, wife of King George III of the United Kingdom (Powell 1968:318). Charlotte

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gained much notoriety during the American War for Independence, when fierce opposition by the citizens drove General Cornwallis out, prompting him to proclaim in 1780 that the town was “a damned hornet’s nest” (Powell 2006:202). The town immediately adopted the moniker with pride. Today, Charlotte is the largest city in the state (297 square miles) and occupies almost half of modern Mecklenburg County (approximately 525 square miles). It stands as one of the most highly urbanized and populated centers in North Carolina and, as enumerated in the 2010 United States Census, is the seventeenth-most populous city in the United States.

Like Wilmington and many other towns in the state, Stanley South was the first archaeologist to conduct investigations in Charlotte. As part of his role as a state-employed archaeologist to assist in the development of historic sites, South responded to a request by Mrs. Oscar W. Threadgill, a member of the Daughters of the American Revolution, to investigate the Hezekiah Alexander House. Built in 1774, the once residence of Hezekiah Alexander, a signer of the Mecklenburg Declaration of Independence, was (and is) operated by a private foundation as a local house museum. In March 1965, South and assistant Bill Faulk conducted a preliminary examination of the yard just north of the main residence to locate a former structure for possible reconstruction. Though no evidence of a structure was identified in the excavated trenches, South (1965) did note many post-depositional disturbances across the site, such as a recent ground disturbance associated with the installation of a septic tank.

Four years later, in consultation with the North Carolina Department of Archives and History, the Hezekiah Alexander Foundation, Inc., commissioned a six-week archaeological exploration around the main residence. The primary focus of this investigation was to document any archaeological, architectural, or landscape features that could aid in the overall reconstruction of the site and its built environment. Specific attention was focused on the planned restoration period of 1767–1801, when Alexander lived in the residence. Despite the many post-depositional disturbances across the site noted by South, it was hoped that additional investigations might identify areas that retained archaeological integrity; unfortunately, such was not the case. While the excavation of the springhouse provided details on its overall size, method of construction, and function, the archival research undertaken in tandem with this field project was not sufficient to delineate the specific boundaries of Alexander’s property nor many transportation-related

features surrounding the property (Contract Archaeology, Inc. 1971:3). Once again, this project illustrates the importance of a comprehensive archival regime and how the development of a local context with specific research questions and appropriate field methodology is critical to the successful outcome of an archaeological field investigation.

During an historic building survey conducted in the winter of 1980, what was initially recorded as a “pile of rocks” within Charlotte’s municipal boundaries was determined to be an eighteenth-century stone structure. Situated near the headwaters of Reedy Creek, this 33 ft by 29 ft structure was identified as the Robinson rock house, the residential seat of a colonial-period plantation (Boyte 1981; Carr 2007). Archival and archaeological evidence suggest that the Robinson rock house may have been built between 1772 and 1778 by John Robinson on a royal land grant left to him by his father (Boyte 1981:5). Along with the Hezekiah Alexander House (1774) and the Wallace Stone House (1776), the Robinson rock house is one of only three known colonial-era stone house sites in Mecklenburg County. It is possible the residence was built by the same group of stonemasons that constructed the Hezekiah Alexander House and the Wallace Stone House. A local historic designation for the site was eventually enacted by the Charlotte-Mecklenburg Historic Landmarks Commission (Huffman 1981; Carr 2007). Despite the rapid expansion of the Charlotte-Mecklenburg metropolitan area, it is indeed surprising this site had remained largely undisturbed since its abandonment in 1899.

Following the discovery of the Robinson rock house, Janet Levy of UNC-C undertook an archaeological investigation of the residence. Levy’s investigation documented several discrete clusters of shaped and dressed fieldstones which may represent the remains of associated outbuildings. Additional archival research, undertaken in conjunction with the field project, suggests that a summer kitchen, blacksmith shop, carpenter shop, smokehouse, and slave cabins could be present in the vicinity of the house (Levy 1982:2). In consideration of the overall historic importance of the Robinson rock house, its designation as a significant local site by the Charlotte-Mecklenburg Historic Landmarks Commission and the integrity of the archaeological resources have afforded the site eventual nomination to the National Register of Historic Places. These designations have also served to provide a degree of protection for this unique historic residence.

During the summer of 1983, Levy undertook the archaeological investigation of the McIntyre Cabin site as part of a class project. This

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site is located within the McIntyre Historical Site, a small, privately-funded public park in northern Mecklenburg County. The park contains remnants of the cabin's foundation and several pits that represent a nineteenth-century gold mining operation. Local tradition also held that a small Revolutionary War skirmish took place within the immediate vicinity of the cabin site. According to archival and archaeological research, the cabin was constructed in the middle of the eighteenth century and measured approximately 20 ft by 22 ft. It consisted of a one-room structure with loft, a brick chimney, and a stone hearth. The cabin remained extant until 1941. Levy placed five exploratory test units across the site in an effort to better define the cabin's foundation and examine the spatial distribution of artifacts. Though the artifact yield was low, the bulk of the recovered artifacts consisted of nails and ceramic fragments, including blue shell-edged pearlwares, plain whitewares, and plain glazed coarse earthenwares. No artifacts were recovered that date to the time of the cabin's construction. Levy (1983:4) states that while no subsoil features were documented within the limited number of excavated test units, such contexts could be revealed during future explorations.

The excavation for foundations of the Charlotte Convention Center in 1992 uncovered a myriad of late nineteenth-twentieth century artifacts, including fragments of glass bottles, newspapers, faunal remains, and unidentified metal objects. Archaeologist Alan May of the Schiele Museum of Natural History was asked to assist with the identification and conservation of these artifacts. In addition to those artifacts recovered by construction workers, May (1992) also collected a few more that were visible on the ground surface. While this project was not subjected to environmental review, archival evidence conducted by May in association with the artifact analysis revealed that the site area once contained a railroad yard, bottling works, mill, livery stable, and a publishing house. An African-American neighborhood with residences, libraries, and churches also once occupied the area both within and immediately around the Charlotte Convention Center construction site. No additional archaeological research was conducted in association with the construction of the Charlotte Convention Center.

In 2006, a cultural resource assessment was conducted for the location of the proposed Federal Courthouse in Charlotte. Through the integration of archival and cartographic research, combined with a preliminary field visit to the project area, Olson and Espenshade (2006) were able to determine that the study area had been divided into half-acre

lots prior to 1781, and that residential structures were present by 1862. Further archival examination of Charlotte City Directories determined who owned the residences and, in many cases, what was their primary occupation. Through this interdisciplinary approach and with a minimum of fieldwork, Olson and Espenshade (2006:41) determined the location had a high potential for archaeological resources and were able to define several specific areas for deep historic features, such as wells, privies, and cisterns. They also provided recommendations as to how best record and sample these features, though no additional archaeological investigations have yet been conducted.

Most recently, a small eighteenth-century cemetery that contained 14 individuals was discovered at the CMC-Mercy Hospital. The cemetery had been covered by fill containing early twentieth-century artifacts when a parking lot was built there, and it was identified during construction for a planned expansion of the hospital. Historical research undertaken as part of this project identified the family names noted on the displaced stone markers found within the fill—Sprott, Barnett, Bigham, McKnight, Johnston, and Peel—as among the earliest recipients of land grants and original historic settlers in Mecklenburg County. Archaeologists excavated the 14 individuals and items associated with the burials (including personal items, as well as wrought nails, shroud pins, and fragments of wood from the coffins). The remains were ceremonially reinterred at the nearby Steele Creek Presbyterian Cemetery among the eighteenth-century graves of the same family names identified on the markers (Matternes and Gillett 2007, 2010).

As one of the largest developed centers in the North Carolina, a summary review of the urban archaeology in Charlotte is disappointingly brief. Like many other towns, it did not escape the attention of Stanley South, who again by his work set a precedent for multidisciplinary approach to the material past. With the exception of the Sprott Cemetery, the focus of the archaeology within Charlotte has been on domestic sites, from the exploration of the stone foundations and landscapes of the Hezekiah Alexander and Robinson rock houses to investigations as part of the modern reuse of land from nineteenth-century neighborhoods. The few projects that have been conducted yielded very positive results. Perhaps because Charlotte has grown exponentially outward from its center into surrounding Mecklenburg County, much of the historic urban core still likely remains hidden, patiently waiting for archaeologists to rediscover it.

### Discussion and Conclusions

In reflection on the over 262 years of occupational history, Wilmington and Charlotte have played and continue to play vital roles in the settlement and growth of North Carolina. Wilmington was and still is known for its deep-water port. Its initial residential and commercial development was concentrated along the waterfront, which served as a local and regional transportation center. Slavery came early to the area, and was used to develop and operate the naval stores and lumber industry that helped to fuel the local economy. By 1840 Wilmington was the largest town in the state, and served as home to one of the most important ports on the East Coast. This port served as an important base for Confederate blockade runners during the Civil War.

Because of Wilmington's antiquity, numerous historic buildings from the colonial, antebellum, and post bellum era remain extant. These structures, along with their often-intact architectural and archaeological features, offer opportunities for the development of behavioral models to study cultural change in the Lower Cape Fear region. Specific research topics may include, but are not limited to, landscape and land-use studies that chronicle how the urban landscape changed from the original historic settlement with an active city-center port to its later relocation several miles south. Because of its close association with commercial shipping, Wilmington can provide the type of contextual information necessary to study the extant urban infrastructure, especially the combination of domestic, residential and commercial structures located immediately adjacent to each other. At times, a single structure may have simultaneously served all three purposes. Other potential studies could concentrate upon historic subsistence practices and consumer behavior in relation to the port versus local urban farmsteads. More detailed examinations of gender and ethnicity as related to the port setting would also be enlightening. As more sites are explored, the study of neighborhood formation and evolution over the centuries may offer a fresh, new perspective of Wilmington from its initial settlement through present day.

Unlike Wilmington's reliance on water-traffic, Charlotte, located over 200 miles west, began in the colonial backcountry as a local crossroads for people to exchange ideas, goods, and services. Today, due to its tremendous size and large population, it serves as a crossroads for the southeast. Charlotte has become a major financial center and is home to two of the nation's largest financial institutions. This is no

surprise, given the first discovery of gold in the United States happened in 1799, some 23 miles west of the city. This discovery, and subsequent others, resulted in a financial boom to the city that generated the founding of the Charlotte Mint in 1837 (Knapp and Glass 1999:29–30).

As the largest city in North Carolina, Charlotte has progressed greatly from its genesis as a community situated at the intersection of two colonial trading paths. Such an area would readily lend itself to an intensive examination of its sequence of rapid urban development, especially the transition from rural to urban land use. This is especially possible in regards to the establishment and evolution of transportation networks, as well as the formation of neighborhoods. There are many specific research questions to be addressed with the development of local contexts and targeted excavations. For example, how did the location of Charlotte at a crossroads affect its consumer patterns related to early subsistence practices and material culture? Are specific types of foodstuffs associated with specific neighborhoods, and is there any evidence of shifts or changes in diet over time? Can evidence of socioeconomic variation be recovered archaeologically that would spatially or temporally define different ethnic neighborhoods? What evidence of demographic, economic, or social indices exists archaeologically that might help explain the rapid, continued urbanization of Charlotte in the nineteenth and twentieth centuries? Finally, how does the material culture recovered in Charlotte compare with that found at other urban sites across North Carolina and the southeast? These are only a few select research questions that could be used to guide problem-oriented archaeological research.

The histories of Wilmington and Charlotte have not been truly forgotten but, when compared with other cities and urban areas across North Carolina, have admittedly not been focal points of targeted archaeological investigations either. Almost 50 years since the first historic property was placed on the National Register of Historic Places, the urban archaeological database is beginning to populate, albeit slowly. While at present there does appear to be a less than overwhelming appreciation for the hidden component of standing structures, local and regional sentiment is slowly changing towards resource stewardship.

As commercial development continues in both Wilmington and Charlotte, the urban landscape continues to evolve and expand, and consequently the archaeological record is being forever altered or destroyed. While continued development in these cities is inevitable, the archaeological resources must be carefully considered and monitored

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in tandem with growth. As noted by Garrow (2000) in his study of urban archaeology in Tennessee, archaeological research can produce many types of information that are available from no other source. The authors hope that future archaeologists, be they from universities, museums, privately funded, or culture resource management, will focus their efforts on unraveling the urban histories of Wilmington and Charlotte. These important municipalities offer a tremendous amount of archaeological potential waiting to be discovered and documented.

### Notes

*Acknowledgments.* This study is not the sole effort of an individual but a collaborative endeavor of many, for which the authors thank for their valuable encouragement and assistance, and hope this final product reflects well on their efforts. Editorial advice was generously provided at different stages of this study by Linda F. Carnes-McNaughton (Fort Bragg Cultural Resources), Jack Bernhardt (Wake Technical Community College), Linda Stine (UNC-Greensboro), Jennifer Gabriel-Powell, and Pam Beaman, for which it is much improved. Additional thanks go to R. P. Stephen Davis, Jr., Editor of *North Carolina Archaeology*, for providing the technical support necessary to see this manuscript into print.

The initial version of this study was crafted for presentation at the 2007 Society for Historical Archaeology Conference in the symposium “Beyond Brunswick and Bethabara: A Reconsideration of Patterns and Processes from 50 Years of Urban Archaeology in North Carolina.” A condensed version of the Wilmington data was also presented at the 2013 Southeastern Conference on Historic Sites Archaeology. While the basic content has not changed, these earlier versions have been expanded and sections elaborated for its reproduction in print.

*Figure Credits.* The Sauthier map of Wilmington, shown in Figure 1, is from the North Carolina State Archives and was accessed online at: <http://www.flickr.com/photos/north-carolina-state-archives/3058319935/in/set-72157610020632723>.

*Disclaimer.* Even with the tremendous support and assistance of the individuals acknowledged above, the authors assume full responsibility for any factual errors and the interpretations presented in this study.

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# **THE PREHISTORIC OCCUPATION OF LAKE PHELPS**

**by**

**Greg Pierce**

## **Abstract**

The discovery of prehistoric dugout canoes on the floor of Lake Phelps in the 1980s caused considerable excitement, as the sample tripled the number of known canoes in the state. Over the next 25 years, 11 archaeological investigations were conducted to examine the canoes and the prehistoric occupation of the lake. The work recovered over 5,000 artifacts and located and documented 23 canoes. Diagnostic artifacts and radiocarbon dates show prehistoric lake use dated from the Late Paleoindian/Early Archaic period through the Late Woodland period. Unfortunately, this body of work has seen little recent synthesis. As prehistoric cultural material continues to be uncovered at Lake Phelps, it is necessary to develop a more complete understanding of the history of investigations in order to create a comprehensive dataset from which to base future research. This paper will briefly discuss each of the archaeological investigations of the prehistoric component of Lake Phelps. Data from these previous investigations will be re-analyzed and integrated with information from recent field work. This synthesis then will be used to present a preliminary discussion of the prehistoric use of Lake Phelps.

