North Carolina Archaeology



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CONTENTS

The Genesis of Cherokee Archaeology in Western North Carolina Bennie C. Keel	. 1
The Jasper Allen Mound: New Insights from the Valentine Collection Benjamin A. Steere	44
What Surrounds Connestee Mounds? Insights from Magnetometer Survey at Biltmore Mound (31BN174), Buncombe County, North Carolina <i>Alice P. Wright and Timothy J. Horsley</i>	63
Woodland Pottery Vessels from Site 31GF466: Classification and Interpretation Shawn M. Patch and Christopher T. Espenshade	81
Book Review	
Claude J. Sauthier and his maps of North Carolina: An Interpretive Guide, by Stewart E. Dunaway Thomas E. Beaman, Jr	116

About the Authors 121

Cover Illustration

[&]quot;Sketch of portion of 4-headed vessel from Jasper Allen Mound." Unattributed drawing, 1881. Valentine Papers, Accession # 2156-08. Research Laboratories of Archaeology, University of North Carolina, Chapel Hill.

North Carolina Archaeology

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THE GENESIS OF CHEROKEE ARCHAEOLOGY IN WESTERN NORTH CAROLINA

by

Bennie C. Keel

Abstract

The first significant archaeological investigations into the origins of the Cherokee Indians of western North Carolina were undertaken between 1879 and 1883 by Mann Satterwhite Valentine, his sons Benjamin, Edward, and Granville, and his agent A. J. Osborne. Osborne purchased relics brought to his farm by local farmers, traveled by horseback throughout the western counties to buy relics, and excavated several mounds. Benjamin, Edward, and Granville Valentine excavated the Sawnooke (Nununyi), Tuckasegee (Kituwha), and Birdtown mounds in 1882 and 1883. Mann also was a victim of fraud—involving carved soapstone images of purported great antiquity—that was perpetrated by a family of mountaineers at the foot of Mount Pisgah, and he spent considerable effort to determine the guilty party.

Mann Satterwhite Valentine was a prosperous Richmond Virginia merchant and the inventor of Valentine's Meat Juice, a product that made him wealthy (Figures 1 and 2). He also had a great interest in history, the arts, and archaeology. Mann married Ann Maria Gray (1836–1873) in 1855. She bore him a daughter and nine sons in the 13 years between 1856 and 1869; little wonder that her health was failing in 1870. In his basement laboratory. Mann "created a health drink that was a mixture of egg whites and meat juice that saved her life" (Anonymous 2019c). He also supplied his meat juice to other ailing relatives and friends, and when they regained their strength he concluded that his invention had commercial potential. He patented his meat juice process in the United States, Great Britain, France, Belgium, and Ireland, and by 1873 he was processing 800 pounds of beef daily (Kollatz 2009; Swenson 2013). The suggested retail price for the two-ounce bottle was \$1.00 (\$25.78 in 2019 dollars). The company also produced a liver extract with a suggested price of \$2.25 (\$58.02 in 2019 dollars) per eight-ounce bottle. The century-old Valentine's Meat Juice went out of business in 1986, and the plant was sold in 1987 (Kelly Kerney, personal communication 2018).

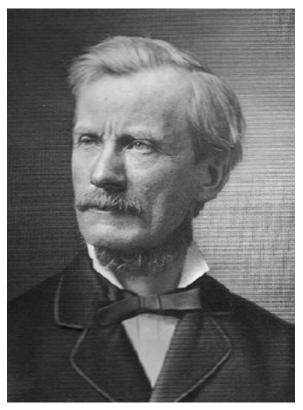


Figure 1. Mann Satterwhite Valentine, 1824–1892.

When he died in 1893, Mann Valentine left his home, collections, and an endowment of \$1,355,000 (in 2019 dollars) to establish a museum for the benefit of the people of Richmond. The Valentine Museum opened to the public in 1898. Over the years, the museum has changed its name and its mission several times. The most recent name change came in 2014 when it became "The Valentine" (Anonymous 2019d).

Mann Valentine's bequest to establish a museum was set out in his will as follows:

Many years of the life of my father and my brothers and my sons and myself have been devoted to securing and accumulating objects of Archaeology, Anthropology, and other kindred arts, with a view and purpose of making them valuable to my State and city; and in order to preserve these and to effect the publication of certain manuscripts and papers of scientific and literary value, and make them all interesting, instructive and profitable to those of my community and State, I



Figure 2. Valentine's Meat Juice (from M. Valentine 1874).

desire to establish in the city of Richmond, Virginia, an institute to be called The Valentine Museum, for the purpose of preserving and accumulating objects of Archaeology, Anthropology and other kindred arts, etc., for publishing literary, historical and scientific papers, compatible with the ability and amount of endowment of the said institute. [Valentine Museum 1898:4]

In addition to the antiquities the family had collected, the estate included a library of several thousand rare works, manuscripts, autographs, engravings, pictures, curios, china, and antique furniture. Mann's brother, Edward V. Valentine, donated rare tapestries, casts of his recumbent figure of General Robert E. Lee, outline sketches, and the death mask of Stonewall Jackson. Mann's son, Granville, added casts from original marbles, bronzes, tablets, and masks of Assyrian, Egyptian, Greek, Roman, Renaissance and modern times that he had acquired from the British Museum, the Vatican, and elsewhere.

Richmond Va April 5 4. S. Osborne Esq Dear G ambshire. in a recer 1 and

Figure 3. Two examples of the Valentine documents.

Explorations in Western North Carolina

Many of the North American antiquities exhibited in The Valentine Museum when it opened were collected during explorations of archaeological sites in western North Carolina by Mann Valentine, his sons, and his agent A. J. Osborne. Documents pertaining to these explorations are contained in the Valentine Papers and the Osborne Papers, and together total well over 2,000 pages. Most of the documents are legible though some are not (Figure 3). The original Valentine correspondence, memos, and essays are curated at The Valentine; photocopies, transcriptions, and digital copies of those records are contained in the archives of the Research Laboratories of Archaeology at the University of North Carolina at Chapel Hill. The A. J. Osborne Papers are archived in the Southern Historical Collection, Wilson Library, at the University of North Carolina at Chapel Hill. The latter also contains the original letters between the Valentines and the Osbornes. The majority of the Valentine correspondence, essays, notes, and memos were written by Benjamin (Ben) B. (1862-1919), followed by Mann (1824–1892), Edward (Eddie) P. (1864–1908), and Granville G. (1860–1913) (Figure 4).

Ben worked with Eddie on the Birdtown Mound (31Sw7) in 1883. In later life, Ben was an advocate for the improvement of the Virginia public school system, and his wife agitated for woman suffrage throughout the state. Granville maintained the correspondence with Osborne in 1881 while both Mann and Ben were in Europe, and he participated with Eddie in the exploration of the Sawnooke (Nununyi,

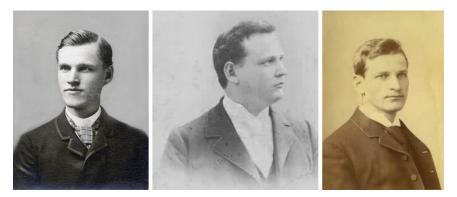


Figure 4. Valentine brothers who dug in North Carolina (l-r): Benjamin, Granville, and Edward.

31Sw3) Mound in 1882. Eddie, the youngest of Mann Valentine's sons, was the most active of the brothers in the North Carolina explorations. In 1880, he accompanied his father to Mount Pisgah in Haywood County to obtain stone carvings described later as the Mount Pisgah Fakes and dug at the Sawnooke, Birdtown, and Tuckasegee (Kituwha, 31Sw2) mounds in Swain County. Eddie continued his archaeological interest and is reported to have dug a mound in the vicinity of Murphy, North Carolina. He also excavated the Haynes Creek Mound in Rockbridge County, Virginia, in 1901 (Gold 2004). As an adult, he sponsored the genealogical studies of the Valentine family and their in-laws. This collection contains over 2,000 records (E. Valentine and Torrence 1927).

The primary goals of museums and collectors during the nineteenth and early twentieth centuries were to recover relics for display and study (Figures 5, 6, and 7). In the eastern United States, the excavation of mounds dominated fieldwork during this period of American archaeology. Sinking a shaft in the center or digging trenches into a mound was the rule. There was little or no consideration of stratification or superposition; the idea of cultural sequencing was to come later. Only two cultures—that of the Mound Builders and that of the Indians—were conceived at that time. Both were believed to be only a few hundred years old.

A. J. Osborne's Artifact Collecting Activities

As noted earlier, the Valentine family had been collecting Indian relics from a variety of sources: relic dealers, farmers, surface collecting, and digging into mounds near Richmond. In 1879 Mann decided to

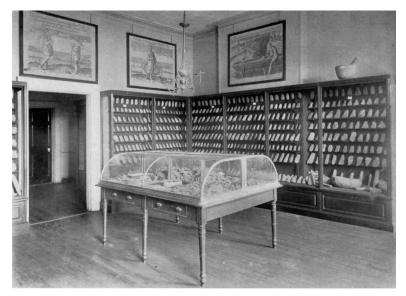


Figure 5. Exhibit cases in the Archaeology Department of the Valentine Museum, Room 3 (from Valentine Museum 1898).



Figure 6. Cherokee pottery in exhibit case at The Valentine Museum before being dismantled in 1969 (courtesy of Research Laboratories of Archaeology, UNC-CH).



Figure 7. Exhibit case at The Valentine Museum before being dismantled in 1969 (courtesy of Research Laboratories of Archaeology, UNC-CH).

extend his archaeological efforts to western North Carolina after he received a collection of relics from a Col. Cameron. Valentine was intrigued by the complicated-stamped pottery in this collection, which was unlike the cord-marked pottery from Virginia. Valentine was "anxious to have a variety of all the stone objects and earthen made ones in North Carolina to compare them with those in Virginia" (B. Valentine 1879a). John Goodale of Nashua, New Hampshire, another of Valentine's collector friends, recommended Adoniram J. (A. J.) Osborne of Garden Creek, North Carolina to assist Valentine in adding to his collection. The thirty-seven-year-old Osborne was a "correct and honorable citizen of Haywood" [County] and a "well to do farmer, worth about \$10,000" (M. Valentine 1882b).

Osborne agreed to sell Valentine artifacts found on his farm, to buy Indian relics brought to his farm by local farmers and collectors, to travel the western counties of the state to buy relics, to dig mounds, and to pack and ship the acquired relics to Valentine in Richmond. He posted notices in the towns and villages stating he would buy relics on his next trip there (Figure 8). Mann agreed to pay Osborne \$2.00 a day when he traveled, which included the use of his horse, plus expenses and 10

	DTICE, ALL!	
ern N	Il make α trip through West- North Carolina this spring, at the interval of the second sec	
	"INDIAN RELICS"	
which you may have	collected, such as-	
ARROW-HEADS, SPEAR-HEADS, TOMAHAWKS, HATCHETS, SCRAPERS, PESTLES, MORTARS, BOWLS, WEIGHTS, POTS, PIPES, &c., &c.		
For these relics I w have always found sa	ill pay my usual prices, which you atisfactory.	
I WILL BE AT-	• • • • • •	
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Robbin'sville, Graham "		
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Franklin, Macon "	· · · · · · · · · · · · · · · · · · ·	
Aquone, Clay		
Hayesville, Clay "		
19038	A. J. OSBORNE.	

Figure 8. A. J. Osborne's notice to buy Indian relics.

percent of the cost of the acquisition of relics for packing and shipping them to Richmond. In addition to his own buying and digging efforts, Osborne hired others to serve as subagents. Most notable of these subagents was R. D. "Dill" McCombs who dug into the Peachtree Mound, which was on his wife's farm near Murphy. Osborne's wife, Mary, agreed to buy, pack, and ship relics brought to the farm when her husband was traveling or busy with farm work. Rather than be paid for her efforts, she asked Valentine to make contributions to the building fund of their church in Waynesville, which he agreed to do. By May 1880, Valentine had contributed over \$650.00 (in 2019 dollars) to the building fund. The church was dedicated on July 1, 1880.

Osborne's efforts began in July 1879 after he received a check for \$50.00 (\$1,361 in 2019 dollars) from Mann, who said that it should be used to purchase a sizable collection of pots, pipes, bowls, axes, beads, and other relics. Osborne informed Valentine that most of the relics found on and around his farm were in the hands of children and asked

what he should pay for them. Valentine told him that he should pay "ten cents a dozen for arrowheads and ten, fifteen or twenty cents for axes and wedges." Valentine also told Osborne that he and his neighbors thought the "relics were rarer than they really are" and wanted too much for them, and although he wanted North Carolina relics he would not pay "fancy prices for anything" (B. Valentine 1879). On horseback, A. J. traveled at least 1,000 miles in Valentine's service. He visited Yellow Hill (Cherokee), Robbinsville, Charleston (Bryson City), Andrews, Valleytown, Murphy, Peachtree, Haysville, and into eastern Tennessee. He also traveled east into Buncombe County in addition to his travels to collect carved-stone "images" from Mount Pisgah.

Osborne was very thrifty with Valentine's money and regularly provided an accounting of the money sent to him and how he spent it. He refused to buy relics he considered to be overpriced. He told Mann:

I wish you were in North Carolina for one or two weeks & see the children hunting rocks for you. I take a great deal of pains to tell them what to hunt for & show them all the objects so as to give them an idea what to look after. Everything that is found by the poor class is brought to me at once. Some ladies have walked ten miles with one dollar's worth of rocks. They have no other way of getting a little money. Hence they all come as soon as they can find a few rocks. [Osborne 1880a]

Although Valentine had informed Osborne that he had enough arrowheads, he also said Osborne should continue to buy them because the children find other things as well.

The Valentines and Osbornes developed a friendship during their business dealings, especially Eddie who lodged with the Osbornes on several occasions. Their commercial activities expanded with Osborne supplying Valentine with shipments of apples, butter, ginseng, and eggs. The Valentines sent books for the Osborne children and Christmas presents for the family. One box of Christmas gifts contained china for Mrs. Osborne, saddlebags for A. J., books for the girls, "little tricks" for Arthur, and candy and nuts.

By late 1879, Osborne had begun digging into local Indian mounds at Mann Valentine's request. Following Valentine's instruction, Osborne would pay the owner of a mound a fee for access to the mound with the understanding that everything recovered would belong to Valentine. Also, Osborne would pay the owner a dollar and his "hands" fifty cents a day to assist in the digging.

Hyatt's Mound

On December 8, 1879, Osborne wrote Valentine that he had opened Hyatt's Mound, located one mile west of Waynesville (Osborne 1879b). With this initial exploration, Osborne became the first person to document the excavation of an archaeological site in the Cherokee homeland. Unfortunately, no details of this work are provided in the Valentine Papers. The Hyatt Mound was the first of 14 mounds that Mann Valentine had opened between December 1879 and August 1883.

Smather's Mound

On January 20, 1880, Osborne reported that he had opened the Smather's Mound (Garden Creek Mound #2, 31Hw2) where he encountered three flexed burials in poor condition. Two of the skeletons had shell bead necklaces. He said that they were buried on top of each other with about one-and-a-half feet of soil between them. The mound was seven or eight feet high (Osborne 1880a). Eighty-five years later, I supervised the excavation of the remainder of the mound (Keel 1976), and Alice Wright (2014) conducted additional research here in 2010– 2012. Both investigations documented interactions between Middle Woodland people in western North Carolina and the Midwestern United States.

Coots Farm

Osborne reported on February 26, 1880, that he "dug a small mound on Coots farm." No details of this exploration could be found in the Valentine Papers or Osborne Papers.

Wells Farm

In July 1880, Osborne opened at least four of the ten or twelve mounds he saw on the 75-acre Wells farm. Three of them produced "little bits of flint & pottery." In the fourth mound, he noted that it had been plowed down to a height of three and a half feet and contained stones on and in the mound. He found a flexed burial and noted "This mound had a reddish arched stratification and a blackish one succeeding to each other.... There had been the upper earth removed & below red clay and charcoal were in layers several inches thick thro' out" (Osborne 1880c). The stratification and the rock mantles he described are reminiscent of the townhouse mounds at Peachtree, Garden Creek Mound #1 (Dickens 1976), Estatoe (Kelly and de Baillou 1960), Chauga



Figure 9. Rock mantle uncovered in 1934 by Jennings at the Peachtree Mound (Setzler and Jennings 1941:Plate 6B).

(Kelly and Neitzel 1961), and perhaps Jasper Allen Mound (Figures 9 and 10).

Walter Brown Mound

After completing work at the Wells farm, Osborne informed Valentine that he went onto Waynesville and opened the Walter Brown Mound, without good result. "But was very unsuccessful. I found only a beautiful scraper. The cost of opening outside of my labor amounted to \$2.70. I was two & ½ days on your work" (Osborne 1880b). Seventy dollars (in 2019 dollars) was the cost to savage this earthwork.

Peachtree Mound

Osborne met Robert Dale (Dill) McCombs on one of his 1880 buying trips, who told him that he knew of a promising mound in Cherokee County (Peachtree Mound, 31Ce1). Osborne hired him to open this earthwork, which was on his wife's farm. McCombs started work on December 14, 1880, and, except for a break at Christmas, he and his hands worked the mound regularly (McCombs 1880). He was joined for five and a half days in February 1881 by Osborne who worked with him on the mound. McCombs finished his work by mid-February. McCombs sent plan and profile drawings to Osborne, who then sent



Figure 10. Rock mantle uncovered in 1967 at Garden Creek Mound #1 (courtesy of Research Laboratories of Archaeology, UNC-CH).

them to Valentine (Figures 11 and 12). McCombs concluded "The whole body of the mound from the first floor is composed of alternate layers of black earth, ashes and coal about 3 inches thick—and red or brown clay of same thickness." He noted the stratigraphy of the mound was composed of layers of dark earth and red burned clay. Not realizing he saw townhouse floors, he concluded that the builders "would burn the ground then cover it with clay and burn it again and cover it again until the top was reached" (McCombs 1881). James Alexander, one of the earliest settlers in the area, told McCombs that in 1840 the mound had "an old frame of moss-covered timber [on] it and was all grow [sic] over with shrubbery of Hazelnut – bushes, grape vines Briars, etc." McCombs stated that at least 30 burials were encountered; three were in stone box graves (McCombs 1881).

Sixty-three years later, on December 21, 1933, Jesse D. Jennings with a crew of 101 men provided by the Civil Works Administration reopened the mound and excavated a small area in the village. They finished their work on April Fools' Day 1934. Jennings used this research as his master's thesis at the University of Chicago, and it provided the basis for the final published report (Setzler and Jennings 1941). The schematic drawing by Setzler and Jennings (1941:20) appears to show the actual structure of the mound (Figure 13). Jennings found four additional stone box graves (Setzler and Jennings 1941:34). The stone box graves here and perhaps at the Jasper Allen Mound are the

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Figure 11. McCombs' excavation plan of the Peachtree Mound, 1881.

only examples of this mode of burial in western North Carolina, but they are common in the Nashville Basin of central Tennessee. I believe that the disturbance of the rock mantle created by McCombs' digging led Jennings to erroneously interpret the rocks he encountered as benches around the central hearth. In the 1930s the chronological understanding of the archaeological record in the Southeast was in its infancy. Jennings considered "the Peachtree site is a component in which both Woodland and Mississippi traits occur simultaneously, blended or fused to make a culturally homogeneous site. It has a temporal range from 1830, or thereabouts, back to pre-white contact, and was probably occupied by

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Figure 12. McCombs' profile drawing of the Peachtree Mound, 1881.

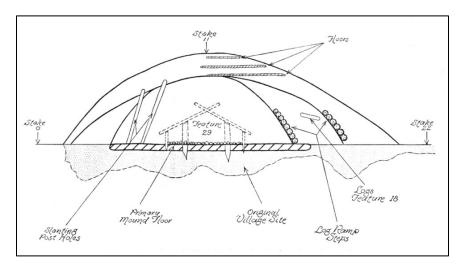


Figure 13. Schematic cross section of the Peachtree Mound through the long axis (from Setzler and Jennings 1941:20).



Figure 14. Two ceramic water bottles recovered from the Jasper Allen Mound by A. J. Osborne, 1881 (courtesy of Research Laboratories of Archaeology, UNC-CH).

Cherokee during this entire period" (Setzler and Jennings 1941:57). Not having a developed cultural sequence for the Appalachian Summit to work with at that time, Jennings can be forgiven his errors.