Lake Phelps is part of Pettigrew State Park, located in Washington County, North Carolina, on the Albemarle Peninsula (Figure 1). The site sits on the northern North Carolina Coastal Plain which itself is part of the Lower Atlantic Coastal Plain (Stuckey 1965:7). Interest in the prehistoric occupation of Lake Phelps began in 1985 when water levels at the lake dropped due to drought and firefighting efforts. During the spring of that year park visitors and employees reported prehistoric ceramic and lithic material on the lakebed. Dugout canoes were discovered by the end of the summer. Their discovery was considered especially important, as only ten had been recovered in the entire state at this time. The North Carolina Office of State Archaeology (OSA), the Underwater Archaeology Unit (UAU), and East Carolina University (ECU) engaged in cooperative and individual projects over the course of the next two years in efforts to investigate the canoes and their associated cultural material. This work resulted in the recovery of thousands of

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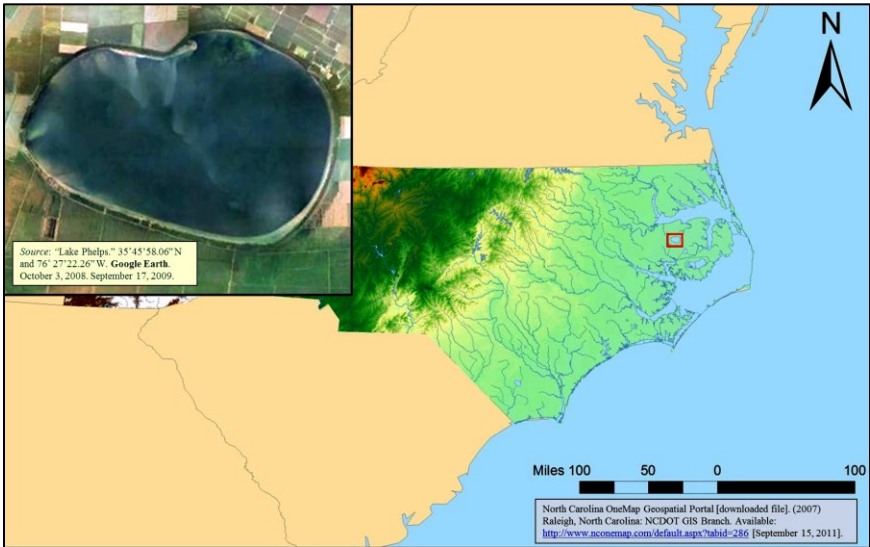


Figure 1. Location of Lake Phelps in Washington County, North Carolina.

prehistoric artifacts and the discovery and documentation of 23 dugout canoes, four of which have been recovered. Investigations continue to recover prehistoric material to this day.

Archaeological investigations focusing on the prehistoric occupation of Lake Phelps have been conducted at two locations: site 31WH12 on the northern shore and site 31WH13 on the western shore (Figure 2). This work has consisted primarily of survey in the shallow lake waters. Where the lake meets the treeline and the shore begins, the terrain is swampy with poor ground visibility, making it unsuitable for pedestrian survey. However, the lake itself is relatively calm and shallow, providing good visibility of artifacts on the lakebed. To date 5,829 prehistoric artifacts and 23 dugout canoes, 19 of which have been radiocarbon dated, have been recovered from the lake. Diagnostic artifact types and radiocarbon dates show that the prehistoric occupation of the lake began during the Late Paleoindian/Early Archaic period and lasted through the Late Woodland period.

A general culture history for the lake was developed by Phelps (1996); however, a complete evaluation of the prehistoric activity at Lake Phelps was never undertaken. Much of the work conducted was recorded on site forms or in reports submitted to the OSA. Each report was written independently, and data from other surveys or investigations

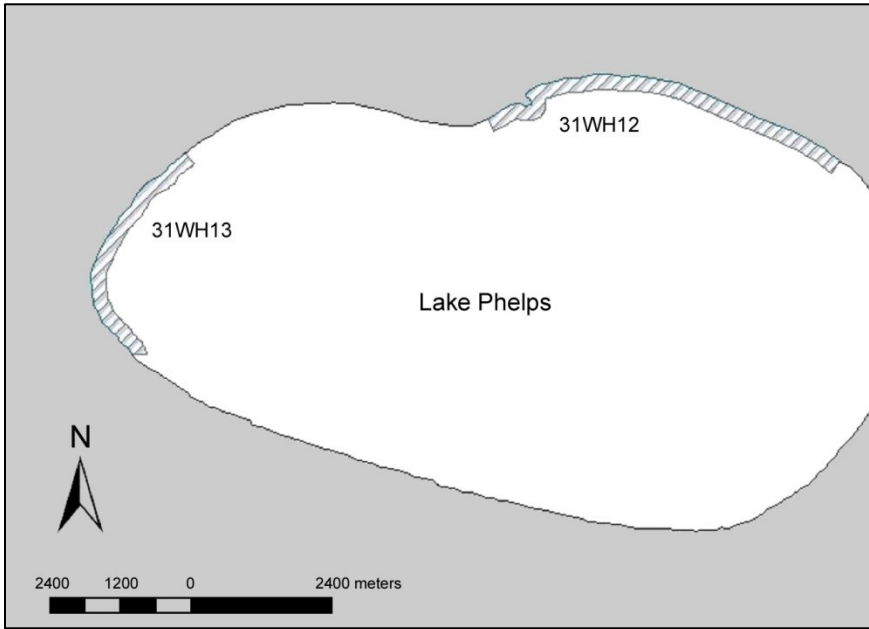


Figure 2. Location of state designated archaeological sites at Lake Phelps.

often were not integrated. Additionally, the results of many of these works were never published. Of those that were, information about the methods of data collection and analysis was not included. This article presents the findings of a recently completed Master's thesis which reconstructed and reanalyzed the current body of work from Lake Phelps in an effort to expand our understanding of prehistoric lake use and to provide data on which to base future investigations (Pierce 2010).

### **History of Investigation**

Eleven archaeological investigations have focused on the prehistoric components of Lake Phelps since the discovery of the first dugout canoe on the lake bed in 1985. In this section I present the background, methods, and results from each survey. The research project that resulted from the analysis of this data will also be discussed.

#### *The Initial Canoe Investigations (1985–1986)*

On November 18, 1985, members of the UAU visited Pettigrew State Park in response to reports of the presence of a dugout canoe on the lakebed. UAU officials located the canoe and found it to be in two

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pieces approximately 46 meters (m) apart. A search was conducted for additional canoes and visible ceramics were collected. The decision was made to recover the canoe at a later date. On November 20, UAU staff returned and recovered both sections. The remnants were transported to the UAU preservation laboratory to be curated. The location of the canoe was recorded as site 0001PHL. Collected materials were provenienced using this number; no data were recorded on the spatial distribution of the material within the larger site 0001PHL. Site 31WH12 now contains 0001PHL (Underwater Archaeology Unit 1985:1).

UAU and OSA officials met with park personnel in January, 1986, to discuss future work at 0001PHL, recover additional canoe fragments, and search for a second recently reported canoe near the site. A brief survey located a partially exposed canoe approximately 90 m offshore. Limited probing and hand excavation revealed a 9 m long dugout canoe. This location was designated 0002PHL. The second canoe was recovered in April, 1986.

Wood samples were taken from 0001PHL and 0002PHL, returning radiocarbon dates of 770 BC and 900 BC, respectively. Portions of canoe 0001PHL are currently displayed at the Estuarium in Washington, North Carolina, and the Plymouth Maritime Museum in Plymouth, North Carolina. A third section is in storage at the UAU in Kure Beach, North Carolina. Canoe 0002PHL is on display at the North Carolina Museum of History in Raleigh (Watkins-Kenney 2008:18–20).

In June 1986, members of the Pettigrew State Park staff recovered a third canoe from private property next to the lake. A fourth canoe was discovered in July of that year; it was removed and temporarily stored in a pond until its recovery by UAU staff in August.

Initial investigations located four dugouts and prehistoric ceramics. Preliminary analysis revealed the presence of Mount Pleasant and Colington ceramic types dating to between 300 BC and AD 1650 (Underwater Archaeology Unit 1986:1–2). These findings were believed to be significant enough to warrant further professional archaeological investigation.

### *The Claggett Survey (1986)*

Early investigations focused largely on the identification and recovery of prehistoric canoes. This changed in May 1986 when Steve Claggett of the OSA conducted a controlled artifact collection in the



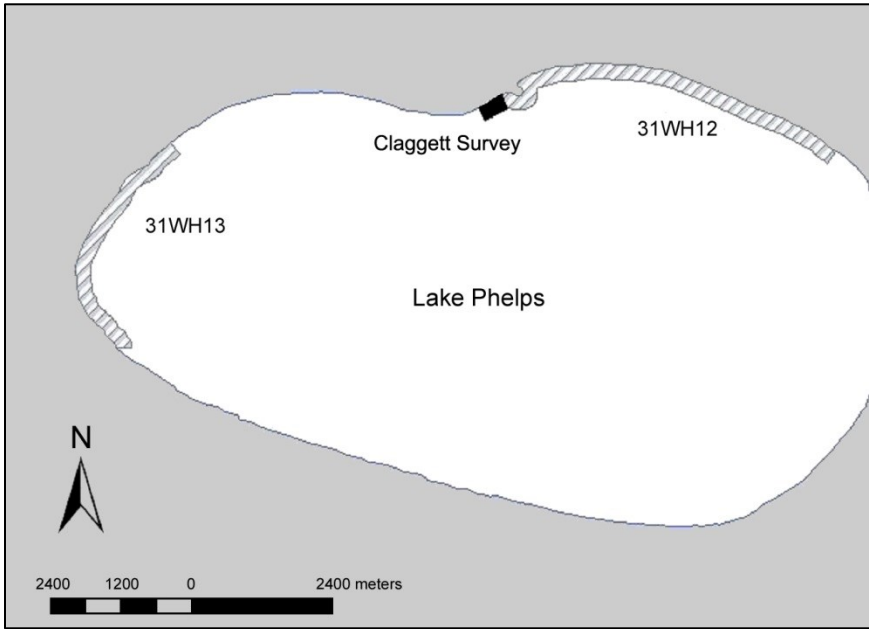


Figure 3. Location of the Claggett survey.

vicinity of 0001PHL and 0002PHL (Figure 3) for the purpose of identifying and collecting cultural material associated with the canoes. The survey established a 50-x-50 m grid system running 400 m along the shore and 200 m south into the lake (Figure 4). Depending on the local configuration of the shoreline, individual cells were partially or completely submerged or on shore. Canoe 0002PHL was located in the survey area and 0001PHL was located southwest of the grid. Artifact context was recorded by grid cell. Analysis was done by Dr. David Phelps at ECU. Artifacts are curated in the OSA facility in Raleigh, North Carolina. This two-day survey recovered 340 temporally diagnostic ceramic artifacts dating from the Early Woodland through the Late Woodland periods.

#### *The UAU/Morris Survey (1986)*

In the fall of 1986, Kaea Morris, a M.A. candidate from the program in Maritime History and Underwater Research at ECU, conducted investigations aimed at locating additional canoes. UAU staff aided Morris in these efforts. This three-week project consisted of survey and excavation.

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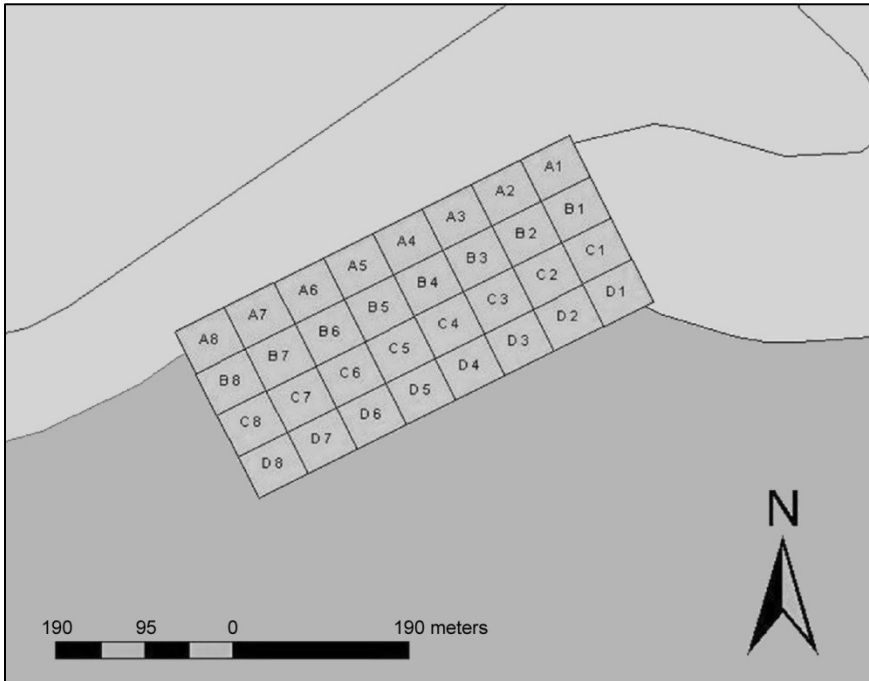


Figure 4. The Claggett survey grid.

Aerial photos were used to identify portions of the lake where canoes had been discovered. This information helped define the survey area. The survey field was then divided into 500-x-500-ft sections to be walked in 5-ft to 10-ft transects parallel to the shore. Canoes found were marked with a buoy and recorded with an electronic distance monitor on the bow and the stern. Canoes were documented through mapping, measurements, drawings, and photographs. Cultural material was also collected and recorded.

During the summer of the next year Morris continued to work at the lake, participating in additional surveys conducted by David Phelps of ECU. The Morris and Phelps surveys identified 19 new canoes. Radiocarbon dates for the canoes range from 2430 BC to AD 1400. Artifacts collected during the Morris survey were brought to ECU for analysis by Phelps and later sent to OSA for curation (Morris 1986:1–5). Unfortunately, no thesis was generated from this survey, leaving little available data on artifact provenience.

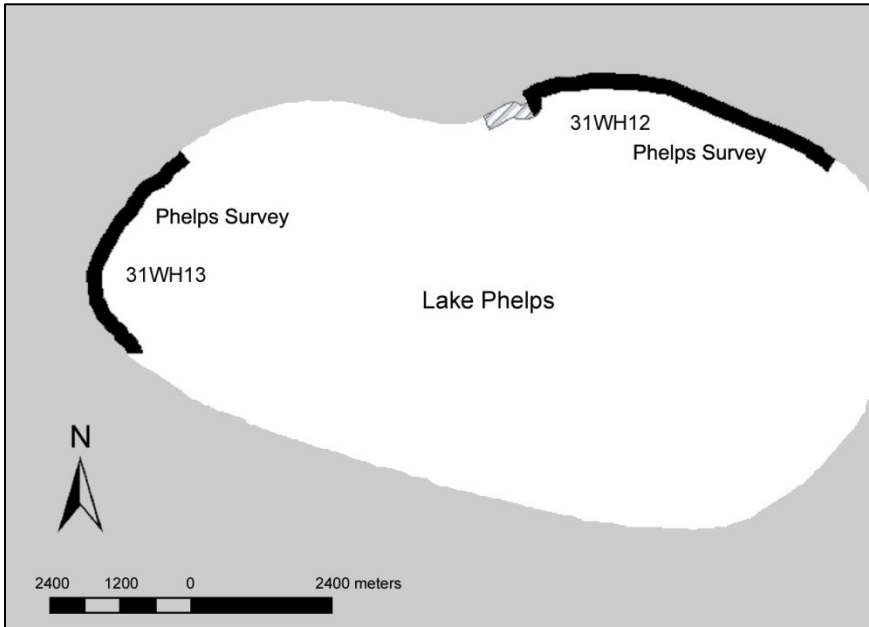


Figure 5. Location of the Phelps survey.