Jasper Allen Mound

Osborne dug the 46-feet-diameter Jasper Allen Mound in Jackson County from December 12–19, 1881, with "5 hands" that he paid 62 ½ cents per day. This effort cost Valentine a total of \$46.63 (in 2019 dollars) which included labor, two dollars for crop damage, \$16.00 for Osborne's pay, and \$4.20 for his bed and board at Allen's home (Osborne 1881b). Osborne informed Valentine that the mound was composed of different layers of earth and clay, and he had found potsherds, charcoal, ashes, and badly decayed bones. He recognized three burials. The first one, in a stone box grave, was badly decayed with a few shell beads. The second one had five "nice weights, thoroughly polished, a piece of terrapin shell partially decayed, one arrow point." The third burial had two anthropomorphic shell-tempered water bottles (Figure 14), a conch shell mask, a large conch shell, and a pipe (Osborne 1881a). Ben Steere has found that the mound was situated

at the site of Jackson County Transit Building at the intersection of Skyland Drive and Allen's Branch Road in Sylva (Steere 2019).

Rogers Mound

Osborne also visited the Rogers Mound or Cullowhee Creek Mound (31Jk2) in Jackson County. While I have found no documentation of him digging here, there are artifacts in the Valentine collection at the University of North Carolina, Chapel Hill, that can be attributed to this mound.

Summary of Osborne's Work for the Valentines

Between June 29, 1879, and August 3, 1883, Mann Valentine provided Osborne with almost \$71,000 (in 2019 dollars) to buy relicts, to cover his collecting trips, explore mounds and pack and ship the materials to Richmond. This figure is a minimum as there are significant gaps in the documents; for example, there is no record of funds sent to Osborne between August 21, 1879, and January 3, 1880, and again between August 23, 1880, and November 6, 1880. During these periods, Osborne was collecting and making shipments to Richmond. There is no record of Valentine sending Osborne any money after August 3, 1883, although the Osbornes continued to work for him until at least 1886. As earlier stated, Osborne sold Valentine relics collected on his farm and spread the word locally that he was buying relics, which prompted a steady stream of sellers to his farm. He or Mrs. Osborne would pack the shipments in boxes or nail kegs and have them taken by wagon to Asheville where they went by railroad to Richmond. After the railroad was extended to Garden Creek in 1882, relics could be shipped directly from there. It is impossible to determine the size of the North Carolina collection accurately, but an undated inventory of the collection indicates that it filled 48 boxes and 22 nail kegs. Surely, it numbered several thousand items.

Mound Excavations by the Valentine Brothers

The field techniques of the Valentine brothers were quite advanced for the time. They took notes of their digging, made plan drawings of their excavations, and in some cases made sketches of mound stratigraphy. By 1883 they were photographically documenting their work. The provenience of finds was recorded by measuring the bearing and distance from a stake driven in the center of the mound and the depth below the surface. For example, a skeleton in a mound was recorded to

be at 17 feet NW of the center and 3 feet below the surface (E. Valentine 1882b). Unfortunately, the use of cardinal directions and its subdivision is imprecise since the NW quadrant covers a 90-degree arc, the area between cardinal directions W and N, so at 20 feet from the center, a find could be anywhere on a line 98 feet long. The use of a grid system for recording horizontal relationships of archaeological data in the United States did not come into use until the late 1920s or early 1930s. Jesse Jennings' use of a grid in 1933 at the Peachtree Mound and Village (31Ce1) is the earliest example that I know of in North Carolina (Setzler and Jennings 1941:15).

Although they recorded the depths of finds below the surface of the mounds, it is impossible to determine the vertical relations among finds because of the sloping sides of the mound. What was needed was a fixed vertical datum from which the depths of all the discoveries could be measured, so that their vertical placement could be related to one another.

Sawnooke Mound

Eighteen-year-old Edward and his 22-year old brother Granville left Richmond on September 3, 1882, by train for Asheville, North Carolina, and from there they traveled by buggy to Osborne's farm. After a short visit, they went to Quallytown (Cherokee). There, they roomed and boarded with Chief Nimrod Jarrett Smith who assisted with the hiring of six Cherokee men (E. Valentine 1882a) to dig the Sawnooke Mound (Nununyi, 31Sw3). Chief Smith's home, a four-room cabin, was situated on the site of the old Cherokee Grammar School (Finger-Smith personal communication 2015).

Edward's field notes (E. Valentine 1882b) describe the Sawnooke Mound as being 11 feet high, measuring 130 x 100 feet at the base and its flat top measuring 56 x 36 feet (Figure 15). Edward noted a red clay floor one and a half feet below the surface that covered the top of the mound and a layer of clay mortar some 26 x 10 feet in area (Figure 16). This was probably the remains of a fallen clay-daubed wall or roof. The Valentine's Department of Archaeology Catalogue of Objects (G. Valentine et al. 1898:52) describes the items (Figure 17) that were recovered as:

A perforated axe [a spud], bone implements, discoidals, spear heads, fragments of pottery, broken pipes – one representing a bird – charred corn cobs, reeds and wood, and broken bones of bear and deer were found scatted throughout the mound, apparently for the most part,



Figure 15. View of the Sawnooke Mound in 1964 (courtesy of Research Laboratories of Archaeology, UNC-CH).

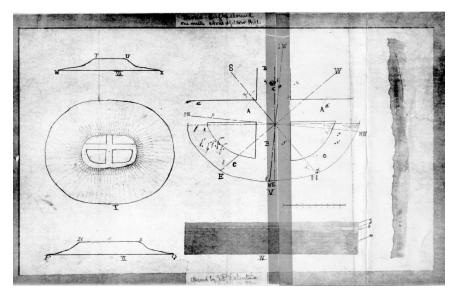


Figure 16. Edward Valentine's plan of excavation at the Sawnooke Mound, October, 1882 (courtesy of Research Laboratories of Archaeology, UNC-CH).



Figure 17. Shell mask, gorget, and pins recovered during Edward Valentine's excavation at the Sawnooke Mound (courtesy of Research Laboratories of Archaeology, UNC-CH).

accidently, rather than purposely buried. It is well to note that the Sawnooke and Birdtown Mounds are upon Cherokee lands which have never been in the possession of white people; also, that the traditions now, as when Bartram visited the Cherokees in 1776, is that the mounds were there when their ancestors arrived. The objects discovered, however, show that the same stage of civilization obtained at the time of the building of the mounds as obtained among the Cherokees when first discovered by the Europeans. [G. Valentine et al. 1898:53]

Parenthetically, I conducted a bit of digging at Nununyi (Sawnooke Mound) in 1964 and provided reports to the Bureau of Indian Affairs and the Eastern Band of Cherokee Indians (Keel 1971) (Figure 18). Remote sensing investigations conducted by Ben Steere and Dan Bigman at the site in 2014 indicate multiple layers of mound construction, a historic Cherokee townhouse, and houses in the village area that are intact (Steere and Bigman 2015).

Tuckasegee Mound

After completing work at the Sawnooke Mound, Eddie and Granville proceeded to Charleston (Bryson City), North Carolina. Granville returned to Richmond in mid-September. (B. Valentine 1882a), but Eddie remained in Cherokee country until late October. During this time, he became so involved in exploring the Tuckasegee (Kituwha) Mound and three small mounds that he failed to keep his family informed of his whereabouts and activities. On October 12, 1882, Osborne received a letter from Ben informing him that they had not heard from Eddie since October 2 and were concerned about his welfare (B. Valentine 1882b). Osborne dropped his work and immediately went



Figure 18. Bennie Keel and Richard Crowe at the Sawnooke Mound in September, 1964 (courtesy of Research Laboratories of Archaeology, UNC-CH).

to look for him. A day after he left his farm, a letter arrived from Ben telling Osborne that Eddie had surfaced in Swain County and that Eddie's "not writing is outrageous, Father says give him a sound thrashing when you see him—then give him another—he did not have much luck with the large and three small mounds—this is the reason for him not writing—we are sorry if we have given you any trouble over Eddy in leaving your farm in search of him (B. Valentine 1882c).

Eddie explained that the delay of getting to Osborne's was caused "by trouble with buggy and harness—Buggy is falling apart, and harness irritates the mule. Repairs to carriage to cost \$10.00 to \$12.00, which Mr. Henson [who had rented the buggy to them]) did not want to spend to have it repaired. So it was left behind" (E. Valentine 1882c).

Unfortunately, nothing in the archives provide any details of Eddie's efforts at Kituwha and the three other small mounds other than to say that Eddie did not have much luck with them. However, 49 specimens transferred from The Valentine to the Research Laboratories of Archaeology, University of North Carolina, Chapel Hill, and

cataloged under accession number 2162 were recovered from Kituwha. Several, if not all, were undoubtedly found in his digging.

Birdtown Mound

In July 1883, Edward, along with 21-year-old brother Benjamin, returned to Cherokee country to investigate the Birdtown Mound (31Sw7). Again, they roomed and boarded with Chief Smith, who helped them hire 10 Cherokee men to conduct the shovel work. It took 10 days for this workforce of 12 to go through the mound (B. Valentine 1883a).

Benjamin wrote his father the following account of their activities:

... we get up at 5 o'clock every morning and arrive at the mound by 7 at which point we remain in until sunset, being out in the heat of the sun all of the time except at the dinner hour. When we come home (the chief's house) we are pretty well broken down and want to get to bed as soon as possible, so you see we have little time to write, even in our note books, which we try to keep straight... we went with Hyatt down to Birdtown where he had secured a mound for us to open, but being unable to get hands to work on that day, we engaged 10 Indians, to be at the mound on Thursday at 6 o'clock. The Indians were waiting for us when we arrived, and after photographing the mound with the Indians upon it we commenced digging a trench 7-ft. wide from the outer rim with the intention of carrying the trench all around the mound then another around it—and another, until at length the core was reached, and then the whole mound would be opened. The mound is situated on the right bank of the Oconee Lufty river in a little valley.... It's 100 ft. long by 93 ft. wide, perhaps 8 ft. high.