### *The Phelps Survey (1987)*

In the summer of 1987 David Phelps conducted a shoreline survey on the eastern half of 31WH12 and a reconnaissance survey on the western shore at 31WH13 (Figure 5) to determine if modern artifact concentrations could be used to identify eroded or partially intact prehistoric sites (Phelps 1987a:1).

The survey area began at the park's boat access ramp on the north shore and ran west almost 5,000 meters. The survey field was divided into 47 transects measuring 100 m wide by 50 m long. Transects were designated (from east to west) A through UU. Crews of three students and a supervisor walked transects perpendicular to the shore in 3 m rows. Artifacts were collected and recorded according to the section in which they were found, or according to cluster in high-density transects (Phelps 1987a:2). Although there is no mention of the collection criteria, the large number of non-diagnostic artifacts in the extant accession indicates that this was likely a total-collection survey.

Lithic artifacts were recorded by functional type, such as point, hammerstone, gorget, or grinding stone. Temporally diagnostic artifacts,

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Table 1. Ceramic Types by Temper.

Ceramic Type	Temper
Marcy Creek	Steatite
Cashie	Pebble
Croaker Landing	Clay/Sand
Hanover	Clay
Deep Creek	Sand
Mount Pleasant	Sand/Pebble
Colington	Shell
Mockley	Shell

primarily points, were measured, drawn, and classified according to the regional typology (Phelps 1982:1–2, 1983:1–49). Ceramic artifacts were analyzed by temper, surface treatment, and vessel portion when possible. Temper was used as the primary means of temporal classification (Table 1). This typology includes two shell-tempered series, Colington and Mockley. The differences between these series were based on surface treatment. All fabric impressed, shell-tempered wares were called Colington. Net or cord impressed sherds were designated as Mockley, except when they were found with an abundance of Colington sherds, in which case they were designated as Colington (Phelps 1987b).

Of the 1,777 artifacts collected from 31WH12, 1,127 were temporally diagnostic. Site 31WH13 returned 366 artifacts, 349 of which were temporally diagnostic. Analysis revealed these materials dated from the Late Paleoindian through the Late Woodland periods on the northern shore and from the Early Woodland through the Late Woodland periods on the western shore.

Phelps integrated his survey data with the Claggett, Morris/UAU, and Lake Phelps general collection material in an effort to generate a cultural chronology for the lake. Information gathered from the controlled surveys was also used to create a distribution map with zones of activity to help direct future research (Phelps 1987a:2, 1987c, 1987d). This work resulted in the creation of a brief culture history which appeared in a pamphlet for Pettigrew State Park (Phelps 1996).

### *The National Geographic Society Survey (1992)*

In September 1992, the National Geographic Society (NGS) sponsored a project using ground penetrating radar (GPR) to locate and examine new and previously recorded canoes (Wilde-Ramsing 1992). UAU staff assisted in the investigation. Stakes and string lines were

used to mark off two 10,000 ft<sup>2</sup> survey areas next to the shoreline. Anomalies were marked and examined with metal probes and, in some cases, an induction dredge. The survey returned mixed results. Known canoe locations were clearly defined by GPR. However, due to the complexity of the lake bed sediments, a number of false readings also were returned (Wilde-Ramsing 1992).

*The Lawrence and Mathis Survey (2002)*

Richard Lawrence of the UAU and Mark Mathis from OSA visited Pettigrew State Park on October 9, 2002, to examine prehistoric ceramic sherds reported at 31WH12. Lake levels had again dropped due to drought, causing the shoreline to become exposed. Lawrence and Mathis walked 250 m of shoreline between the Phelps and Claggett survey areas and found six ceramic clusters (Lawrence 2002). The locations of the clusters were recorded with a global positioning system (GPS) unit (Lawrence 2002). The artifacts were sent to the OSA curation facility in Raleigh where they were analyzed, recorded, and curated under the accession number 22.636. OSA specimen catalogues reveal no diagnostic artifacts from this collection. On October 10, 2002, Lawrence and Mathis returned to the lake to re-locate canoes 5, 6, 7, 8, 9, 14, and 16. These canoes could not be found at their recorded locations, and it is believed that they were buried beneath sediment (Lawrence 2002).

*The Curci Survey (2004)*

In 2004 Jessica Curci, an ECU Coastal Resource Management PhD student, engaged in an investigation with the UAU to relocate and uncover existing canoes and to undertake a morphological analysis. The UAU was also interested in examining the physical condition of the canoes to determine if burial was an appropriate means of preservation. A GPS unit was used to relocate 10 canoes based on their 1986 coordinates (Lawrence 2004). Canoe 13 was partially uncovered, examined, recorded, and measured to complete the examination left unfinished in 1986. Four canoes could not be found (Lawrence 2004). A visual inspection of those that could be located determined that they were in good physical condition (Curci 2006).

*The UAU Revisit of 31WH12 (2008)*

In June 2008, UAU employees visited the lake to determine the impact of low water levels on the canoes. Five canoes were examined and two were determined to be at risk of potential deterioration resulting from exposure to the air. All other canoes were considered to be safe

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from exposure. Sandbags were placed around the at-risk sections of the canoes as an emergency measure. While at the lake, a portion of the Claggett survey was re-examined. Twenty-one ceramic sherds, two lithic artifacts, and a portion of a steatite bowl were recovered. The artifacts were sent to OSA for analysis and were curated under the accession number 28.660. Temporally diagnostic artifacts dated to the Early Woodland and Middle Woodland periods.

### *Site 31WH12 Re-Inspection (2008)*

The low water levels at Lake Phelps persisted into the fall of 2008, resulting in the discovery of prehistoric artifacts on the lake bed by park officials and visitors. Officials from the North Carolina Division of Parks and Recreation, OSA, ECU, and Pettigrew State Park visited the north shore of the lake to investigate. Five hundred ninety-three artifacts, 254 of them temporally diagnostic, were recovered during the inspection. The presence of cultural material was significant enough that Pettigrew State Park officials requested that further work be done.

### *The Pierce Survey (2009)*

In 2009, a research project was undertaken to synthesize the available data on the archaeological investigations of the prehistoric use of Lake Phelps. An analysis of the 1985 through 2008 data revealed that there was a section of 31WH12 that had yet to be surveyed. To address this, a shoreline survey was conducted in October of 2009. The survey field covered 285 m of shoreline between the western boundary of the Phelps 1987 survey and the eastern boundary of the 1986 Claggett survey.

A crew of five walked 19 transects on 3-m intervals 50 m into the lake. Transects were labeled A through S (east to west). The shoreline consisted of swamp with sand deposits, thick mud, and dense undergrowth which restricted access and visibility. For this reason, the survey area started at the water's edge and moved south into the lake. The shore area that was visible was inspected, although little material was recovered from these sections. The rest of the survey was conducted in up to 50 cm of water. Artifacts and artifact clusters were flagged and collected as they were found. This was a total-collection survey.

All material was returned to the Phelps Archaeological Laboratory at ECU where the collection was analyzed. The survey recovered 247 artifacts, 219 of which were temporally diagnostic. Diagnostic artifacts dated to the Early Woodland, Middle Woodland, and Late Woodland

**Table 2. Ceramic Artifacts from Lake Phelps.**

Ceramic Type	31WH12	31WH13	Total
Deep Creek	1,559	92	1,651
Marcy Creek	1	0	1
Mount Pleasant	825	252	1,077
Mockley	8	0	8
Hanover	73	1	74
Colington	201	4	205
Cashie	20	0	20
Croaker Landing	102	0	102
Unknown	2,578	6	2,584
Total	5,367	355	5,722

**Table 3. Lithic Artifacts from Lake Phelps.**

Lithic Artifact Type	31WH12	31WH13	Total
Soapstone	16	0	16
Hardaway Projectile Point	1	0	1
Savannah River Projectile Point	2	0	2
Kirk Corner-Notched Projectile Point	2	0	2
Triangular Projectile Point	4	0	4
Unidentified Projectile Point	3	0	3
Gorget	6	0	6
Triangular Blade	1	0	1
Other Blade	1	0	1
Hammerstone	14	6	20
Grinding Stone	8	1	9
Core	9	1	10
Spall	4	2	6
Other Tools	25	1	26
Total	96	11	107

periods. There were no prehistoric canoes associated with this survey (Pierce 2010:30, 45).

### **Data Re-analysis**

With the completion of the 2009 survey the entire prehistoric Lake Phelps dataset, 5,829 artifacts and 23 canoes, was re-analyzed (Tables 2, 3, and 4). Ceramic vessel fragments, soapstone bowl fragments, atlatl weights, and stone tools make up the artifact assemblage from Lake Phelps. This collection contains 3,069 temporally diagnostic artifacts, consisting of ceramic artifacts and lithic point types. Each is considered

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Table 4. Uncorrected Radiocarbon Dates for Lake Phelps Canoes.

Canoe Number	C-14 Date (BP)	C-14 Date (BC-AD)	Archaeological Period
7	4380 ± 70	2430 BC	Late Archaic
9	3230 ± 110	1280 BC	Late Archaic
21	3060 ± 70	1110 BC	Late Archaic
2	2850 ± 60	900 BC	Early Woodland
1	2720 ± 70	770 BC	Early Woodland
17	2090 ± 60	140 BC	Middle Woodland
16	1980 ± 70	30 BC	Middle Woodland
8	1840 ± 60	AD 110	Middle Woodland
11	1790 ± 70	AD 160	Middle Woodland
5	1760 ± 60	AD 190	Middle Woodland
19	1740 ± 60	AD 210	Middle Woodland
6	1729 ± 60	AD 230	Middle Woodland
15	1630 ± 60	AD 320	Middle Woodland
4	1610 ± 60	AD 340	Middle Woodland
20	1580 ± 50	AD 370	Middle Woodland
10	1530 ± 60	AD 420	Middle Woodland
18	750 ± 50	AD 1200	Late Woodland
13	560 ± 60	AD 1390	Late Woodland
3	550 ± 60	AD 1400	Late Woodland
12	Not Dated	Not Dated	Unknown
14	Not Dated	Not Dated	Unknown
22	Not Dated	Not Dated	Unknown
23	Not Dated	Not Dated	Unknown

representative of distinct prehistoric periods. The definitions of diagnostic artifacts and their associated temporal period are listed in Table 5.

Hanover series ceramics, while present in the collection, have been omitted from this list even as they can be considered temporally diagnostic. Of the four surveys which recovered Hanover ceramics, three were conducted before the definition of Hanover I and Hanover II was developed. Recent re-analysis of the Hanover series draws a distinction between Hanover I, which is placed in the Middle Woodland period, and Hanover II, which is placed in the Late Woodland period (Herbert 2003:191). The three surveys conducted prior to this re-analysis did not make this distinction, causing for this series to be omitted from temporal analysis. Hanover ceramics collected during the 2009 investigation were also omitted to provide continuity of analysis with the previous work.



**Table 5. Temporally Diagnostic Artifact Types by Time Period.**

Artifact Type	Prehistoric Period
Hardaway Point	Late Paleoindian/Early Archaic
Kirk Point	Late Paleoindian/Early Archaic
Savannah River Point	Late Archaic
Croaker Landing Ceramics	Early Woodland
Deep Creek Ceramics	Early Woodland
Marcy Creek Ceramics	Early Woodland
Mockley Ceramics	Middle Woodland
Mount Pleasant Ceramics	Middle Woodland
Cashie Ceramics	Late Woodland
Colington Ceramics	Late Woodland

Lake Phelps diagnostics were examined to identify the number of artifacts present during any given prehistoric period. The results showed low artifact counts through the Late Archaic period, an increase in counts in the Early Woodland period and decreasing counts through the Late Woodland period (Table 6). No diagnostic artifacts were present from the Early or Middle Archaic periods. Radiocarbon-dated canoes were also analyzed with all periods showing lower canoe numbers with the exception of the Middle Woodland period.

The spatial distribution of the artifacts was also examined. The Claggett, Phelps, and Pierce surveys on the northern shore recorded the spatial relationship of the artifacts within the larger site of 31WH12. This provenience data allows for the examination of differential distributions of prehistoric material across this portion of the lake.

**Discussion**

The reanalysis of the Lake Phelps data revealed variability in the spatial and temporal distribution of artifacts at the lake. If these distributions are indicative of prehistoric artifact deposition and not a result of other variables such as post-depositional activity or survey sampling issues, then they have the ability to aid in site identification and to provide detailed information on the nature of prehistoric lake use.

Any spatial analysis is reliant on the archaeological record accurately reflecting prehistoric discard patterns, or accounting for subsequent post depositional activities. As the majority of the assemblage has been recovered from the bed of the lake, an active environment, this concern becomes even more of an issue. At Lake Phelps it appears that artifact concentrations are representative of

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Table 6. Artifact and Canoe Counts Per Time Period.

Prehistoric Period	Artifact Count	Canoe Count
Late Paleoindian	3	0
Late Archaic	2	3
Early Woodland	1,754	2
Middle Woodland	1,085	11
Late Woodland	225	3

prehistoric activity at that location for several reasons. Artifacts tend to be recovered in tight concentrations with large areas devoid of cultural material separating them. In many cases artifact concentrations contain multiple sherds from single vessels, often with refits. This serves as an indication that natural forces have not disturbed all of the deposits and some level of site integrity remains (Pierce 2010:53).

The location of artifacts in the lakebed sediments further supports this point. Isolated artifacts are often found on top of a sandy layer, whereas fragmented vessels, complete pots, and artifact concentrations tend to be situated in a clay substrate that exists below the sandy layer. The clay substrate is believed to be the prehistoric lake bed, while the sandy top layer is a more recent deposit. This would indicate that individual artifacts found on the sandy deposit are disturbed, moved, and redeposited, while artifact concentrations found in the clay substrate represent deposits of more intact cultural material (Pierce 2010:53–54).

The Lake Phelps data is limited in what it can tell us spatially. Fine-grained analysis of inter-site use patterns of discrete prehistoric deposits based on artifact distribution is unlikely to provide accurate information. However, an examination of artifact distributions across the lake has the ability to reveal prehistoric site locations and boundaries. This information can be used to assess site selection or preference and to provide information on prehistoric lake use patterns.