In the first circular trench, we found near the edge of the mound quite a number of weights—perhaps 30 or 40—one being large and beautifully made. We also found much pottery, several pieces of pipes, one badge, and many bones of animals, — bear, deer, squirrel, opossum, and turkey. We found two complete skulls of the bear and one of the deer. The digging of the trench has taken nearly three days (Thursday, Friday, and Saturday), and not until Saturday evening did we commence making a trench larger or working to the core of the mound. On Saturday evening, we commenced to finding bone implements, and today we found 40 or 50—nearly all of them being awls or piercers. [B. Valentine 1883a]

The report published in the catalog of collections states:

[T]he mound was circular in form. The summit of the mound was 80 feet in diameter and 107 feet at the base. No burials were found in

the mound but in the yellow sandy subsoil some 35 to 40 feet from the center three skeletons were encountered lying in a flexed position like those found in the Sawnooke Mound. One skeleton was accompanied by a "conch shell breast plate on which is carved an owl head" and conch shell beads. The second skeleton had a necklace of small shell beads, larger conch columella beads at the neck, and two small conch shell pin-shaped pendants. A similar necklace and a pipe accompanied the third individual. [G. Valentine et al. 1898:5]

They found other relics, including numerous potsherds, nine clay and two stone pipes, pipe fragments made of clay and stone, 39 bone awls, two celts, two stone pendants, seven hammerstones, more than 70 stone discoidals, and shell artifacts (Figure 19). The presence of vertical postholes in the trenches indicated that structures, "perhaps the townhouses of the prehistoric settlement," once stood on this and similar mounds (G. Valentine et al. 1898:50).

Other Activities and Observations of the Valentine Brothers

Once digging at the Birdtown Mound was finished, Ben and Eddie moved on to Charleston (Bryson City) and then to Peachtree Mound where they visited Dill McCombs who had excavated there in 1880– 1881. Going further south, they examined a "track" rock in a gap between Murphy, NC and Gainesville, GA, and visited Captain Nichols and observed that the objects he had collected from the Nacoochee Mound "resemble those from the McCombs mound." They returned to Richmond on August 22, 1883 (B. Valentine 1883b).

While residing with Chief Smith in Yellow Hill 1882 and 1883, Ben and Eddie Valentine wrote their father relating their observations on members and activities of the Eastern Band. Eddie learned from Chief Smith that at townhouse meetings the Chief was seated in the center, the men on the east side, and the women on the west side (E. Valentine 1883).

In 1882 Eddie wrote:

...I am greatly indebted to the present Chief for allowing me the freedom of his house by which I was enabled to see not only a large number of Indians but also the wisest of the tribe. The Chief, like many others, has white blood in him. He is a man of about 45 years of age and is married to a white woman by whom he has a large number of children. Returning to the Indians in general they are a kind, hospitable & honest people. [E. Valentine 1882a]



Figure 19. Stone pipe and conch shell mask from the Valentine brothers' 1883 excavation at Birdtown Mound (courtesy of Research Laboratories of Archaeology, UNC-CH).

He said that on his way from Osborne's farm, he took the wrong path to Yellow Hill but was put on the right path by an "old Indian" he met along the way. He stated that if you visited a Cherokee home at mealtime the master of the house would be offended if you declined to join them for the meal, believing you were "mad at them" or thought yourself to be better than them. He said that he purposely left his valuables where they could be stolen dozens of times and lost not a single thing. He noted that their costume is much the same as the whites and that most of the women and a few of the men wear red handkerchiefs on the head in the place of hats and bonnets. Men, he revealed, wore shoes or moccasins, but women usually go barefoot, and they carry their children on their backs and carry a large bundle the size of a Saratoga trunk on their heads and with these loads wade the river at all seasons of the year (E. Valentine 1882b).

Their impressions of these events were reported in the August 20, 1883, edition of the *Richmond Dispatch*. They informed the writer of the article that the Indians were civilized and lived in cabins and have their churches and Sunday schools and are mostly devout Baptists, though some still cling to their traditional customs such as the stick ball game and dances.

The dance, held on the ground floor of a one-room cabin, commenced with a circle of men surrounded by a circle of women that was surrounded by another circle of men. As dancing became more lively, the women began to weave in and out between the inner circle of men. Dancing continued all night, and as a dancer became tired, another would replace him or her in the circle. The boys say they joined the dancers to the amusement of the others and when one of them stepped on the foot of a young woman he was sent flying by a well-placed elbow, ending up against the cabin wall. [Anonymous 1883]

Chief Smith told Eddie of an "old Cherokee squaw" who made "old fashioned pots." They visited the woman, and she agreed to make pots for him. Ten days later Eddie collected the pots (Figure 20) and the tools she had used: a mussel shell scraper, a polishing stone, and carved wooden paddles. Eddie was amazed that the pots were in the form and decoration like those they had found in the mounds. He was the first to conclude that some of the pots they had recovered from the mounds were made by the Cherokee (M. Valentine 1884).

Mound Builders vs. Native Americans

During Mann Valentine's day, two competing theories were used to explain the origins and meaning of the thousands of earthen mounds found in the eastern United States. First was the Mound Builder theory, which held that a vanished race with Old World roots had made the mounds and associated artifacts. The basis for this racist argument was that the Native Americans could not have constructed these monuments and associated objects. Josiah Priest listed most of the suggested builders of the mounds and concluded the following:

...some of the ancient nations who may have found their way hither, we perceive a strong possibility, that not only Asiatic nations, very soon after the flood, but that also, all along the different eras of time, different races of men, as Polynesians, Malays, Australasians, Phoenicians, Egyptians, Greeks, Romans, Israelites, Tartars, Scandinavians, Danes, Norwegians, Welch, and Scotch, have colonized different parts of the continent. [Priest 1834]

The second theory held that the mounds were produced by Native Americans and was supported by the likes of Thomas Jefferson, Gates Thurston, John Bartram, Henry Henshaw, and John Wesley Powell. Henshaw wrote the following regarding Mound Builders: "It should also be clearly understood that by its use the writer is not to be considered as committing himself in any way to the theory that the Mound-Builders



Figure 20. Cherokee vessels made for Edward Valentine in 1882 (courtesy of Research Laboratories of Archaeology, UNC-CH).

were of a different race from the North American Indian (Henshaw 1883).

John Wesley Powell stated:

With regard to the mounds so widely scattered between the two oceans, it may be said that the mound building tribes were known in the early history of discovery of this continent and that vestiges of art

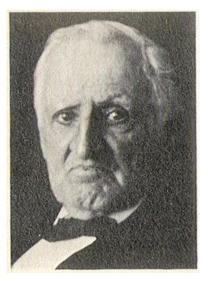


Figure 21. Cyrus Thomas, 1825–1910.

discovered do not excel in any respect the arts of the Indian tribes known to history. There is, therefore, no reason for us to search for an extra liminal origin through lost tribes for the arts discovered in the mounds of North America. [Powell 1881]

The work of Cyrus Thomas (Figure 21) of the Smithsonian Institution effectively destroyed the Mound Builder theory (Thomas 1889, 1894, 1898). Yet, it continues to crop up occasionally (Feder 2006). Forty-nine years ago, Keel (1970) published "Cyrus Thomas and the Mound Builders" that provides an overview of this theoretical debate. By the way, a recent third theory advocated by some is that visitors from outer space are the true Mound Builders.

Archaeological Frauds in the Nineteenth Century

In the latter half of the nineteenth century, several archaeological frauds took place. Some of the more noteworthy are described below. For example, in February 1866 miners found a skull 130 feet below the surface and underneath a layer of lava in a mine on Bald Mountain in Calaveras County, California. J. D. Whitney, the State Geologist of California, determined that the skull belonged to a Pliocene age man, making it the oldest known record of human existence in the New World and suggesting that humans had lived in the Americas much earlier than thought. Other scholars challenged the authenticity of the skull and, as a

Pliocene skull, it was decisively determined to be a fraud. First, its characteristics were too modern to be of Pliocene age as claimed. Furthermore, the sediment attached to it was different from the sediments found in the mine; thus, it had been planted as a practical joke (Anonymous 2019a).

The most famous of these deceptions was the Cardiff Giant, a gigantic ten-foot-tall stone man, discovered on October 16, 1869, in a well being dug on the farm of William C. "Stub" Newell in Cardiff, New York. Some declared that it was one of the giants mentioned in Genesis 6:4, where it says, 'There were giants in the earth in those days." It turned out that the giant was a creation of George Hull who had stonemasons carve the giant and in collusion with cousin Newell buried it on the latter's farm where it was discovered by the well diggers. The giant's discovery caused a sensation and Newell started charging fifty cents to see it. Eventually, Hull sold the giant to a group of Syracuse businessmen for \$37,000, making a profit of about \$35,000 after being moved to Syracuse. Yale paleontologist, Othniel C. Marsh declared it to be a fraud. When P. T. Barnum's offer of \$60,000 for a three-month lease to exhibit it in his New York City museum was refused, he had a plaster replica made and claimed it was the real giant and that Hull's was a fake. Barnum's giant drew bigger crowds than the original fraud (Anonymous 2019b). Hull's giant can be seen at the Farmers' Museum in Cooperstown, New York. Marvin's Marvelous Mechanical Museum in Farmington Hills, Michigan, exhibits the Barnum giant.

In 1877, the Reverend Jacob Gass excavated two engraved tablets on Cook's Farm near Davenport, Iowa (Gass et al. 1886) (Figure 22). A vear later, a third tablet was found on the same farm. One tablet had a series of concentric circles and strange signs that some thought was a kind of zodiac. The other tablet had a series of animals and a tree on one side; the other side sported characters from several different alphabets along the top and a scene thought to be a cremation at the bottom. Gass and one of his friends also discovered a platform pipe, with an image depicting an elephant, in a mound on a neighboring farm. Initially, their authenticity was accepted, but soon, it was questioned. These discoveries would receive national publicity as outstanding art of the Mound Builders. Critics of the discoveries included John Wesley Powell (1881), Henry W. Henshaw (1883) and Cyrus Thomas (Thomas 1890, 1898). Much later, University of Iowa archaeologist Marshall McKusick (1991) argued conclusively that these objects were hoaxes. The tablets, for example, had nail holes that matched those on roof tiles taken from a



Figure 22. Engraved tablets discovered near Davenport, Iowa, 1877.

neighboring building of the Davenport Academy of Natural Sciences and may have been manufactured and planted by some of its members who wished to embarrass Gass and have him expelled from the Academy.