Spatial analysis of the cultural material recovered from the Claggett, Phelps, and Pierce surveys revealed four distinct areas of prehistoric use within the larger state designated sites (Figure 6). On the northern shore these locations were delineated by identifying portions of the shoreline exhibiting continuity in artifact distribution and through a comparison of artifact density. Continuity in artifact distribution was determined through an identification of contiguous transects or grids containing cultural material. Artifact density is simply a calculation of artifacts per square meter of survey area. This figure was calculated for each portion

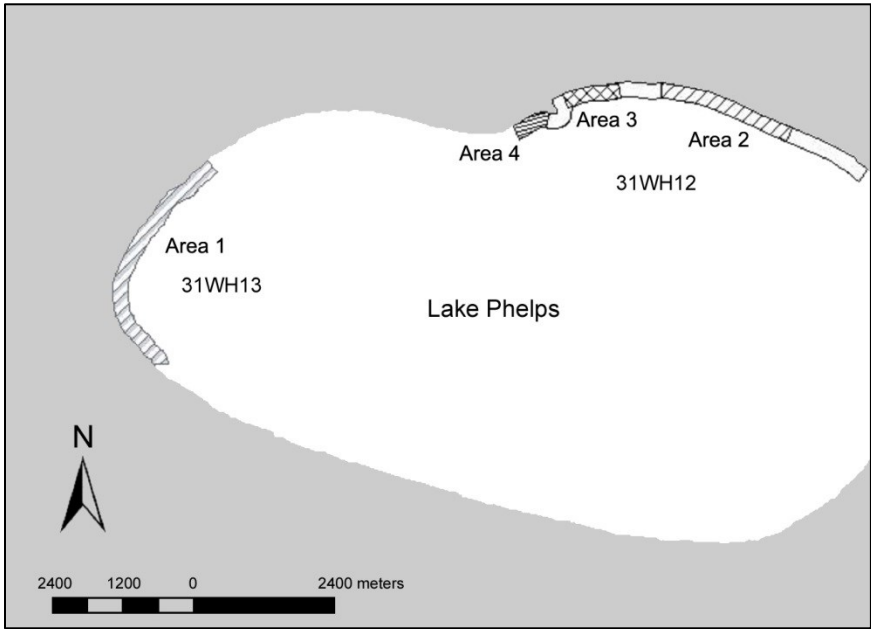


Figure 6. Areas of prehistoric use at Lake Phelps.

of the shoreline exhibiting artifact continuity. These numbers were then compared to artifact densities from noncontiguous artifact bearing transects and grids or those areas that were devoid of cultural material (Table 7). Locations that failed to exhibit continuity in artifact distribution did not return a density higher than .00019 artifacts per square meter. While there is variability in artifact densities between areas of artifact continuity, they still return numbers much higher than the rest of the shoreline. Due to this, portions of the survey field with artifact continuity and relatively high artifact densities were considered likely areas of prehistoric use.

On the northern shore these discrete deposits of archaeological material were labeled Area 2 (Phelps transects L–CC), Area 3 (Phelps transects LL–QQ), and Area 4 (Pierce transects J–S and Claggett Grids 1–6). On the western shore, the survey was conducted by Phelps at 31WH13. There were no notes on divisions within this survey field so the entire site was analyzed as one unit of occupation, Area 1. Although the spatial provenience is large, 31WH13 is the only controlled collection from the western shore so distinctions made from this data can be considered unique to this portion of the lake.

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Table 7. Prehistoric Site Artifact Densities.

Site	Artifact Count	Square Meters	Artifacts per Square Kilometer
31WH12 (Area 2)	991	90,000	0.011
31WH12 (Area 3)	128	30,000	0.0043
31WH12 (Area 4)	565	67,500	0.0084

An examination of temporally diagnostic artifacts and radiocarbon dated canoes point towards variability in the Lake Phelps assemblage through time as well. Unfortunately, a detailed discussion of changes in lake use by prehistoric period is untenable at this time. The entirety of the dataset comes from surface collection, limiting the inferences one can make about social organization, site use, or general subsistence practices. Additionally, only a portion of the lake has been surveyed. The survey of the northern shore is virtually complete, but investigation of the western shore is limited and there has been no work on the southern or eastern shorelines.

The following sections will present the Lake Phelps dataset for each prehistoric period and compare them to the current understanding of contemporary North Carolina Coastal Plain settlement and subsistence strategies. This preliminary discussion is intended as a starting place for future work, with the understanding that as future investigations add to the Lake Phelps assemblage our understanding of prehistoric lake use at this location will continue to evolve.

### *Late Paleoindian/Early Archaic Period (8500 to 6000 B.C.)*

The presence of one Hardaway and two Kirk points indicate that use of the lake began as early as the Late Paleoindian/Early Archaic period. While all three points were recovered from the northern shore, the Hardaway point from Area 2 is the only provenienced artifact from this period. The small number of diagnostics may indicate limited prehistoric use of the lake during this period. However, the possibility that post-depositional activities including collecting may have influenced the sample remains. Still, regional settlement trends throughout the southeast during this period suggest that human groups consisted of small mobile bands that left little in the way of a “footprint” on the landscape (Phelps 1983:24–26). The limited nature of the earliest Lake Phelps assemblage may reflect this type of lake use.

*The Late Archaic Period (3000 to 1000 B.C.)*

The Late Archaic period is represented by two Savannah River points and three radiocarbon-dated canoes. Sixteen soapstone vessel fragments have also been recovered. Traditionally, soapstone has been considered a diagnostic of the Late Archaic period (Griffin 1952:355; Phelps 1996:7). However, the possibility remains that these vessels may have seen use into the Woodland period. For this reason, soapstone is not considered temporally diagnostic in this study. Provenienced artifacts are again associated with Area 2 as are the three canoes. Settlement models for the Late Archaic period envision an increased tendency towards sedentary residence as a result of a refinement of subsistence strategies, allowing for the extraction of large amounts of resources from one location (Phelps 1983:26). While the presence of three canoes may indicate an increase in activity during this period, the limited nature of the Late Archaic period assemblage does not allow for a complete examination of lake use at this time.

*Early Woodland Period (1000 to 300 B.C.)*

There are 1,754 artifacts, 1,081 with known provenience, and two radiocarbon-dated canoes from the Early Woodland period. Provenienced artifacts were recovered from Areas 1, 2, 3, and 4. Areas 1, 3, and 4 did not return any artifacts from previous periods. The lake-wide increase in artifact counts as well as the increase in the number of sites would seem to indicate an intensification of lake use during the Early Woodland period.

The Early Woodland period is believed to have experienced population growth throughout the region. This was accompanied by an increase in the exploitation of aquatic resources by the larger populations. An increase in lake use during this period should not, then, be considered unusual as local populations following regional trends began to intensify their extraction of local resources (Phelps 1983:32).

*Middle Woodland Period (300 B.C. to A.D. 800)*

The Middle Woodland period is represented by 1,085 artifacts and 11 dugout canoes. Lower artifact counts suggest decreased lake use during the Middle Woodland period. The increase in canoe counts to 11, indicating a potential increase in lake use, does not immediately support this conclusion. These conflicting datasets make assessing prehistoric activity at Lake Phelps during the Middle Woodland period difficult. One would expect increased lake use to be represented by an increase in

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artifact and canoe counts, and a decrease in counts if use dropped. Unfortunately, we do not have this correlation, and as the canoes are present the question then becomes where are the “missing” artifacts?

There are a number of possible explanations for the seemingly conflicting data. The explanation could lie in the analysis of the Early Woodland and Middle Woodland period ceramic assemblages. Early Woodland ceramics on the North Carolina Coastal Plain consist primarily of the Deep Creek series while Middle Woodland ceramics generally come from the Mount Pleasant series. Both series contain a sand and grit temper. Mount Pleasant is differentiated from Deep Creek by the increased proportion of granule and pebble-sized particles in the temper. The percentage of sand and grit in the temper shows variability within each series, resulting in an overlap between high-grit Deep Creek ceramics and low-grit Mount Pleasant ceramics. This leaves open the possibility that the “missing” Middle Woodland artifacts are in fact in the collection, misidentified as Deep Creek.

The disparity between artifact and canoe counts may also be a survey sampling issue. Only a portion of the shoreline has been investigated to date, meaning that the Lake Phelps assemblage really only allows for a discussion of prehistoric lake use on the northern and western shores. Sites containing high numbers of Middle Woodland artifacts or canoes dating to previous periods may exist elsewhere on the lake. An expansion of the dataset could alter the interpretation of prehistoric activity and bring clarity to the apparently anomalous Middle Woodland data.

The possibility also remains that the explanation for the Middle Woodland dataset does not lie in analysis or sampling issues. Rather, it may be reflective of settlement practices in the region during this period. On the northern North Carolina Coastal Plain settlement intensified along major trunk streams, estuaries, and on the coast (Phelps 1983:33). This coincided with a shift towards larger aggregated villages which developed as a result of the transition to a sedentary lifestyle and a growth in the importance of domesticates (Ward and Davis 1999:204–205). The larger Middle Woodland period villages were accompanied by a variety of smaller, temporary, special-use sites.

The relatively low number of artifacts in the Middle Woodland period assemblage does not appear to represent large, high density aggregated village sites common throughout the region during this period. It is far more likely that at this time activity at Lake Phelps focused on smaller special use sites. Logistical lake use in this manner

could well explain the drop in artifacts and the rise in canoe counts as site use would have decreased while lake use may have not.

Logistical lake use would focus primarily on the proximity to the resource of interest and the advantages a location would provide (Binford 1980:10–12). Resource-based site selection would not have induced Middle Woodland period groups to revisit and re-occupy known locations. Rather, variables such as access to shell-fish beds, schools of fish, and dry land, all of which can vary by season, would have influenced site selection. The net result would be an increase in small, seasonally occupied sites, many of which may have left an ephemeral archaeological signature. In some instances canoes may be the only remains from these sites were the dugouts were manufactured, used, and/or abandoned.

Regardless of the nature of prehistoric activity during this period, the archaeological signature shows that the lake continued to play an important role in the subsistence patterns of the inhabitants of the North Carolina Coastal Plain during the Middle Woodland period.

#### *Late Woodland Period (A.D. 800 to 1650)*

There are 225 Late Woodland period artifacts and three canoes in the Lake Phelps collection, a sharp decrease from the previous period. All four prehistoric areas of occupation continue to see use, although artifact counts at each location drop from the Middle Woodland period.

Phelps (1983:38–40) finds that by the Late Woodland period ceramic distributions mark the social boundaries of distinct groups. The majority of the Late Woodland assemblages come in the form of Colington ceramics, a series associated with Algonquin speakers. This likely indicates that Lake Phelps was primarily occupied by Algonquin-speaking people during the Late Woodland period. Cashie ceramics are also found at the lake in limited numbers. The Cashie series is commonly associated with the Tuscarora (Phelps 1983:44). The presence of Cashie ceramics may indicate a limited use of the lake by the Tuscarora or the existence of trade relations between the two groups.

The Late Woodland period saw the continuation of the shift towards larger, sedentary villages that began in the Middle Woodland period (Ward and Davis 1999:210–212). This process was accompanied by changes in subsistence patterns around AD 1000 with the introduction of maize agriculture. Archeologically, the Lake Phelps assemblage is not reflective of these large villages. However, much like the Middle

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Woodland period, Late Woodland period villages were accompanied by a number of smaller logistical sites. At Lake Phelps the drop in artifact and canoe counts suggests a decrease in activity, likely as individuals relocated to areas more conducive to agriculture. Lake use during this period was likely logistical.

### Conclusion

The discovery in 1985 of canoes, ceramics, and lithic material at Lake Phelps resulted in 25 years of archaeological investigations on the prehistoric occupation of the lake. Reports produced and cultural material collected by these investigations are held in a variety of locations across North Carolina including Raleigh, Wilmington, and Greenville. A synthesis of the complete Lake Phelps dataset had never been attempted until now. This project examined the field methods, lab methods, and results from previous work and re-analyzed the various collections, resulting in the identification of spatial and temporal variation in artifact distributions. These patterns were used to identify discrete locations of prehistoric activity at the lake, allowing for a preliminary discussion on the nature of lake use through time.

This analysis is based on the research to date, which unfortunately, comes from only a few sites restricted to the northern and western shores. As only a relatively small portion of the shoreline has been surveyed, it is possible that other large sites remain undiscovered.

The areas chosen for survey were picked due to reports by lake visitors and park staff of the presence of canoes and artifacts at these locations. There are two possible reasons for the early reports in these areas and not others. The first is that these are the only locations where prehistoric activity occurred, and thus the only places where cultural remains are to be found. This seems unlikely as small numbers of artifacts along the southern shore have been recorded (Holley 1989:54). A more feasible scenario involves modern use of the lake. The western shore is relatively well developed, with houses, roads, and piers, when compared to the rest of the lake. The northern shore is maintained and operated as Pettigrew State Park by the North Carolina Division of Parks and Recreation. Walking trails, bike paths, piers, and boat launches can be found along the north shore. These levels of development and methods of use all increase access and activity in these areas, leading to an increased possibility of site discovery.

The southern and eastern shores remain relatively undeveloped, which limits modern access and use of the area, and decreases the



instances of artifact and site discovery. When taking this into account, it seems likely that modern human activity at Lake Phelps has strongly influenced site discovery. This leaves open the possibility that our current understanding of site distribution at the lake may not be reflective of the prehistoric occupation of the area. As such, any further investigation of the lake should first focus on completing a survey of these underrepresented areas.

Additionally, Holley (1989:53) indicates that water levels at Lake Phelps have been dropping since prehistory, leaving exposed four prehistoric shorelines. While some of these predate human occupation, others do not. An examination of these ancient shorelines could reveal additional sites that can provide important spatial and temporal information on the occupation of Lake Phelps.

The completion of a lakeshore survey in addition to archaeological investigations of the prehistoric shorelines would enable a comprehensive overview of the spatial and temporal prehistoric occupation of Lake Phelps to be completed. With this done, a revised settlement and lake use model could be developed.

The model generated by the expanded survey would need to be placed within a stratigraphic context. This could be done through careful placement of excavation units. Unfortunately, there are some complications to be dealt with. The western shore has been completely developed, and is now lined with modern houses, the construction of which may have damaged the stratigraphy in the area. On the northern shore, the water's edge is met immediately by swamp, making excavation difficult. However, as the historic lake shore lies further inland, excavations in the vicinity of Areas 2, 3, and 4 on dry land beyond the swamp may prove viable. Additionally, the eastern and southern shores of the lake consist of beach and dry land. Should survey reveal occupational areas at these locations, excavations could prove informative. Excavations would allow for the lake's cultural sequence to be further refined and validated.