In 1889 John Emmert, a Smithsonian field archaeologist, excavated several mounds on Bat Creek in eastern Tennessee (Thomas 1894:391–394). In Mound 3 of the Tipton Mound Group, he claimed to have recovered the Bat Creek Tablet. This siltstone relic had engraved characters assumed to be writing (Figure 23). Initially, Cyrus Thomas accepted its authenticity, but later he concluded it was a fraud. Once the authenticity was questioned, John Rogan, another Smithsonian field archaeologist, and Emmert became suspects in perpetuating this hoax. Robert Mainfort and Mary Kwas (1991, 2004) discovered that the inscription actually had been copied from an illustration in *General History, Cyclopedia, and Dictionary of Freemasonry*, published in 1870 (Macoy 1870:169) (Figure 24). Mainfort and Kwas concluded that Emmert was responsible for the hoax.

Nonetheless, this was not the end of the story for just a few years ago in the *America Unearthed* TV show, in an episode titled "Lost Relics of the Bible" host Scott Wolter claimed that the stone was the product of Israelites who had migrated to the New World (Wolter 2014). In response to this show, the Department of Anthropology at the Smithsonian Institution issued the following statement concerning the Bat Creek stone:



Figure 23. Bat Creek Tablet from Loudon County, Tennessee (from Thomas 1894:Figure 273; rotated 180 degrees).

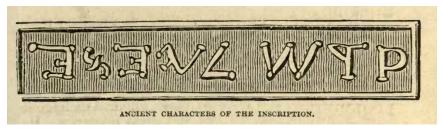


Figure 24. Inscription from *General History*, *Cyclopedia*, and *Dictionary of Freemasonry* (Macoy 1870:169).

While recognizing that a diversity of opinion continues to circulate around the authenticity of the Bat Creek Stone, the curators in the Department of Anthropology at the National Museum of Natural History, Smithsonian Institution, believe that the inscriptions on the artifact are forgeries and that the object is a fake. This opinion is widely shared by other professional archaeologists as represented in the article by Robert Mainfort and Mary Kwas 'The Bat Creek Stone Revisited: A Fraud Exposed.' ...Along with other known fraudulent artifacts, we retain it in our collections as part of the cultural history of archaeological frauds, which were known to be quite popular in the second half of the 19th century. [Homiak 2014]

The Mount Pisgah Hoax

By March 1880, "an old woman" who had walked 10 miles from the Mount Pisgah area in southern Haywood County, presented Mary Osborne with a collection of relics, including a carved-stone image of "a man with a gun" (Figure 25). As reported by A. J. Osborne,



Figure 25. Carved-stone image of a man with a gun from Mount Pisgah (courtesy of Research Laboratories of Archaeology, UNC-CH).

The old woman who works on Gwynn's land has been getting along very well—nearly all the images you find marked graves were brought by her—Also, those eleven not labeled—she says she found them in another place. Forgot to ask her whose land they came from but will ask her when I see her.... The old women who hunts the graves on Gwynn's land, told me several times that she has found something like hearths, she would raise them and find objects under them. Then find more rock, raise it, and find more images. But she is quite ignorant—so I do not know whether to believe her or not. (Did

not know whether to give implicit confidence to the whole of her account.) Mrs. O. [is] very shrewd herself and requiring always an exact account—cross-questioning like a lawyer, imposture, or departure from a strict line of information, would frequently cause her to reject all the testimony of one of her hunters—with the words— "then you don't know anything about it, and why didn't you say so before"—or "you are a liar and don't come here with any of your tales." She would, also, on the other hand, say to me, "so and so is honest" or "you can believe anything he or she says." [B. Valentine 1880]

Mary did not like the carving of "the man with the gun" but kept it and sent it along in a shipment to Valentine. Mann was elated to find this relic and immediately instructed Osborne to go to Pisgah and find more of them. On April 21, 1880, Osborne reported "[I] have made a trip of two days up to Pigeon Creek & South Hominy Creek visiting the banks where they were digging out the earthen & Soapstone ware. I made some investigations & got out a very nice soapstone pot, some images, pipe, etc. I spent for the relics \$2.95."

Throughout the rest of the year, Osborne made several more trips to the Mount Pisgah area. He dug at Burnett's Hill and Miller's Hill, adding a significant number of images to the collection (Figure 26). These carvings of humans and animals are consistently referred to as "images" in the Valentine Papers and Osborne Papers.

Osborne told Mann that images were found at the adjacent Burnett, Miller, Pless, and Gwyn farms at the foot of Mount Pisgah along the East Fork of the Pigeon River. The Burnett, Pless, and Miller families were related by blood or marriage. Merritt Burnett married Isaac Pless's daughter, Lavina. Merritt's sister, Nancy Minerva, married John Wesley Miller. Thus, the Mount Pisgah fraud seems to have been a family affair! James Gwyn, their neighbor across the river who acquired his farm in 1874, was a successful farmer and active in public affairs of Haywood County. His home, Springdale, was placed on the National Register of Historic Places in 1984 (Cotton 1984).

To assure himself of the facts concerning these astounding discoveries, Mann and Eddie traveled to Osborne's on July 20, 1880, and with Osborne went to Mount Pisgah. There are still Pless and Burnett families who have retained portions of the property that Osborne and Valentine would have visited (Anita Finger-Smith personal communication 2017). While at Mount Pisgah they dug at Burnett's

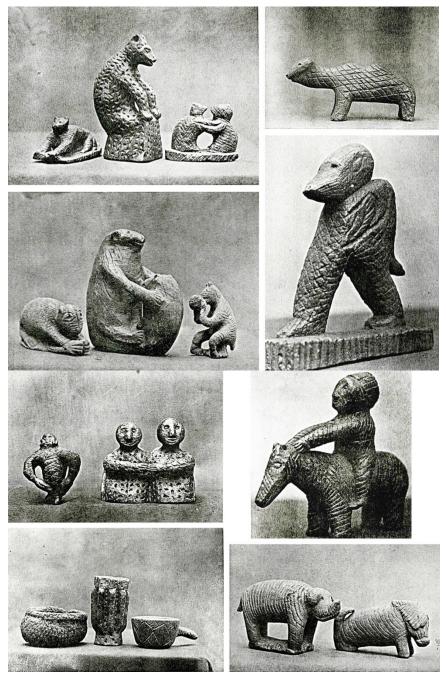


Figure 26. Bogus relics purchased by the Valentines from Mount Pisgah (courtesy of Research Laboratories of Archaeology, UNC-CH).

farm and bought additional images from the Millers. Mann describes this encounter as follows:

There are within the cabin two barefooted young women, with uncombed hair; they are standing up behind an old woman squatted on a stool besides a child's crib. My son, & myself go in with boy Miller, who was with us up on the hill, and whose home this is, he wishes to show us what objects he and the women-his mother and sisters—have lately dug up out of the hill above.... Presently the boy brought out a split oak basket and some bundles of dirty dilapidated rags and spread out some on a bench before me. I looked at the ungainly display and shook my head & turned away, when my eyes met the old woman's whose [eyes] filled with the most intense, eager [stare]—I had taken out my purse for the little money she was to secure. But I hesitated, for the things were so much covered in closely adhering earth that for myself I could not tell what they would or [could] make with careful cleaning. And I was curious to see how [illegible] and these people would come to an agreement about the [price] for them. [M. Valentine 1880]

By late November Osborne concluded that the Burnett and Pless farms had been "worked out" (Osborne 1880c).

In early 1881, Mann and Edward traveled to Washington with about 100 of the Mount Pisgah images and photographs of others and met with Spencer Baird, Secretary of the Smithsonian Institution, and archaeologist Dr. Charles Rau. Images of bears, a rabbit, turtles, birds, a man with a gun, and a rhinoceros were among the ones examined at that time (Figure 26). Rau pronounced them as "Frauds, I know them to be, for nothing like them has ever been found in this country" (B. Valentine 1882d).

Based on his trust in Osborne's description of the context of the images he had recovered, as well as his own observations of the area, Mann countered that because Rau had not seen them in other places did not mean that they were not authentic relics. Despite this, Mary Osborne had her own doubts about their authenticity, and Edward would later become suspicious as well.

The meeting with Baird and Rau spawned two interesting activities. First, Mann and Ben traveled with two dozen images and about 100 photographs to England and Germany where he presented them to the Anthropological Institute of Great Britain and Ireland and the Berlin Anthropological Society for Anthropology, Ethnology, and Prehistory (M. Valentine 1882b).

A. H. Keane (of the British institute subsequently published a paper regarding this inspection of the Mount Pisgah relics (Keane 1883). Keane and the eminent archaeologist, Sir John Evans, agreed on the following points: (1) there was evidence that the relics had been made with metal tools; (2) the evidence was insufficient to prove the genuineness or their age; (3) relics portraying a coffee pot, a cup with handle, a chair, and a gun of Euro-American types argued for a recent date of manufacture; and (4) the workmanship and character were dissimilar to known art styles of Native Americans. I have found nothing regarding the outcome of the Berlin visit.

The second activity generated by the "show and tell" is that the Smithsonian sent John Emmert to Mount Pisgah where he bought images that were made by Burnett. Burnett also told him that he had made and sold images to Valentine. Mann was informed of this business by an unnamed Smithsonian "attendant" in May 1883, who wrote that "the Smithsonian has two small collections they acquired for \$27.00 for a bear and other animals and \$12.00 for pipes [totaling approximately \$1025 in 2018 dollars]—these are imitations of yours—these objects are made by chiseling" (B. Valentine 1883).

Cyrus Thomas (1894:346–347) of the Smithsonian commented on Emmert's trip in the *Twelfth Annual Report of the Bureau of Ethnology* as follows (Figure 27):

An article in the Journal of the Anthropological Institute of Great Britain and Ireland for June, 1882, in regard to some singular works of art found in Haywood county, having excited the curiosity of our antiquarians, Mr. Emmert was sent into that region to procure, if possible, some specimens of this singular class of articles and to ascertain whether they were ancient or modern. After considerable difficulty, he was entirely successful in his effort. He ascertained that these articles were made from the soapstone found in that region by some persons who had learned how to give them the appearance of age. This is done by placing them, after being carved, in running water which is tinctured with iron, as most of the streams of that region are. As a proof the correctness of his statement, Mr. Emmert had the same parties who stated they had made some articles for Mr. Valentine make quite a number of similar articles for the Bureau.

In addition to the appraisal of Sir John Evans in London, the accumulation of the following facts forced Mann to accept he had been fooled: (1) no skeletal remains were found in the "graves" containing images; (2) there was an absence of arrowheads or other artifacts "in

GENESIS OF CHEROKEE ARCHAEOLOGY

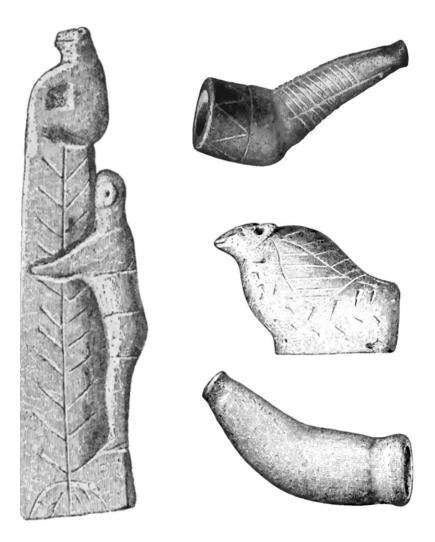


Figure 27. Bogus relics purchased in the Mount Pisgah area by John Emmert for the Smithsonian Institution (from Thomas 1894:Figures 225, 226, and 227).

ready contact with the images;" (3) Mann learned Burnett was selling images in Asheville; and (4) the Smithsonian agent had obtained identical relics from Mount Pisgah. Osborne also mentioned that the soil where he found the images at the Pless farm was different from the surrounding soil, suggesting that it had been recently turned over to plant the fakes. He also noted that some of the images were covered with

grease and soot. Soil bacteria likely would have destroyed the grease in a relatively short time.

Once Mann realized he had been the victim of this hoax, he immediately tried to determine who was responsible for it. He sent Osborne to try to discover who had made the images. Osborne's efforts were inconclusive. Mann proposed several other strategies, including sending a young lawyer from Asheville to collect affidavits from the residents, but did not act on this because he realized that the people would assume he intended legal remedies and would not cooperate. He also suggested that some young man from Waynesville be sent to Mount Pisgah to romance a young lady and thereby find the truth. Although this strategy was not acted upon, he commented that "[I] do not think a mountain affair will hurt anyway a Waynesville man or a Pisgah girl" (M. Valentine 1884).

In the end, Mann suspected that Merritt Burnett was the principal culprit. Burnett could make wagon wheels from wood and was known to be handy with tools. In 1950, this suspicion was confirmed when Louise Daura visited Burnett's son, Charlie, at Mount Pisgah. Seeing one of the carvings, he said:

My father made that.... He explained that it took his father about a day to carve [it] out of soapstone that he quarried on his own farm. He'd sit down anywhere and do a sculpture with his pocket knife. Then he would grease it, blacken it with smoke from a pine knot and bury it. He'd usually have the figures dug up by his sister, Betsy Franklin.... He had found some real ones in the fields and made some like 'em.... He sold the originals along with the fakes to Mr. Osborne. [Greenway n.d.]

I have been able to determine the provenience of only 114 of the relics. Burnett's farm produced 52 (46%), two (2%) were from Gwyn's farm, and 39 (34%) came from Miller's hill (Figure 28). The remaining 21 objects were noted as coming from "near Pisgah" (16, 14%), "Pisgah Creek" (4, 3%), and "Pisgah" (1, 1%).

The precise number of images and fake artifacts the Valentines collected from Mount Pisgah is unknown, but the figures given in the Valentine Papers indicate they numbered more than 1,000. The majority were made of soapstone, although some are said to be made of sandstone, which does not occur in the geological deposits of western North Carolina. Stylistic differences among the images suggest to me that at least two people were making them. It has been impossible to

GENESIS OF CHEROKEE ARCHAEOLOGY

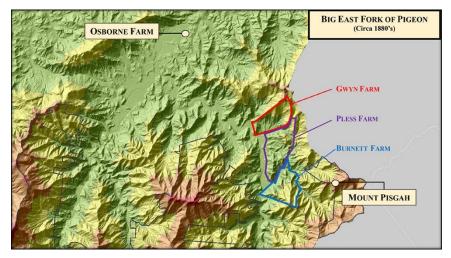


Figure 28. Map showing the Gwynn, Pless, and Burnett farms along Big East Fork of Pigeon River near Mount Pisgah in eastern Haywood County, North Carolina.

determine how much this swindle cost Valentine, but I suspect would be a couple of thousand dollars today.

Final Comments

In my judgment, the major contributions of the Valentines' archaeological endeavors are that they, Osborne, and McCombs recorded their efforts and the provenience of the materials that they found, although not to today's standards. Ben and Eddie made some field notes of their excavations whereas Osborne and McCombs appear to have written summaries of their activities in the evenings or over the weekend. The Valentines recognized that the Cherokee made some of the artifacts they recovered from the mounds. With the knowledge gained in the twentieth Century, their collection has allowed us to more fully understand many aspects of Cherokee culture, especially during the fifteenth and subsequent centuries.

Acknowledgments

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THE JASPER ALLEN MOUND: NEW INSIGHTS FROM THE VALENTINE COLLECTION

by

Benjamin A. Steere

Abstract

In December 1881, a small crew of workers led by A. J. Osborne, a local representative of the Valentine Museum of Richmond, Virginia, completely excavated a small mound on a farm owned by Daniel "Jasper" Allen near the town of Sylva in Jackson County, North Carolina. The mound is best known for a small but impressive collection of Mississippian-period artifacts housed at the Research Laboratories of Archaeology at the University of North Carolina-Chapel Hill (UNC RLA). These artifacts include two well-preserved Middle Cumberland region style negative-painted effigy bottles, shell beads, and a Tennessee-style chunkey stone that likely date to the late fourteenth or early fifteenth centuries. In this paper I offer a summary description of archival records and artifacts associated with the Jasper Allen Mound and compare it to Mississippian sites from neighboring states with similar artifact assemblages. While they are highly problematic by today's standards, the excavation records and surviving artifacts from the Jasper Allen Mound may provide clues for understanding social and cultural change in the Cherokee heartland of western North Carolina.

In December 1881, a small crew of workers led by A. J. Osborne, a local representative of the Valentine Museum of Richmond, Virginia, completely excavated a small mound on a farm owned by Daniel "Jasper" Allen near the town of Sylva in Jackson County, North Carolina (Keel 2019; Ward and Davis 1999:6–8). The mound is best known for a small but impressive collection of Mississippian-period artifacts housed at the Research Laboratories of Archaeology at the University of North Carolina-Chapel Hill (UNC-RLA). These artifacts were recovered in association with graves and include two well-preserved negative-painted effigy bottles, shell beads, and a Tennessee-style chunkey stone (Davis et al. 1998:21; Steere 2015:206) that likely date to the late fourteenth or early fifteenth centuries, a period of time that archaeologists in the region have associated with the latter years of the Pisgah phase and the beginning of the Qualla phase (Dickens 1976; Moore 1986; Rodning

JASPER ALLEN MOUND

2009; Ward and Davis 1999:158–190). However, because the mound was leveled, and because the artifacts were initially housed in a small art museum early in the history of archaeological research in North Carolina, the mound is poorly understood by archaeologists and local community members.

The artifacts associated with the Jasper Allen Mound stand out as exotic goods when compared with collections from nearby single-mound sites in western North Carolina, and they bear at least a superficial similarity to clusters of artifacts recovered from graves at much larger Mississippian-period mound sites in the Southeast, including the Toqua site (40MR6) in eastern Tennessee and the Bell Field (9MU101) and Little Egypt (9MU102) sites in northern Georgia (Hally 1978; Kelly 1996; Koerner et al. 2011; Polhemus 1987).

In this paper I offer a summary description of archival records and artifacts associated with the Jasper Allen Mound and compare it to Mississippian sites from neighboring states with similar artifact assemblages. While they are highly problematic by today's standards, the excavation records and surviving artifacts from the Jasper Allen Mound may provide clues for understanding social and cultural change in the Cherokee heartland of western North Carolina.

In the late 1870s and early 1880s, Mann S. Valentine and his sons, Edward and Benjamin Valentine, directed expeditions in Haywood, Jackson, Swain, and Cherokee counties in southwestern North Carolina, often with the help of local residents (Keel 2019; Ward and Davis 1999:6-7). The Valentines and their associates "opened" the Peachtree or McCombs Mound (31CE1), the Garden Creek Mound No. 2 (31HW2), the Wells Mound (possibly near 31HW5), the Kituwah Mound (31SW2), the Nununyi Mound (31SW3), the Birdtown Mound (31SW6), and the Cullowhee Mound (31JK2), and they completely excavated the Jasper Allen Mound (Steere 2015:200; Ward and Davis 1999:6–7) (see Figure 1 for a map of the approximate location of the Jasper Allen mound in relation to other Mississippian-period mound sites in western North Carolina). By the time of the Bureau of American Ethnology's "mound builder" expedition, the Jasper Allen Mound had already been leveled and could no longer be easily located. This history plays out in the pages of Cyrus Thomas's Catalogue of Prehistoric Works East of the Rocky Mountains (1891). In this volume, James Mooney, best known for his ethnographic work with the Eastern Band of Cherokee Indians, provides only a general location of the mound, noting that it is "on Scott's between the railroad and the creek, about 5 miles

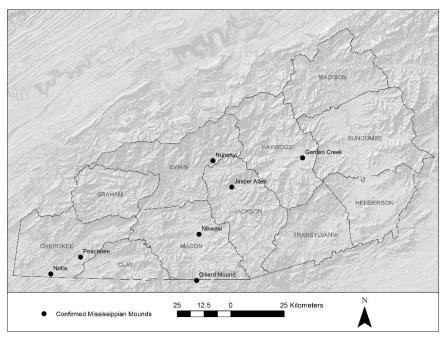


Figure 1. Map of western North Carolina counties showing the approximate locations of the Jasper Allen Mound and other confirmed Mississippian mounds.

north of Sylva" (Thomas 1891:156). On an 1886 USGS quad map which he annotated, Mooney does not record a precise location for the Jasper Allen Mound, as he does other well-known Cherokee cultural sites such as Judaculla Rock and the Kituwah Mound. Instead, a note in the margin of the map contains the same information recorded in Thomas' volume ("between the railroad the creek, about 5 miles north of Sylva").