Models involving settlement patterns and prehistoric use of Lake Phelps developed from this work would also need to be tested. This could be accomplished by comparing the Lake Phelps settlement distribution and artifact assemblage with those of other lakes in the area. Lake Mattamuskeet, Lake Pungo, and New Lake are all located on the Albemarle Peninsula near Lake Phelps. They are good examples of the pocosin lakes found throughout the region, and all have exhibited some level of prehistoric occupation (Holley 1989:2). The Lake Phelps

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settlement model can be used to guide investigations at these and other lakes where little work has been done. Likewise, a comparison of the settlement distribution and artifact assemblages between these lakes can attest to the accuracy of the models created for Lake Phelps.

This paper presents a synthesis of the Lake Phelps data to date. The analysis of this data provides a starting point for the development of a settlement and subsistence model for the area. Moving forward, future work including the incorporation of new lakeshore surveys, archaeological investigations of archaic shorelines, and the investigation of prehistoric human occupation at nearby lakes has the ability to add to and update this work in order to contribute further to our understanding of prehistoric life ways at Lake Phelps and on the North Carolina Coastal Plain.

### Notes

*Acknowledgments.* I would like to thank the staff of Pettigrew State Park, especially Park Superintendent Doug Leguire, for providing access to the site, logistical support, and valuable insight into the project. I am indebted to Aimee Bouzigard, James Leamy, Dawn Luker, and Joey Roberts for providing their time and expertise to the Lake Phelps survey. I would also like to thank the Department of Anthropology at East Carolina University for providing laboratory space and logistical support for the analysis phase of this project. I am grateful to Dr. Anthony Boudreaux, Dr. Charles Ewen, Dr. Benjamin Saidel, Dr. Linda Wolfe, and Mr. Gene Peacock for providing insight and guidance as I wrote the Master's thesis which provided the basis for this article. Finally, I thank Dr. Rick Weathermon for providing comments on this manuscript.

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# **A CASE OF A MISSING HOUSE AND KITCHEN: THE REDISCOVERY OF THE WOOTEN-MARNAN RESIDENCE AT COLONIAL BRUNSWICK TOWN**

by

**Jennifer L. Gabriel**

## **Abstract**

Recent archaeological investigations at Brunswick Town/Fort Anderson State Historic Site by William Peace University focused on Civil War-era barracks behind Battery A, but also uncovered two unexplored colonial-era households. While one of these was recently defined by Gabriel (2012a, 2012b), this study focuses upon the second colonial structure known as the Wooten-Marnan House. Located on town lot 344, this home was owned by a series of individuals, which included sail maker Christopher Wooten, mariner Thomas Marnan, and carpenter Jonathan Caulkins. While excavations in this area revealed no *in situ* architectural evidence of the Wooten-Marnan House, pattern analysis of recovered artifacts from the yard space around the house and historical records both indicate the presence of a colonial home and kitchen.

In 2009 and 2011, archaeological field schools from William Peace University conducted the first scientific, systematic excavations in Brunswick Town/Fort Anderson State Site (31BW376\*\*12) since Stanley South completed his development of the site in the late 1960s. The research design of the field school was primarily aimed at exploring a roughly one-acre tract of land in the undeveloped, northern area of the site behind Battery A (Figure 1), where a number of Civil War-era barracks features have been previously noted. The relocation and excavation of these barracks achieved the overall goal of the field schools, and provided greater architectural, material, and historical perspective, as well as interpretive information for the State Historic Site, on the soldiers' lives and activities at Fort Anderson (Beaman and Melomo 2011; Melomo and Beaman 2012).

However, as Fort Anderson was constructed over a portion of colonial-era Brunswick Town, within this same area two distinctive locations yielded subsurface stratigraphy that contained substantial quantities of colonial-era artifacts. On the eastern end of the area, one of these artifact concentrations and associated architectural features was

## THE WOOTEN-MARNAN RESIDENCE

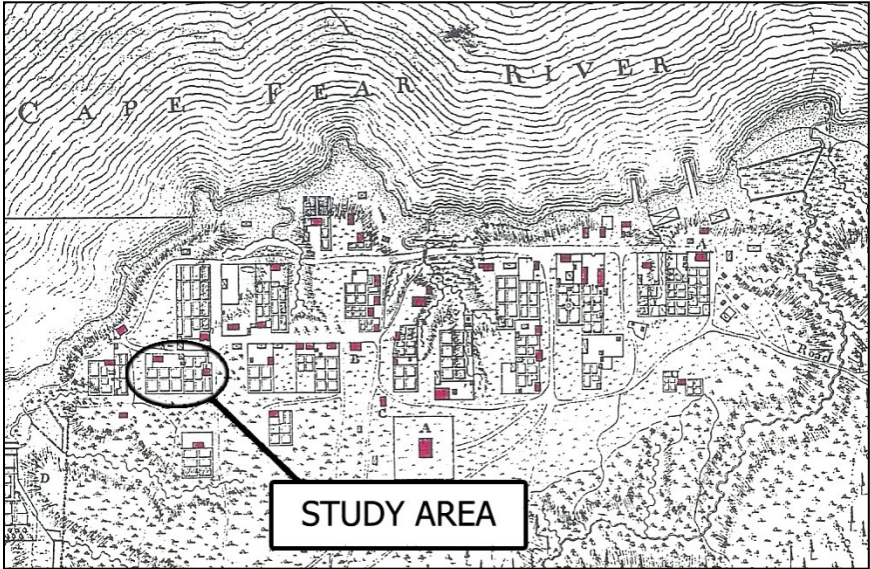


Figure 1. Excerpt from the *Plan of the Town and Port of Brunswick* by Claude J. Sauthier (1769), commissioned by Royal Governor William Tryon and illustrating the colonial port town as it appeared in 1769. The lots associated with this study are marked.

defined as a high-status household owned by George Moore, among others (Gabriel 2012a, 2012b).

This study centers on the second concentration of colonial artifacts from the opposite, western end of the investigated area. Correlations with the location of colonial town lot 344, the 1769 Sauthier map of Brunswick Town, and historical deeds indicate that the lot once contained a residence and detached kitchen. Though he did little more than explore the area, South (1959, 1962) christened this household the Wooten-Marnan House for its former owners. The 2009 and 2011 excavations by William Peace University students yielded large quantities of artifacts apparently related to the Wooten-Marnan house and detached kitchen, but no *in situ* architectural features were found of either structure.

This brief study seeks to quantitatively analyze the colonial-period artifacts recovered during excavations within the area where the Wooten-Marnan house and kitchen should be located. Due to the lack of architectural remains, South's Carolina Artifact Pattern (1977) was primarily used to identify the function of the missing structures associated with the artifact assemblage. It is argued, even without

architectural remains, that the recovered artifact frequencies indicate this area is where the Wooten-Marnan house and kitchen once stood.

### **Historical and Archaeological Background of Brunswick Town**

Brunswick Town was a colonial-era port town located along the western banks of the Cape Fear River just south of present day Wilmington. Maurice Moore, a prominent South Carolinian from the Goose Creek area, received a land grant in 1725 and founded the town in 1726. With him came several notable members of South Carolina society, including his brother Roger, who sought to further develop their own social, financial, and political positions. Together, these and other men owned many of the first residences in the town and helped to establish the town as the major trans-Atlantic, deep-water port for the export of naval stores products to England, other developing colonies, and the British West Indies.

Brunswick Town's initial success was relatively short lived, as a series of unfortunate events befell the town. As a result of a long-standing trade rivalry between England and Spain, Brunswick was attacked by Spanish privateers, which resulted in major damage to the town in 1748 (Lee 1952:237). A renewed florescence came to the town in the 1750s and 1760s, when Royal Governors Arthur Dobbs and William Tryon resided there. In September 1769, a terrible hurricane swept through the region, which caused the disuse and abandonment of a number of heavily damaged structures, including the courthouse (Beaman and McKee 2011:101-107). Raids by British troops and local Tory activity during the American Revolution resulted in several town structures being burned. The majority of individuals who fled for the safety of nearby Wilmington never returned. By 1776, the town was mostly deserted of residents, and as a result, lost its formerly prominent social and political influence in the region (Lee 1952:244-245).

The ruins of Brunswick Town lay forgotten until 1862, when Confederate military officials scouted the area in search of an ideal location to build earthen defensive works to help aid in the protection of the Cape Fear River and Wilmington. Construction of Fort Anderson, which began in March 1862, would cover, disturb, and in some cases destroy evidence of a number of colonial ruins. In February 1865, following the fall of forts Fisher and Caswell, Fort Anderson came under attack by Union forces. Faced with bombardment from the river and the advancement of Federal forces from Southport, the Confederate forces

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abandoned the fort in the early morning of February 18, 1865 (Fonvielle 1999:9, 20, 82).

After the Civil War, Brunswick Town was largely forgotten until the late nineteenth century. Local historian James Sprunt (1916:105) investigated the ruins at Russellborough and noted the archaeological potential that the site held. However, it would be nearly 50 years before Brunswick Town would be more fully explored and documented.

The wealth of archaeological information that is available today is largely owed to the efforts of three individuals: E. Lawrence Lee, William S. Tarlton, and Stanley A. South. Lee's work began in 1951 with the completion of his MA thesis in History at the University of North Carolina, which focused on the undocumented history and physical aspects of the colonial port town, including a reconstruction of the town's lot plan. In 1955, newly elected Superintendent of Historic Sites in North Carolina, William S. Tarlton, also realized the importance of Brunswick Town and its potential as a public historic site. With the help of Lee, these men would begin the first systematic, scientific explorations of the town by identifying and mapping as many ruins as possible (Lee 1958:2-3).

However, due to Lee's limited time resulting from his commitments as a history teacher at The Citadel, Tarlton then hired Stanley South to develop the site for public visitation. South began work at Brunswick Town on August 1, 1958, and over the course of intermittent investigations and excavations, South would work to identify and map 60 colonial-era ruins, and excavate 23 of them (Beaman et al. 1998:5). The majority of these excavated ruins were located in the central and southern portions of the town that were being developed for visitation. However, South only minimally explored the northern and northwestern section of the town (Beaman et al. 1998:10; South 2010). Since South's departure from the site in 1968, with the exception of select artifact studies from the excavated collections, no other colonial-era households had been explored or documented prior to the William Peace University archaeological field schools in 2009 and 2011.

### **The Wooten-Marnan House and Detached Kitchen**

The Wooten-Marnan House resides on town lot 344. This lot, along with lots 345 and 346, were located just west of a street referred to as "The Alley." As shown in Figure 2, these lots were sold as a group to various owners, and then later split up and sold individually. The first historical record of these lots is from the original land grant to Maurice



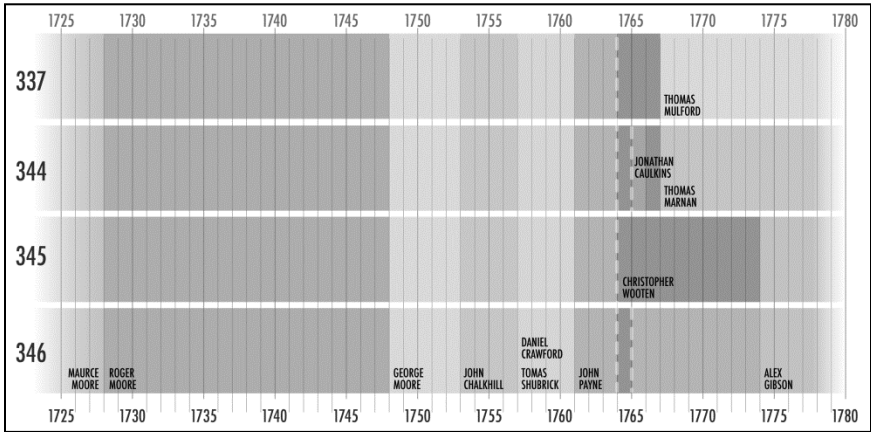


Figure 2. A timeline graphically depicting the changing ownership of town lots 337, 344, 345, and 346.

Moore in 1725. These lots, along with others in the northwestern part of the town, were then sold to Roger Moore, Maurice’s brother, on September 14, 1728. Roger deeded these lots in his will to his son George, who acquired them in 1748 just prior to his father’s death in 1751. George later sold the lots to John Chalkhill, purser of the merchant ship *Scorpion*, on April 14, 1753. Afterwards, the lots were sold to merchants Thomas Shubrick and Daniel Crawford, and finally to John Payne in 1761 (New Hanover County Deeds Book D:43; South 1959:25, 2010:195).

At an unknown point in time, sail maker Christopher Wooten obtained the lots and split them up for sale on July 19, 1764. Here, he sold lot 344 to Jonathan Caulkins, a carpenter, but the lot was returned a short time later. The lot was then sold for the final time to mariner Thomas Marnan on January 27, 1766 (Brunswick County Registry Records, A:81; South 2010:194). It is after these last two owners that Stanley South named lot 344 the Wooten-Marnan Lot. As for lots 345 and 346, they were sold to Alex Gibson for the final time on December 22, 1774, by John Payne and Christopher Wooten.

By 1776, Brunswick Town was nearly completely abandoned (New Hanover County Deeds Book D:43; South 1959:25, 2010:196). There is no documentary evidence these lots were reoccupied following the American Revolutionary War, but as will be discussed below, a small number of pearlware sherds ( $n=49$ ) in context indicate the residence may have been briefly reoccupied in the 1780s and 1790s. Similar evidence of a reoccupation has been recovered in several other households in

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Brunswick Town, including the Newman-Taylor House, Roger Moore House, Nath Moore's Front, Judge Maurice Moore House, and the Public House (Beaman et al. 1998:20). By 1842, these lots were likely totally abandoned as they, along with the remainder of the town, were incorporated into the neighboring Orton Plantation.

Almost a century later, during the American Civil War, this same tract of land that formerly was lots 344, 345, and 346 was used as a location for soldiers' barracks. Archaeological investigations indicate that these barracks were likely temporary quarters for overflow soldiers who arrived at Fort Anderson in January and February 1865 from other captured or destroyed Cape Fear fortifications, such as forts Fisher, Johnson, and Caswell (Beaman and Melomo 2011:58–59; Melomo and Beaman 2012). By June of 1865, with the Civil War ended, Fort Anderson was finally and fully abandoned. Again reincorporated into Orton Plantation, the earthen fortifications over the colonial town stood undisturbed as a silent sentinel for almost a century as a quiet, physical reminder of a divided past.

In the late 1950s, when Stanley South minimally explored the northwestern portion of Brunswick Town that includes the barracks area, he used the 1769 map drawn by Swiss cartographer Claude Joseph Sauthier as a guide. With respect to the location and scaled measurements of period buildings, the Sauthier town maps have been repeatedly found to be as reliable as aerial photographs and the later Sanborn insurance maps (Carnes-McNaughton 1992, 1994; Ewen et al. 2002). Investigations in this undeveloped area of the site focused primarily on the initial identification of structures beneath the ground surface using a steel probe. While some of these features were minimally excavated, others were left undisturbed and simply mapped with a transit upon positive correlation with Sauthier's map (South 2010:191–195, personal communication 2012). The architectural features shown on the Sauthier map are illustrated in Figure 3, and are depicted in South's archaeological base map of the area, shown in Figure 4.