A. J. Osborne, a Haywood County resident and local agent of the Valentines, reports that he completely excavated the Jasper Allen Mound in December, 1881. In a letter to B. B. Valentine describing the mound exploration, Osborne writes that the mound is located on "Scots Creek 5 miles north of Webster," on the farm of Jasper Allen, and goes on to provide a narrative description of the mound excavation. This letter is transcribed in its entirety below, and errors in spelling, grammar, and composition have been preserved in their original form. Osborne's (1881) account also provides details on a failed attempt to obtain permission to excavate the Cullowhee Mound (31JK2) before moving north to explore the Jasper Allen Mound:

JASPER ALLEN MOUND

Scots Creek, N.C. Dec. 14th – 1881 Mr. B. B. Valentine

Dear Sir

I left home the morning of the 5" day of December, & got over on head of Scots Creek 18 miles from home the first day. The second day past through Webster, Jackson County to Cullowhee Creek, for the purpose of getting the Cullowhee Mound to open. Visiting Mr. Dave Rodgers for the purpose of getting his mound to open (this being the third day from home) but not finding him at home I rode up and down the Valley collecting such relics as I could find the citizens had taken care of – found Mr. Rodgers late in the evening, but would not consent for me to open his mound untill after next harvest. I told him I would pay him for the amount of wheat it would make on the dimensions of the mound the next season, which would probable not make much more than one bushel. But it was all of no avail. I was anxious to open that one. It was such a size mound as the one your Father and myself was on in Haywood on Plott's farm.

(4" day). I came about ½ mile from the Cullowhe Mound to the Bank of the Tuckasigie River, just a few yards above the mouth of Cullowhee Creek, between the river bank and road, I found a bank seemingly to have been a mound nearly washed a-way by the river when at high tide. I got permission from the owner to dig. I got one hand to help me, and dug the bank out, but about one and a half (or two) feet under the soil we found where their had been two or three Pots. The hard pressure of the dirt on them had Broken them, It looked like stock had tramped over top of the bank, we found a little scraper. I then went down again ½ mile of Webster and stayed all night, & my bill the next morning was 50 cents. The first night I had been charged since I left home.

(5" day) Came to Webster. Bought a box, Packed the relics I had gathered from the Previous days, together with the Broken Pottery and left them with (Mr. Spake) a merchant & hired him to send them to Pigeon River. Mr. Buckhannon, the Merchant in Webster that formerly had been Collecting Relics for me, had a Collection for me, But when I come to look over them and price them, he asked me a price beyond reason as I thought as much again as I am authorized to pay by you. So I had to pass them by. He said he could get more than my offer by four dollars next summer. I then came down on Scots Creek five miles north of Webster, and got permission from Mr. Jasper Alen to open a mound on his farm. The mound is forty six ft in diameter each way across the center. I went out and engaged five hands to work on the mound the next day. This mound was also ceded in wheat, and Mr. Alen said I must pay him two dollars damage

for his wheat crop and pay him 60 cents per day for my board. I found out also, I would have to pay hands $62 \frac{1}{2}$ cents per day for their labor, they finding their own tools and board themselves.

(My sixth day) Commenced work on mound to cut a pit 40 ft long 20 ft from center of mound on the side of the mound a little south of east (as near as I could get at directions without a compass) The Pit we sunk was from five to six feet deep and about the same in width and we are turning the mound completely over striking nothing of interest the first day, except the different layers of earth and clays and some burnt clay as we found in the McCombs Mound. We find pieces of pottery, charcoal, ashes interspersed occasionally with badly decayed bones.

(Monday the seventh day of my work from home) put in about 2/3 of a day work. The hands called it one half day only so I let them call it that. It rained and stopped us. Pass through about the same [illegible word] as Saturday.

(Tuesday the 8th day's work) put in the whole day with 4 ¹/₂ hands, finding about as the other days, except we run on a floor of rock; following that up, we come to a basin formed of flat rocks and their found decayed bones, decayed beads, and a few round ones. There were found about 8 feet from the center of the mound in a south direction 5 feet from top of mound, and then again about 10 inches northwest and above the last described objects (about 6 inches in height) we came to another platform of Rocks. I will just mention here the dirt from above caved off and exposed a vessel, the side breaking off about one third of the vessel. Showing Plainly and precisely the same kind of a vessel as was described in the McCombs Mound. I took a spade and went to work myself, and cleared away all the earth from around it working carefully, except detaching it from the earth on the rock platform made to support it. The vessel was about 20 inches in diameter across the vessel at the top from inside of the rim to the opposite side and was about 11 inches in depth – filled with ashes, burnt bones and coal. But when we went to try to take the vessel down we discovered another crack through the remaining part of the vessel. The vessel looked as if it had been formed by scooping out the earth taking clay mortar and smoothing around the scooped out form and then burning the inside, & I do wish I could have saved the vessel for you. I have several large pieces I am going to pack and ship to you.

(Wednesday the ninth day) has been a very rainy day. Could not work on the mound But I myself have been busy making boxes, packing relics that I bought here in this neighborhood such nice weights and some other objects of interest. I bought you one pot and one dirt basin which is, I think, is very ancient, whilst I think the pot

JASPER ALLEN MOUND

so far as you may call it is of Cherokee Indian origin. I have a Cherokee Indian tommyhawk made of Iron. Which you told me to get when I was up at Richmond. I will get you a blow-gun, and a bow & arrow from the Cherokees when I get down in the nation. But will finish the mound first.

Thursday the 10th day from home. Worked six hands. We found one skeleton, his bones badly decayed, and by this skeleton we found five nice weights, thoroughly polished, a piece of terrapin shell partly decayed, one arrow point. There promiscuously through the mound charcoal ashes a piece or two mica, and other bones, as we did previous days.

Friday 11th day work from home. Worked six hands. The first object we found in digging was a stone mortar or basin as they are called, as fine as the one Mr. Goodale's that he bought in Haywood and showed you. We found this near a skeleton's foot. Then when we found the skeleton we followed until we came to the skull. On one side of his skull was a conch shell (large one) pipe, and a vessel, which was broken by the dirt coming from above him on it. But in trying to cement the pieces I find extending from the tip end of the vessel the image of a man with a crown upon his head. On the other side of his skull I find a jug shaped vessel with images of four persons extended from it with (4) three crowned heads and other head not crowned, with a large conk shell, and about the neck hones an ornament made of bone, badly decayed, and some bone beads. We came on another skeleton nearer the center but found but some beads. Then at east or a little north of east in the mound we find a hearth of rocks charcoal and ashes. Then nearer the center from east to west of mound, a stone partly broken like a twine twister as it is called sometimes, and arrow points.

I would have written to you sooner but have not been handy to mail facilities. I came very near coming to the conclusion to stop work yesterday and going to Asheville and telegraphing you to come here at once, but it being so near Christmas, I did not know whether you would like to come or not. I then concluded that I would not do so, and try to do the best I can for you. More again.

A. J. Osborne

The artifacts recovered from the Jasper Allen Mound were taken to the Valentine Art Museum, where they were displayed alongside other artifacts from the Valentines' excavations in western North Carolina (Valentine et al. 1889). The artifacts were eventually deaccessioned from the Valentine museum and transferred to the UNC-RLA, where they are curated today (Bennie Keel, personal communication 2018).

For any archaeologist, and particularly for archaeologists who work closely with descendant communities, Osborne's ethical and methodological approaches are deeply concerning; but they are in keeping with late nineteenth-century American disregard for the connection between living Native American people and their cultural patrimony (Thomas 2001). With this troubling context in mind, the value of this little-studied account lies in its potential to put an important Mississippian-period site back on extant archaeological maps. When augmented with additional archival research and archaeological survey, the information in Osborne's account can be used to determine an approximate location for Jasper Allen's farm.

Relocating the Jasper Allen Mound

Records of land sales on file at the Jackson County register of deeds indicate that between 1854 and 1900, Daniel J. ("Jasper") Allen bought and sold hundreds of acres of land on Scott Creek. Most of his holdings appear to have been situated north and east of Sylva, and west and south of the confluence of Scott Creek and Carson's Branch. The descriptions provided by Osborne and Mooney and the available land records suggest that Jasper Allen's farm was located on the north side of Scott Creek near the confluence with Allen's Branch. Jasper Allen is buried not far from his farm, in the Old Field Cemetery east of Sylva. An obituary published in the Jackson County Journal on August 13, 1915, indicates that Jasper Allen was a prominent member of the Sylva community, but lived "some distance off" from the fledging town. This offers further corroboration for the general location of his farm, and by extension, the mound site.

A phase I archaeological survey on a small section of town-owned property on the north bank of Scott Creek and interviews with long-term Sylva residents suggest that much of the terrain in the probable location of the mound has been cut, filled, and graded for commercial development. A very small (ca. 60 by 20 m) archaeological site with Qualla phase pottery and other unidentified grit-tempered ceramics (31JK562) was identified at this location in 2012 (Steere 2013:91). Site 31JK562 may represent a portion of a much larger late prehistoric occupation area associated with the Jasper Allen Mound. While this location is approximate, it seems likely that the mound was located near the confluence of Scott Creek and Allen's Branch (see Figure 2).

JASPER ALLEN MOUND

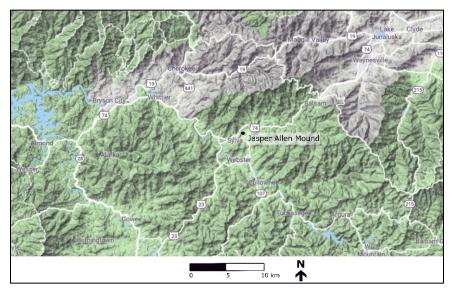


Figure 2. Map showing the approximate location of the Jasper Allen Mound near Sylva in Jackson County, North Carolina.