In 2009, William Peace University held an archaeological field school in this area, located behind the Battery A defensive earthwork of Fort Anderson. Even though the main focus of this field school was on the barracks, a number of colonial-period artifacts associated with the minimally explored ruins in the northwestern portion of the town were recovered (Beaman and Melomo 2011:2). The discovery of these colonial-era artifacts prompted the expansion of the subsequent William

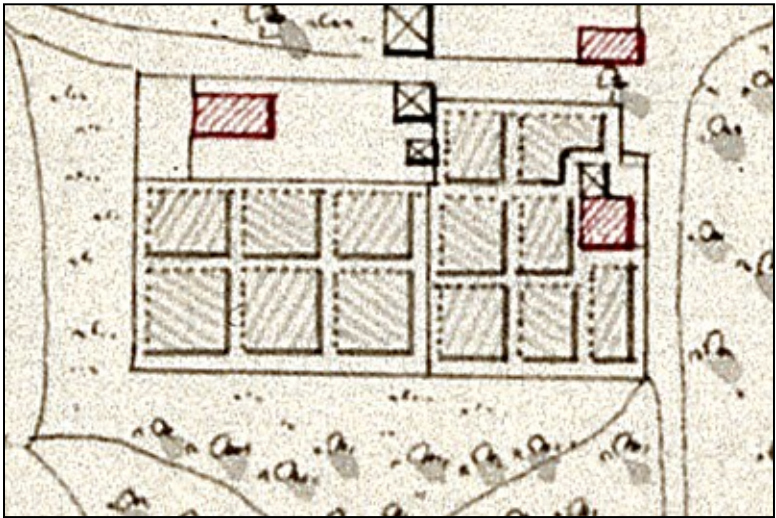


Figure 3. A close-up of Sauthier's *Plan of the Town and Port of Brunswick* showing the area of town lots 344, 345, and 346. Located on the middle of the right side, the structure shaded with red lines and the smaller structure with an 'X' to its rear represent the Wooten-Marnan house and kitchen discussed in this study.

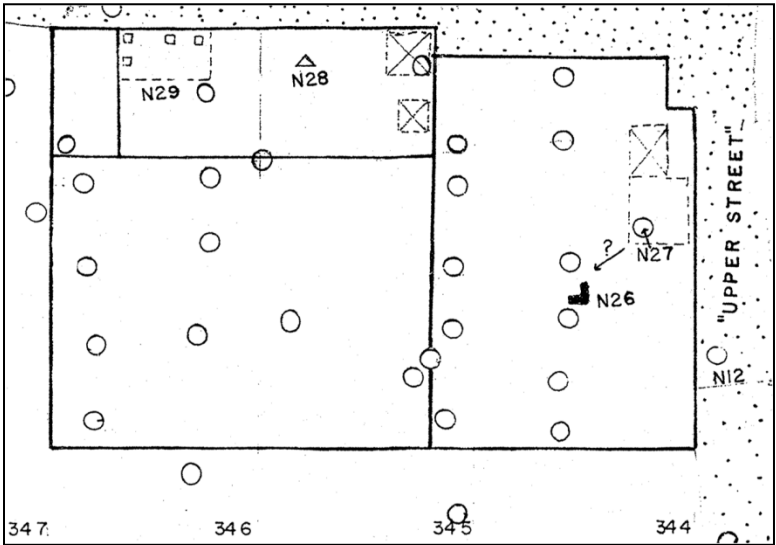


Figure 4. Excerpt from South's 1960 Archaeological Base Map showing the study area at the northern end of Brunswick Town. The circles represent Civil-War era barracks. Based on the physical features identified by South with the Sauthier map overlaid, Feature N27 is a barrack chimney base that should fall within the area of the main Wooten-Marnan House.

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Peace University research design for the 2011 archaeological field school. This expanded research design now included the goal of locating and identifying architectural evidence of the structures associated with the colonial-period artifacts from the previous field season (Beaman 2011: 6–7). Throughout the 2011 field season, students in the William Peace archaeological field school, high school students from the 2011 Summer Ventures in Science and Math Program from UNC-Wilmington, and numerous volunteers continued to recover artifactual remains of the Wooten-Marnan house and kitchen, including fragments of brick and mortar, yet no *in situ* architectural evidence of either structure was identified.

### Methodology and Special Considerations

Even though archaeological investigations have revealed information about the material lives of people who lived on lot 344, very little is known about the Wooten-Marnan House outside of the chain of land deeds. Due to the lack of architectural remains, this study was focused on the quantitative analysis of artifacts recovered from the group of test units around the Wooten-Marnan house and kitchen excavated by William Peace University. Artifacts from both seasons of investigations that correspond with South's original research location of the Wooten-Marnan lot, specifically excavation units 1, 2, 13, 17, 18, 20, 25, 26, 27, and 28, were used for this study. Shown in Figure 5, these units either fall directly where the location of the Wooten-Marnan residence and kitchen are shown on South's base map, or are within the yard/garden space of the structures. As seen in Figure 6, to maximize recovery of data, in both seasons these excavations were conducted by hand with trowels and shovels, and all soil was sifted for artifacts through ¼-inch mesh screens.

Stanley South's (1977:83–139) Carolina Artifact Pattern, which he developed while working on historic sites such as Brunswick Town, was the primary methodology used to understand the function of the structures. To develop the Carolina Artifact Pattern, South began by classifying artifacts typically found on eighteenth-century British colonial sites into functional groups and classes. He then extrapolated from his research normative frequencies that artifact groups should exhibit for a typical British colonial dwelling. By sorting artifacts within an assemblage into South's proposed groups and determining their frequencies, a researcher can begin to understand the function of the structure being studied. If these frequencies deviate from the normative

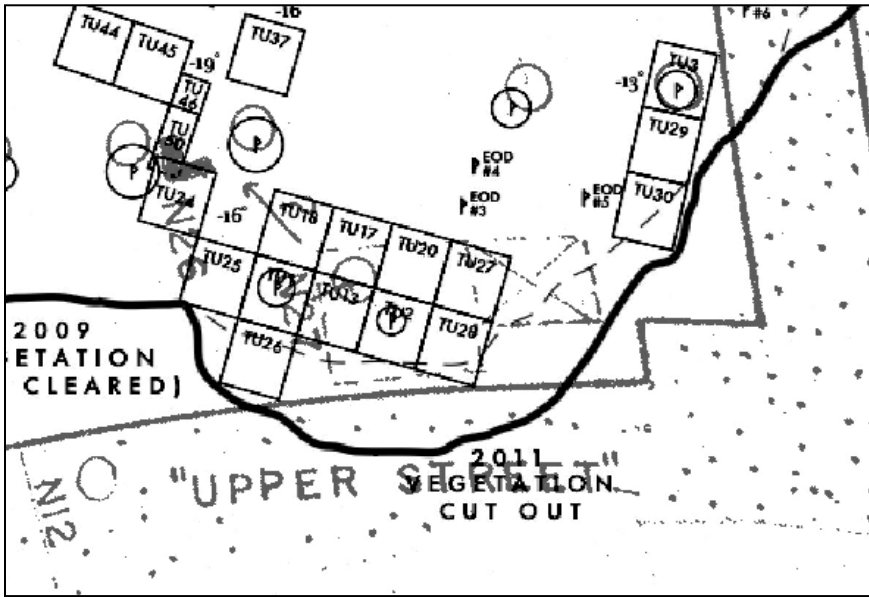


Figure 5. Excerpt from the William Peace University Base Map of Archaeological Investigations in 2009 and 2011 overlaid on South's Archaeological Base Map for the area of Lot 344. The block of test units encompass the area of the Wooten-Marnan House, with only test unit 27 covering part of the kitchen structure.

pattern, the researcher can then begin to recognize specialized activities that may have taken place there (South 1977:83–139).

Prior to discussing the results of this quantitative analysis, it is important to consider the potential problems associated with this study. Brunswick Town/Fort Anderson is an extremely dynamic archaeological site with several occupations ranging from late Paleo-Indian to the Civil War period. Artifacts selected for this study include only those that definitively date to the Colonial period. Most artifacts that were recovered came primarily from stratum B in the barracks area, which has been determined to be associated with the colonial-era occupation. However, due to the multitude of transformational processes that have affected the area of study, including over 150 years of vegetational growth and a sustained bombardment during the Battle of Fort Anderson (cf. Beaman and Melomo 2011:39–40), all colonial-period artifacts from each layer have been included to get as accurate a picture of the Wooten-Marnan House as possible. The same methodology was used to construct the artifact assemblage profile for the George Moore House, the other colonial residence in this area (Gabriel 2012a:57).

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Figure 6. Excavation of test units 1, 2, 13, 17, 18, and 20, with the identified colonial-period stratum B removed, by members of the 2009 William Peace University Archaeological Field School. Based on the overlay map shown in Figure 5, these units represent the excavation of the majority of the main house. No *in situ* architectural remains of the main Wooten-Marnan house or kitchen are visible. One of the Civil War barracks chimney structures, which South labeled N27 on his archaeological base map of the area, is visible in the upper right test unit.

Also, because of the physical closeness of the detached kitchen structure to the residence on the Wooten-Marnan lot, it was often impossible during the excavations and subsequent analysis to confidently attribute recovered artifacts to one of the two structures. On other town lots at Brunswick Town with similar structures, the detached kitchen was set away from the house. This allowed South to consider their associated artifact assemblages separately and to use his Carolina Artifact Pattern to test them accordingly. However, as shown on the Sauthier map in Figure 3, the residence and kitchen on the Wooten-Marnan lot do not follow this typical building arrangement. With no definitive architectural evidence to segregate the main house artifacts from kitchen artifacts, materials from the two structures have been combined to create a single artifact assemblage profile. As this practice of combining multiple structures of different function is something the Carolina Artifact Pattern was not necessarily designed to do, this profile must be approached with some caution.

### **The Wooten-Marnan Artifact Assemblage**

A total of 4,021 colonial-period artifacts were recovered and identified from the 10 test units selected for analysis of the Wooten-Marnan structures on this lot. These artifacts were then organized into the functional artifact groups and classes of South's (1977) Carolina Artifact Pattern, and their relative proportions were calculated (Table 1). The two groups that comprise the highest percentage of artifacts from the total assemblage are the Kitchen group, at 80.1%, and the Architectural group, at 13.6%. The next largest group is the Tobacco Pipe group, with 5.3%, followed by the Clothing group at 0.4%, and the Arms and Activities groups at 0.2% each; the Furniture and Personal groups each comprise about 0.1% of the total assemblage.

Within the Kitchen group, the Ceramics class contains the largest percentage of the assemblage. In total, 2,225 sherds of coarse earthenware, refined earthenware, stoneware, and porcelain were recovered. As illustrated in Table 2, coarse earthenwares comprised the largest majority of the ceramic assemblage (n=1,159, 52.1%), with Delftware (n=641, 28.8%) as the primary variety recovered. With 533 sherds (24.0%), white saltglazed stoneware was by far the most commonly identified type of the total domestic and imported stonewares (29.4%, n=655). Refined earthenwares constituted 11.6% (n=259), with Whieldonware (n=90) as the most frequently recovered type at 2.2%. Porcelain contributed the smallest total amount to the ceramics group with 152 fragments (6.8%), all of which were identified as being Oriental import.

A mean ceramic date was calculated from the ceramic assemblage using South's (1977:210–212) formula and median manufacture dates. While 2,225 total sherds recovered, only 1,796 were used to calculate this date. As many varieties of lead-glazed earthenware and domestic stoneware have been in continuous production and could potentially skew the data, these were not considered. The resulting calculation yielded a mean ceramic date of 1751. Given that Brunswick Town was occupied from 1726 to 1776, our mean ceramic date falls approximately in the middle, which was expected.

The next largest class in the Kitchen group, at 19.0%, was comprised of 765 fragments of ubiquitous, colonial-era olive green wine bottles. Other bottles, including case bottles (n=25) and pharmaceutical type bottles (n=87), were also present. Tumblers (n=34), glassware (n=84), tableware (n=1), and kitchenware (n=1) make up the remainder of the Kitchen group artifacts.

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Table 1. The Artifact Assemblage from the Wooten-Marnan House and Kitchen in Stanley South's (1977) Carolina Artifact Pattern Format.

Artifact Category	Count	% of Total	Artifact Category	Count	% of Total
<b>Kitchen Group</b>	<b>3,222</b>	<b>80.1</b>	21. Buttons	12	0.3
1. Ceramics	2,225	55.3	22. Scissors	0	0
2. Wine Bottle	765	19	23. Straight Pins	0	0
3. Case Bottle	25	0.6	24. Hook & Eye Fasteners	1	< 0.1
4. Tumbler	34	0.8	25. Bale Seals	0	0
5. Pharmaceutical Bottle	87	2.2	26. Glass Beads	1	< 0.1
6. Glassware	84	2.1			
7. Tableware	1	< 0.1	<b>Personal Group</b>	<b>3</b>	<b>0.1</b>
8. Kitchenware	1	< 0.1	27. Coins	0	0
			28. Keys	0	0
<b>Bone Group</b>	<b>261</b>	<b>n/a</b>	29. Personal Items	3	0.1
9. Bone Fragments	261	n/a			
			<b>Tobacco Pipe Group</b>	<b>215</b>	<b>5.3</b>
<b>Architecture Group</b>	<b>548</b>	<b>13.6</b>	30. Tobacco Pipes	215	5.3
10. Window Glass	480	11.9			
11. Nails	32	0.8	<b>Activities Group</b>	<b>6</b>	<b>0.2</b>
12. Spikes	15	0.4	31. Construction Tools	0	0
13. Construction Hardware	16	0.4	32. Farm Tools	0	0
14. Door Lock Parts	5	0.1	33. Toys	0	0
			34. Fishing Gear	0	0
<b>Furniture Group</b>	<b>2</b>	<b>&lt; 0.1</b>	35. Stub-Stemmed Pipes	1	< 0.1
15. Furniture Hardware	2	< 0.1	36. Colonoware	1	< 0.1
			37. Storage Items	1	< 0.1
<b>Arms Group</b>	<b>8</b>	<b>0.2</b>	38. Ethnobotanical	2	< 0.1
16. Musket Ball, Shot, Sprue	5	0.1			
17. Gunflints, Gunspalls	1	< 0.1	39. Stable and Barn	1	< 0.1
18. Weapon Parts	2	< 0.1	40. Misc. Hardware	0	0
			41. Other	0	0
<b>Clothing Group</b>	<b>17</b>	<b>0.4</b>	42. Military Objects	0	0
19. Buckles	0	0			
20. Thimbles	0	0	<b>Total</b>	<b>4,021</b>	<b>100</b>
			<b>(minus Bone Group)</b>		

At 13.6%, the Architectural group contains a total of 548 artifacts and is the second largest group. The majority of these artifacts were shards of window glass (n=480, 11.9%) and wrought nails (n=32, 0.8%). Wrought nails longer than six inches, or spikes, represented 0.4% (n=15). All artifacts in the Construction Hardware class were fragments of delftware chimney tiles. Two different distinct patterns of decorative tiles were noted: pastoral scenes with blue daisy dot corners (n=12; Figure 7) and pastoral scenes with purple daisy corners (n=4). While it is not known if the different color sets with the same daisy corner motif



Table 2. The Kitchen Group Ceramic Assemblage from the Wooten-Marnan House and Kitchen.

Material	Type	Count	% of Total
<b>Coarse Earthenware</b>		<b>1,159</b>	<b>52.1</b>
	Lead Glazed (Buckley)	9	0.4
	Lead Glazed (North Devon Gravel Tempered)	6	0.3
	Lead Glazed (Plain)	359	16.1
	Lead Glazed (Slipware)	24	1.1
	Lead Glazed (Staffordshire)	115	5.17
	Tin Enameled (Delftware)	641	28.8
	Olive/Oil Jar	5	0.2
<b>Refined Earthenware</b>		<b>259</b>	<b>11.6</b>
	Creamware	82	3.7
	Green Glazed Creamware	19	0.9
	Jackfield	90	4
	Pearlware (in Level B context)	19	0.9
	Whieldonware	49	2.2
<b>Stoneware</b>		<b>655</b>	<b>29.4</b>
	Brown Saltglazed (British)	3	0.1
	Brown Saltglazed (Domestic)	14	0.6
	Gray Saltglazed (Domestic)	32	1.4
	Nottingham	2	0.1
	Rhenish Blue and Gray	24	1.1
	Scratch Blue Saltglazed	47	2.1
	White Saltglazed	533	24
<b>Porcelain</b>		<b>152</b>	<b>6.8</b>
	Oriental	152	6.8
<b>Total</b>		<b>2,225</b>	<b>100</b>

were used together around a single hearth or separately, these patterns have been noted at other ruins in Brunswick Town (Beaman 1997:26, Figure 4). Finally, five fragments of a door lock were recovered (0.1%).

While not counted in South's Carolina Artifact Pattern as a class of artifacts, it is noteworthy that a large quantity of colonial-era bricketage with oyster shell mortar, portions of 31 roofing slate tiles, and fragments of horse hair plaster were recovered in these excavations. Due to the various settings around households where excavations occur, such as those of different sizes and constructions (e.g., brick versus ballast-stone foundations), still extant structures, or destroyed foundations with extensive brick crumble, the occurrence of such remains is not a reliable measure for establishing a behavioral pattern such as the Carolina Artifact Pattern. As such, they are not counted or considered in this



Figure 7. Two tile fragments with the “Daisy Corner and Dotted Border” decorative motif recovered from the Wooten-Marnan House (at top). As shown in the image of tiles from Prospect Hall and the Public House (at bottom), when tiles with corner designs are placed together, a singular corner design becomes part of the larger decorative pattern.

study. However, it is important to mention their presence, especially due to the lack of *in situ* physical remains that relate to the Wooten-Marnan house and kitchen.

The Tobacco Pipe group is the next largest class at 5.3% of the total assemblage. This class is made up of kaolin/ball clay pipe fragments, which include both bowls and stems. A total of 215 such fragments were recovered, of which 90 were pipe bowl fragments. The bore diameter of each pipe stem was measured using Harrington’s (1954) standard method to the 64<sup>th</sup> inch. In total, there were 125 pipe stems, which included 4/64 (n=81), 5/64 (n=40), and 6/64 (n=4) diameters. The pipe stem assemblage was used to calculate dates based on regression formulas by

Binford (1962), Hanson (1971), and Heighton and Deagan (1972), and these produced dates of 1764, 1768, and 1747, respectively.

According to studies conducted by Thomas Beaman, Jr. (2005) and Lauren McMillian (2010), there is no one formula that gives a truly accurate pipe stem date. According to Beaman (2005:86), all pipe stem dating methods performed well when he reanalyzed the assemblage at Brunswick Town and compared the resulting dates to the median dates of occupation of various structures. However, Heighton and Deagan's formula tended to perform slightly better than others. McMillian (2010:72) argues that while Heighton and Deagan's formula tended to perform the best for assemblages within the historic Southeast, this is not the case for all collections of pipes in North Carolina. Both Beaman and McMillian note that while each formula has the ability to produce a good indicator of median occupation, overall each should be used with caution.

The Clothing group is composed of 17 artifacts, or 0.4% of the total assemblage. Buttons (n=12, 0.3%) represented the majority of this group. Based on South's button typology (1964), these include Type 3 (n=1), Type 4 or 16 (n=2), Type 9 (n=1), and possible Type 11 (n=1) examples. Two were unidentifiable due to decomposition. Of South's button types, Type 3 buttons are the most ubiquitous at Brunswick Town, and they have an embossed face with a wooden or bone backing and four-hole fastener design. Type 4 buttons also have an embossed face and bone back, but have an additional brass wire eye for attachment to clothing. South's Type 16 buttons are similar to Type 4, but have a flat disc backing, soldered eye, and crimped rim face. The similarity of these two types can make them difficult to differentiate if the buttons are not well preserved. Buttons that are flat with a well-soldered eye and hand-stamped face design belong to South's Type 9 category. Type 11 buttons look similar to those of Type 9, but are made of molded, cast soft white metal (Noël Hume 1969:91; South 1964).

Also included with the buttons were sleeve links (n=5). These sleeve links were all made of copper alloy, but included various decorative motifs such as translucent or gray glass inserts or an octagonal configuration with an embossed design. Outside of the buttons, two straight pins and one eyelet from a hook-and-eye type fastener were present. Two beads—one a raspberry style (Kidd and Kidd [2012] style WIId1) and one round white opaque (Kidd and Kidd [2012] style Wib)—also were recovered, and they likely were used for clothing decoration.

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The Arms group represents 0.2% of the artifact assemblage with eight total artifacts. Five were musket balls, four of which had measurable calibers (.326, .399, .500, and .520). There was also single chert gun spall for the Gunflints class, and a copper alloy fragment of a gun plate for the Weapon Parts class.

By far the most unique artifact associated with the Arms group, and from the entire assemblage of the household, was a copper alloy fragment of a d-type knuckle bow, a part of the guard from a short sword or dagger. Such an item was considered a weapon that a civilian gentleman may have owned, and many exhibited embellishments such as raised classical figures. Hilt quality was also important in such a weapon, as it reflected an owner's social status. Similar examples from England and France are dated to between 1720 and 1750 (Neumann 1995, 1998:339). As seen in Figure 8, the fragment recovered here shows two figures, a male on one side and a female on the opposite, each surrounded by vegetation; it is interpreted to represent a decorative "Adam and Eve" Biblical motif. Since the traditional classes of South's Carolina Artifact Pattern offer no standard way to classify edged weapons such as swords or daggers, the "Gun Parts" category is expanded to include parts of all weapons, where this unique item has been assigned.

The Activities group represents 0.2% of the total assemblage (n=6). The Ethnobotanical class (n=2, 0.1%) contains two peach pits. One fragment of Brunswick Burnished colonoware was also recovered, as well as a single fragment of stub-stemmed pipe. One artifact, a claw-footed decorative copper alloy hardware piece from horse bridal bit, was assigned to the Stable and Barn Class. A single piece of barrel band fragment in the Storage class was present.

The Furniture group is represented at 0.1% of the total artifact assemblage. This group contains a single class, Furniture Hardware. Only two copper alloy items—a furniture tack and an escutcheon plate—were recovered from this group.

Also at 0.1%, the Personal group is comprised of a three fragments of a British brown stoneware ink well, all likely from the same vessel.

Finally, the Bone group contains 261 fragments of faunal material. While animal bones are important to the overall interpretation of a household assemblage, South did not include the Bone group as part of the calculated percentages in the Carolina Artifact Pattern. This was primarily due the need for specialized analysis, as well as the discard of



Figure 8. A copper alloy d-type knuckle bow, part of the guard from a short sword or dagger. Both sides of the bow are shown to illustrate the decorative “Adam and “Eve” Biblical motif.

animal material not representing the same type of by-product represented in the other groups (South 1977:97). As noted in Table 3, zooarchaeological analysis of the faunal material from the Wooten-Marnan House revealed a small number of species and represented an MNI of only four

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Table 3. Species List from Zooarchaeological Analysis of Wooten-Marnan House and Kitchen (after Compton 2013).

Taxon	Common Name	NISP	MNI	Weight (g)	Biomass (g)
<b>Fossils</b>					
Faviidae	Brain coral and meandrinids	1	-	4.34	-
<b>Turtles</b>					
Testudines	Indeterminate turtle	1	-	0.28	13.48
<i>Terrapene carolina</i>	Eastern box turtle	1	1	0.72	25.38
<b>Mammals</b>					
Mammalia	Indeterminate mammal	149	-	216.86	3,331.01
Artiodactyla (large)	Even-toe ungulates (pig, deer, goat, sheep size)	5	-	6.71	145.90
<i>Sus scrofa</i>	Domestic pig	6	1	7.06	153.73
Ruminantia (large)	Ruminants (deer, goat, sheep size)	2		6.88	149.23
<i>Odocoileus virginianus</i>	White-tailed deer	2	1	5.03	112.57
<i>Bos Taurus</i>	Domestic cattle	30	1	394.92	5,713.11
<b>Other</b>					
Vertebrata	Indeterminate vertebrate	64	-	2.00	-
<b>Total</b>		<b>261</b>	<b>-</b>	<b>644.80</b>	<b>9,643.41</b>

animals: one each of Eastern box turtle (*Terrapene carolina*), domesticated pig (*Sus scrofa*), white-tailed deer (*Odocoileus virginianus*), and domesticated cattle (*Bos taurus*) (Compton 2013).

The general characteristic of the faunal remains (i.e., a high percentage of cattle bones) is similar to that found in many colonial households. Comparatively, the George Moore House in the eastern end of the area investigated by the William Peace University archaeological field schools, contained 553 bone fragments with an MNI of 22. These fragments included a much higher diversity of fauna, which included several species of turtle (n=2), fish (n=6), birds (n=5), and other mammals (e.g., possum and raccoon) in addition to the species identified in the Wooten-Marnan House (Compton 2013). This higher diversity of faunal types may be more indicative of a higher-status household, as reflected by zooarchaeological analyses from townhomes in Charleston, South Carolina. However, the small size of the faunal material from the Wooten-Marnan House makes this far from a concrete conclusion (Compton, personal communication 2013).

The preceding discussion has presented a quantitative analysis, and in some cases qualitative descriptions, of the assemblage recovered from the Wooten-Marnan residence and detached kitchen in accordance with South's Carolina Artifact Pattern. The next section will provide some interpretations of this assemblage, as well as suggestions for future studies.

### **Discussion and Conclusions**

Before presenting the results of this study, it must be emphasized that a number of potential interpretative challenges were identified. The most critical of these was the closeness the house and kitchen on the Wooten-Marnan lot as it appeared on the Sauthier map. This lot is unique in its arrangement at Brunswick Town, as all other lots with dependency buildings have several feet of space between them. This space between the structures allowed South to use his Carolina Artifact Pattern to derive frequencies of artifacts in each structure independently, such as the main residences of Russellborough, Newman-Taylor, and Judge Maurice Moore houses and their detached kitchens.

However, with the physical closeness of the house and kitchen on the Wooten-Marnan lot, it is not possible to separate the artifacts associated with the house from those associated with the detached kitchen. Because of this, we must consider the results of the pattern analysis in this study with caution. The Carolina Artifact Pattern was not designed to test multiple structures. It was designed to indicate the presence of a normative eighteenth-century British-American household. Deviations from the pattern could indicate specialized activities, such as the presence of an elite household, like Russellborough and the George Moore House (Beaman 2001; Gabriel 2012a, 2012b). Obviously, this study does not ideally fit this model, and the assemblages must be considered together. As can be seen in Table 4, the tallied data from this ruin loosely fit the predictive ranges of South's Carolina Artifact Pattern, but deviations, likely resulting from the combining of these functionally distinct structures, do exist.

The most notable deviation is the very high percentage of artifacts that belong to the Kitchen group, a large portion of which represent ceramics and wine bottles. It is known from deed records that Christopher Wooten sold a house with a detached kitchen and garden to Thomas Marnan on January 22, 1766 (Brunswick County Registry Records, A:81; South 2010:194). The William Peace University field school excavations were located mainly within the house area, where

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Table 4. Artifact Assemblage from Excavated Units Associated with the Wooten-Marnan House and Kitchen as compared with South's (1977) Carolina Artifact Pattern.

Functional Artifact Group	Carolina Artifact Pattern		Wooten-Marnan Artifact Assemblage	
	Mean %	% Range	Count	%
Kitchen	63.1	51.8-69.2	3,222	80.1
Architecture	25.5	19.7-31.4	548	13.6
Furniture	0.2	0.1-0.6	2	< 0.1
Arms	0.5	0.1-1.2	7	0.2
Clothing	3.0	0.6-5.4	17	0.4
Personal	0.2	0.1-0.5	3	0.1
Tobacco Pipe	5.8	1.8-13.9	215	5.3
Activities	1.7	0.9-2.7	7	0.2
<b>Total</b>	<b>100.0</b>		<b>4,021</b>	<b>100.0</b>

apparently only test unit 27 clipped the corner of the detached kitchen (as previously seen in Figure 5). With the physical closeness of the house and detached kitchen, a higher proportion of kitchen artifact is not necessarily surprising, as it shows a specialized activity at one of the structures being tested.

The Ceramics class contains the largest percentage of the assemblage. In total, 2,225 sherds of coarse earthenware, refined earthenware, stoneware, and porcelain were recovered. Coarse earthenware comprised over half of the ceramic assemblage, followed by stoneware, refined earthenware, and finally, porcelain. When the relative proportions of wares associated with food consumption and serving, such as delftware, white saltglazed stoneware, and refined earthenware (versus lead and slip glazed coarse earthenware and heavy stonewares commonly associated with food preparation and storage) were calculated, the results were as expected. A higher proportion of food consumption and serving wares were found within the assemblage than food storage and preparation wares. These results are similar to another study conducted by the author on the nearby George Moore House (Gabriel 2012a, 2012b). A future study comparing the types of ceramics between the newly excavated and defined Wooten-Marnan and George Moore houses versus other well-known residences at Brunswick Town, such as Nath Moore's Front and the Hepburn-Reynolds House, may yield similar results. However, it will likely take minimum vessel counts to fully clarify the relationship between the different ceramic types in the different households.



Another problem area lies within the Architecture group, which falls below South's predicted relative frequency ranges. When the absence of *in situ* architectural remains or archaeological features from the house and kitchen is considered, this is not unexpected. Research into the architectural remains of the barracks within this area have indicated that Civil War soldiers removed and/or repurposed bricks and ballast stones from colonial-period houses at Brunswick Town for their own use (Beaman and Melomo 2011:40; Gabriel 2012a:85; Gabriel 2012b:86; South 2010:231). The Wooten-Marnan house and kitchen is likely no exception to this phenomenon. It is plausible that the brick, stone, and other architectural artifacts that likely made up the physical features of these structures were removed and reused or redeposited elsewhere by Civil War soldiers. As noted in Figure 6, it should be restated that two collapsed barracks chimney features of recycled colonial brick and ballast stone were located within the area where the main residence structure stood (Beaman and Melomo 2011:45).

The Clothing and Activities groups also shows a lower than normative proportion of artifacts. In the Clothing group, many of the artifacts included are very small (e.g., beads, hook and eye closures, etc.). It is possible that because soil was screened with ¼-inch mesh, other small clothing items (e.g., straight pins) may have gone undetected through the screens. More delicate artifacts (metal buttons) could have easily decomposed over time in the acidic soil at Brunswick Town. Artifacts associated with the Activities groups are those that belong with more specialized activities, such as stables, farm tools, construction tools, etc. Deed records support the idea that, other than the kitchen, no additional structures of specialized function stood on this lot that are commonly associated with these types of specialized artifacts. The occupations of residents, including mariner, sail maker, and ship purser, also are not associated with artifacts that belong in this group. Again, it must also be considered for both groups that activities during the Civil War may have played a major part in lack of recovery of material remains.

A related study on feature N26, an L-shaped brick pier located on the northern Wooten-Marnan lot, helps illustrate the reuse of colonial architectural elements. This feature, shown in Figure 9, was originally identified and minimally explored by South (1959) during his initial investigations in the area. In his report, he reviewed historical documents and deeds related to this lot and concluded that N26 was a colonial feature, most likely associated with the kitchen on the Wooten-



Figure 9. South's feature N26 upon relocation. Once thought to be related to the colonial-period occupation of Lot 344, this L-shaped pier was found to be of Civil War-era construction.

Marnan lot. However, in an analysis done by the author (Gabriel 2012a), the excavation of this L-shaped brick pier revealed it was actually from the Civil War era. The feature was constructed with broken colonial-era bricks, held together with gray clay mortar. This style of building was

consistent with other Civil War-era barracks features at Brunswick Town (Beaman and Melomo 2011:40; South 2010:191, 231). It also stands as a fantastic example of the reuse of materials from a previous occupation found at the site, and how cultural actions affect transformational processes in the archaeological record.

This brief study has given a preliminary look at the distribution of artifacts associated with the Wooten-Marnan House at colonial Brunswick Town. A number of challenges have also been discussed that posed problems with the interpretations presented here. When taking historical documents into account, it seems safe to state that this is indeed the location of the Wooten-Marnan residence and kitchen, despite the lack of *in situ* architectural remains that one is accustomed to seeing in excavations of other households at Brunswick Town.

For the future, if excavations continue in the northwestern area of Brunswick Town, the kitchen area should be investigated more thoroughly. Once the kitchen area has been more completely excavated, it might be possible to better separate the artifacts and reexamine them as an individual collection to gain a better understanding of this area. In addition, the area north of the Wooten-Marnan lot that contains the remains of Prospect Hall (South's N25) could also benefit from further study and definition. Currently, only a general idea of the location and relationship between these areas is known from South's pioneering investigations and William Peace University's excavations. However, it is worth focusing future excavations in this area to understand better how the houses on these neighboring lots relate to one another.

### **Notes**

*Acknowledgments.* As with any archaeological study, it would not have been possible without the help of numerous individuals. First and foremost, I would like to thank Thomas Beaman, Jr. of Wake Tech Community College and Dr. Vincent Melomo of William Peace University for asking me to conduct the study of this household, and for providing the necessary artifact data, field records, and images from both field schools to complete it. Also, my sincerest thanks to Tom Beaman for the countless hours of conversation, encouragement, support, and repeated editing. I cannot thank him enough for this, or for the positive effects he has had on my professional career.

I would also like to thank the hundreds of individuals who have helped collect the data that made this study possible. Thank you to all students of the William Peace University 2009 and 2011 field schools, the students who participated in the Summer Ventures in Science and Math at the University of North Carolina at Wilmington in 2009 and 2011, and the many volunteer workers who helped along the way.

My appreciation also goes to Dr. Stanley South for the information he shared with me on his excavations in the northern area of Brunswick Town. Dr. South was kind

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enough to recount his memories of exploring features in this area and answer questions pertaining to my research.

I am also grateful for the support, information, help, and involvement from Brenda Bryant, Jim McKee, Shannon Walker, and the other staff members and volunteers of Brunswick Town/Fort Anderson State Historic Site. Thank you all for allowing access to your site, personnel, resources, and equipment that made my research possible.

Additionally, a thousand thanks to Linda Carnes-McNaughton of Fort Bragg Cultural Resources Management Program, as well as Sara Rivers Cofield and Patricia Samford of the Maryland Archaeological Conservation Laboratory, for the identification and references to the d-shaped knuckle bow of the dagger or short sword guard, as well as confirmation of the decorative motif as that of “Adam and Eve.”

The initial version of this study was crafted for presentation at the 2013 Southeastern Conference on Historic Sites Archaeology at Fort Caswell, North Carolina. While the basic content has not changed, this earlier version has been expanded and sections elaborated for its debut in print.

Also, thank you to R. P. Stephen Davis, Jr., Editor of *North Carolina Archaeology*, for providing the technical support necessary to see this manuscript into print.

*Figure Credits.* Excerpts from the Sauthier map of Brunswick Town in Figures 1 and 3 are from the North Carolina State Archives. Bryan Wiggins originally digitally created Figure 2 for use in my thesis (Gabriel 2012a). Figure 4 is from the Brunswick Town/Fort Anderson State Historic Site files at the Office of State Archaeology Research Center, Raleigh. While the William Peace University 2009 and 2011 Archaeological Base Map is on file at the Department of Anthropology, William Peace University, Raleigh, the overlay image of Figure 5 was created by Dick Webb of The Coe Foundation for Archaeological Research, Inc. Figures 6, 7, 8, and 9 are from the 2011 Archaeological Field School photographic collection at the Department of Anthropology, William Peace University, Raleigh. The bottom image of Figure 7 was provided courtesy of Tom Beaman from his original study of delftware tiles (Beaman 1997). Additional thanks to Matt Nisbet of Appalachian State University for the construction of composite images for Figures 7 and 8.

*Disclaimer.* Even with the tremendous support and assistance of the individuals acknowledged above, the author assumes full responsibility for any factual errors and the interpretations presented in this article.

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## **A POSSIBLE PALEO-INDIAN CACHE FROM NORTH CAROLINA**

**by**

**Wm Jack Hranicky**

The six specimens described below were found in Rockingham County, North Carolina, as a cache and were reported to the author by the late Dr. Pressley Rankin. They are referred to here as the Rankin Cache. Their attributes and morphologies represent a possible variety of functional usages. They may be simply a ceremonial cache; however, they are suggested as examples of large bifacial knives. The suggestion that such mega-bifaces may have served as early butchering knives (i.e., cutting implements) was made in Hranicky (2012). This argument is based on the large size of these tools as butcher implements for large animals. The literature rarely defines butchering tools as function is difficult to prove. However, as an example, Hammatt (1970) refers to a flint cache as butchering tools in Oklahoma. This cache has large blades and choppers. Naturally, caches have numerous interpretations in archaeology.

While the six specimens in the Rankin Cache have similar morphologies, several specimens have pronounced, V-shaped stems. The entire cache was made from rhyolite, and the entire cache was made of large spall/blade-like pieces. The toolset probably belonged to a hunting group rather than one individual's toolkit; however, the community aspect of prehistoric tools is difficult to prove archaeologically. Another factor often suggested for caches is that they were storage preforms for future manufacture into smaller tools. This is not the case for the Rankin Cache as all specimens show use wear. The cache can be divided into two forms: V-shaped knives and chopper-like implements.

Like quartzite, rhyolite was a popular stone for caches (Hranicky 2010). These materials have rejuvenative properties, such as when used, the edge wear causes the edge to resharpen itself. Thus, edges stay sharper for longer life cycles.

These specimens were manufactured using a hard hammer (initial shaping) percussion flaking and large antler billet for finalizing flaking.



Flake scars are bold and generally extend well into the center of the biface. The specimens do not have edge retouch, but workends show wear polish. Figure 1 shows a mega-biface model which is reflected in the cache (Hranicky 2012).

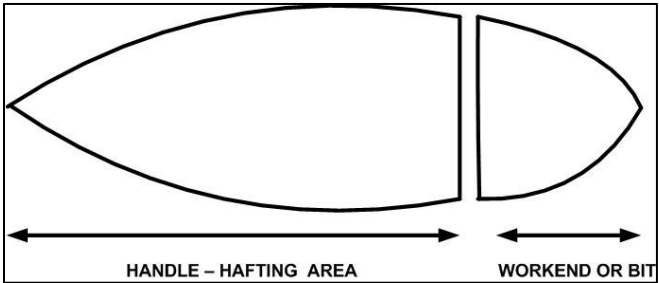


Figure 1. Basic Mega-Biface Design for V-Shaped Implements.

The cache statistics are presented in Table 1. For comparative Middle Atlantic cache statistics, see Hranicky (2010). By using the ratio of  $(L/W) \times T$ , the cache is well made with a high average R factor of 32.62; specimens have few flake hinges. Length of the specimens ranges from 104 mm to 179 mm and suggests a large tool function. The width varies but falls within 65 mm to 75 mm. The thickness ranges from 13 mm to 17 mm, which is thin for the bifaces' sizes.

Table 1. Rankin Cache Statistics.

Specimen Number	Description	Length (mm)	Width (mm)	Thickness (mm)	Ratio $(L/W) \times T$
1	Rhyolite, ovate form.	119	65	16	29.29
2	Rhyolite, V-shaped form, pointed bit.	179	54	14	46.40
3	Rhyolite, semi-V-shaped form, squarish bit.	127	56	14	31.74
4	Rhyolite, V-shaped form, round bit.	131	62	13	27.46
5	Rhyolite, V-shaped form, round bit.	157	75	17	35.55
6	Rhyolite, ovate form.	104	61	15	25.57
	Average	136.16	62.16	14.83	32.62

## POSSIBLE PALEO-INDIAN CACHE



Figure 2. Specimen #1 from the Rankin Cache.

Specimen #1 has an ovate shape with semi-pointed ends (Figure 2). The entire edge margins are sharp; however, this is possibly the result of bifacial reduction in shaping its spall. This specimen is large with thin flake scars. It has a length-wise slight curve to it which suggests it was made from a large blade-like spall. It has a major hinge from a large flake removal which is an overshot flake.



Figure 3. Specimen #2 from the Rankin Cache.

Specimen #2 is the largest biface in the cache (Figure 3). It has a V-shaped bit that has been used. It is classified as a mega biface. The bit (workend) is sharp, and the reverse face has cortex remaining. For its size, this specimen has a flat length profile. It also exhibits overshot, edge-to-edge flake scars.



Figure 4. Specimen #3 from the Rankin Cache.

Specimen #3 has an off-center bit (Figure 4). The right end is V-shaped and sharp. This specimen is a large one in the cache, which suggests a mega-biface function. It also has heavy patinated areas on the face. The bit (at left in Figure 4) may have served as a chisel function. This specimen has one overshoot, edge-to-edge flake scar, and it may have dual workends.

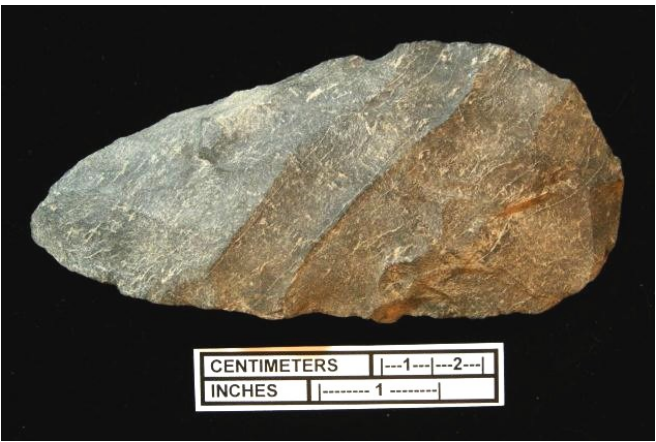


Figure 5. Specimen #4 from the Rankin Cache.

Specimen #4 has a sharp, rounded bit (Figure 5). Noticeably, it has two cross-face, diagonal flake scars. It is classified as a rounded-bit mega biface. Its size suggests that it was probably used for butchering large game (as in Hranicky 2012). The artifact has a slight twist length-wise from tip-to-tip, which indicates it was made from a large spall.

## POSSIBLE PALEO-INDIAN CACHE

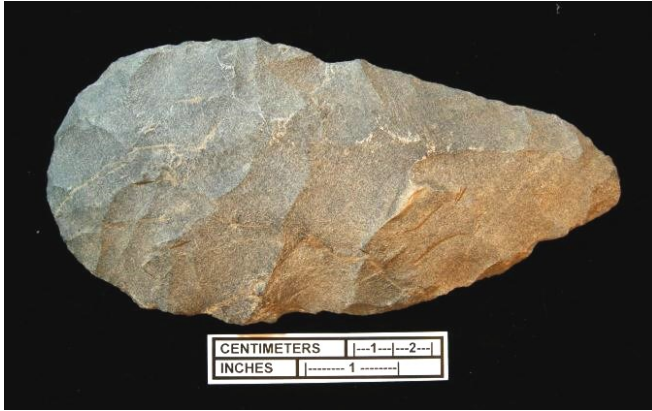


Figure 6. Specimen #5 from the Rankin Cache.

Specimen #5 has a wide (left) sharp bit (Figure 6). The V-shaped stem is short compared to the other specimens. The right end in the photograph is the hafting (chassis) end. The bit is rounded and still sharp. Its size suggests a heavy duty cutting or chopping function. It has bold, but thin flake scars, which almost extend edge-to-edge.



Figure 7. Specimen #6 from the Rankin Cache.

Specimen #6 is an ovate-shaped biface (Figure 7). The lengthwise margins are sharp. It is classified as a chopper; however, its function remains to be determined. The ovate form has not been identified archaeologically for a specific function. The specimen has a lengthwise

large flake scar, which is based on the overshot thinning method that was used in the Paleo-Indian era.

### **Summary**

The following observations can be made about the Rankin Cache. While the V-shaped stems vary between specimens, all possess a similar stem angle. The cache is interpreted as a *working* toolkit, and if this interpretation is correct, then Specimens #2, #3, and #4 likely were hafted. As such, the cache probably represents a non-projectile point toolkit and may date early in North Carolina prehistory. The tools in the cache exhibit a variety of shapes and working bits, but all have bits with sharp margins. The amount of wear on each bit still needs to be determined. This presentation is based only on tool morphology and suggests a multi-style toolkit. No date can be determined presently for the cache; however, while the patination (weathering) is light, the author suggests the Rankin Cache may be Paleo-Indian in age based on the high quality of flaking evidenced on all specimens. The cache was probably made by a single knapper.

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