The Jasper Allen Mound Excavation and Collections

In addition to providing an approximate location for mound, Osborne's narrative includes general information about the characteristics and contents of the mound. He states that the mound measured 46 feet (14.0 m) in diameter, and that he and his crew of five workers excavated a trench 40 feet (12.2 m) long and 5 to 6 feet (1.5-2 m) deep, 20 feet (6.1 m) from the center to the southeast edge of the mound. They encountered "different layers of earth and clays, and some burnt clay as we found in the McCombs Mound," and also found a prepared rock floor, pottery, charcoal, ash, and decayed bone (Osborne 1881). Figure 3, a rough profile drawing of the mound, indicates that at least two distinct layers of mound fill were discernible. These observations seem to indicate that the mound had at least two distinct zones of fill. The "McCombs Mound" mentioned by Osborne is better known as the Peachtree Mound (31CE1). While the Peachtree Mound was much larger than the Jasper Allen Mound, it also contained distinct layers of fill and the burned remains of prepared clay floors, as well as a rock mantle and stone box graves (Setzler and Jennings 1941). Osborne also notes the approximate position of artifacts and graves, and includes sketches of some artifacts. Several days into their excavation, Osborne and his crew encountered a burial containing a conch shell, a painted

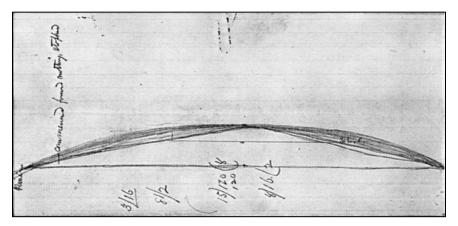


Figure 3. Profile drawing of the Jasper Allen Mound from the Valentine Museum records. Courtesy of the Research Laboratories of Archaeology, University of North Carolina, Chapel Hill.

Ceramics	Stone Discs and Chipped Stone	Shell	Other Artifacts
Negative- painted effigy vessel with four heads and a hooded, human- head effigy bottle	One white Tennessee-style discoidal (chunkey stone), 3 large stemmed projectile points, a schist gorget, and 5 polished shell disks	Conch shell with missing back (possibly removed for making a gorget), conch shell fragments, columella shell beads, mussel shell	Red ochre

Table 1	Grave	Goode	Recovered	from t	he Issne	r Allen Mound.
Table 1.	Grave	Goods	Recovered	nom t	ne jaspe	i Anen Mound.

effigy bottle with four human heads, and a hooded human-head effigy bottle.

Table 1 summarizes the ceramic, stone, shell, and other artifacts recovered from the excavation; these are curated at the UNC-RLA and can be viewed through their digital collection website. Like many antiquarian excavators of his era, Osborne did not systematically collect artifacts, keeping only a small number of fancy ceramic, stone, and shell grave goods. Thus, more quotidian ceramics that would be helpful for defining the chronology of the mound are not available for study.

The two ceramic bottles recovered from the mound bear at least superficial similarities to late fourteenth-century bottles from the Middle

JASPER ALLEN MOUND

Cumberland region. The hooded water bottle (see Keel 2019:Figure 14) bears a particularly strong similarity to a vessel found near Nashville and documented in Gates P. Thruston's 1890 publication, *The Antiquities of Tennessee and Adjacent States* (Thruston 1890:Plate VIII). This bottle, which depicts a person whose head is topped with a prominent, foursided, pyramidal adornment, may represent the Wild Boy of twin narratives. As David Dye (2004:194) writes in one study of Mississippian art related to warfare, "Wild boy is a Thunderer who can cause lightning. In one story, Wild Boy is decapitated and replaces his own head with a rattle, becoming a rattle head."

The negative-painted, four-human-head effigy bottle recovered from the mound (see Keel 2019:Figure 14) also has similarities with Middle Cumberland vessels and bears a strong resemblance to effigy bottles recovered from Dallas phase contexts in eastern Tennessee (see for example Polhemus 1987:683, Figure 8.39). The effigy bottle found in the Jasper Allen Mound is nearly identical to a vessel found in association with Level H burials in Mound A at Toqua and with burials in the Dallas Mound (Koerner et al. 2011:139–140; Lewis et al. 1995). Lynne Sullivan and colleagues extrapolate the use dates for Level H of the Toqua mound as AD 1390–1410 (Koerner et al. 2011:142), and recently reported AMS dates for the Dallas phase in eastern Tennessee fall in the late fourteenth and early fifteenth centuries (Sullivan 2007).

A human-head effigy bottle from the Bell Field site (9MU101) on the Coosawattee River in northwest Georgia (Kelly 1996) is also nearly identical to the Dallas phase effigy vessel illustrated in Polhemus's report on Toqua (Polhemus 1987:683, Figure 8.39). Hally (1996) dates the pottery collection from the mound at Bell Field to the late-fourteenth and early-fifteenth century Savannah phase. He also records a four-headed effigy bottle in a burial from the nearby Little Egypt site (9MU102) (Hally 1978). Given their strong similarities with ceramics from the Nashville area, it seems plausible that the bottles from Bell Field and Toqua may have come from the Middle Cumberland region, or were crafted elsewhere by potters with strong social ties to that region. The ceramics from the Jasper Allen Mound may then be part of a large pattern of artifacts from the Middle Cumberland region found in latefourteenth and early-fifteenth-century sites in Tennessee, Georgia, and perhaps now, North Carolina. Their appearance outside the Middle Cumberland region may be related to the collapse of Cahokia and the series of droughts leading up to the depopulation of the North American

mid-continent known as the Vacant Quarter phenomenon (Willams 1983; Krus and Cobb 2018).

In addition to the ceramics and stone artifacts, shell artifacts including a conch shell with a missing back (perhaps used to make a gorget) and columella shell beads were recovered from the mound. Similar suites of artifacts associated with the Southeastern Ceremonial Complex (King 2007; Sullivan 2007) have been found at the Toqua, Little Egypt, and Bell Field sites (Hally 1978; Kelly 1996; Koerner et al. 2011; Polhemus 1987). Table 2 provides a summary description of artifacts recovered from graves at these sites.

The large white discoidal stone (see Figure 4) appears to be a Tennessee-style chunkey stone, which are very rare and mostly found in unprovenienced collections (Dye and Bartholomew 2017). Dye suggests that these objects may have been placed in medicine lodges or other special purpose buildings away from Mississippian towns, possibly in locations related to controlling trade and exchange (Dye and Bartholomew 2017). That is a compelling interpretation given the location of the Jasper Allen Mound, which would be an unusual spot for a large Mississippian village, but which is positioned along a primary entrance to the Tuckasegee River Valley. The headwaters of Scott Creek are in the Balsam mountains, near Balsam Gap. Travelers from the east, coming out of the Pigeon River or Richland Creek drainages near Canton and Waynesville, North Carolina, could have passed by this location on their way into the Tuckasegee River valley.

In another example of frustrating *fin de siècle* site loss, field notes recorded in 1914 by the amateur archaeologist Robert Dewar Wainwright indicate that a similar small, Mississippian-period burial mound may have been placed at an analogous location along the Valley River east of Andrews, North Carolina (Steere et al. 2012:26). In the summer of 1914, Wainwright carried out an excavation on the property of S. T. Conley, two miles east of Andrews, close to the Southern railroad, on a slight rise in the floodplain of the Valley River. He uncovered stone slabs, an apparent shell gorget, and columella beads (Wainwright 1914:8). According to the landowner, the location was once a mound several feet high, but had been plowed down. There are no previous records of a mound in this vicinity. Current site file records indicate that the closest known site, 31CE55, was recorded during the Cherokee Project, and there was no obvious evidence of a mound at this location in the 1960s. However, Wainwright's discovery suggests that he may have encountered the remnant of a previously excavated

Site	Ceramics	Stone Discs and Chipped Stone	Shell	Other Artifacts
Toqua: Burial 89	Shell-tempered, negative-painted modeled human effigy bottle; wide-	Two stone discoidals, projectile points, polished	Two marine shell cups	Flintknapping tools, socketed bone spear
(30-40 yr old male)	mouth bottle	stone celt	4	point
Toqua:	Dog effigy negative-painted bottle;	"Half dollar"-sized	Marine shell	Serpentine sheet
Burial 156	four-head-effigy negative-painted	discoidal	beads and ear	copper, turtle shell
(A: 15-18 yr	bottle; burnished blackware vessel		pins	rattles
old female;	with scalloped rim, with turtle shell			
B: 11-13 yr	rattles; inverted burnished black-			
old male)	ware Middle Cumberland bowl with			
	hunch-backed female figure on rim			
Little Egypt:	Dallas modeled water bottle with	None	None	None
Burial 6	human-head effigy with square,			
(40+ yr old	tiered hair arrangement (plus 5 other			
male)	vessels: 2 Lamar Bold Incised, 2			
	Dallas Incised Jars, 1 Moundville			
	Incised)			
Bell Field:	Four-headed effigy vessel; Dallas	Carved sandstone pipe,	Shell beads	Mica, red ochre,
Burial 13	bowl with human head effigy on rim	celt, flint blade, projectile		"saw fish" jaw
(5 adults)		point (Dallas "burial		
		points"), galena cubes		

Table 2. Grave Goods from Comparative Mississippian-period Sites.



Figure 4. Tennessee-style chunkey stone from the Jasper Allen Mound.

Mississippian-period mound. If this site was a mound remnant, it would have stood in a prominent location near the eastern edge of the valley, perhaps also marking an important node on the landscape for travelers entering or leaving the Valley River watershed.

The landscape around the Jasper Allen Mound has been subject to a great deal of cutting and grading for construction, so while there may be hope of finding sites contemporaneous with the mound nearby, it is likely that what remains of the footprint of the mound was razed in the context of mid-twentieth century development along Scott Creek. However, even if all that remain of the mound are the field records and the associated artifacts, some cautious interpretations can be made.

Discussion and Conclusions

In his excavation records, Osborne notes that the mound was 46 feet (14 meters) in diameter and five feet (1.5 meters) tall. A late-fourteenthcentury mound this small, on a relatively narrow stretch of floodplain

JASPER ALLEN MOUND

like Scott Creek, is unlikely to fit the mold of a platform mound marking the center of a polity (see Hally 1996). Large Mississippian-period mound sites nearby include Kituwah and Nununyi to the north on the Oconaluftee River, the Pisgah phase mound and village at Garden Creek to the east, and the Nikwasi mound to the southwest on the Little Tennessee (Dickens 1976; Rodning 2015; Steere 2015). There are no precise dates for the mounds at Kituwah, Nununyi, and Nikwasi, but excavations from village areas near the mounds suggest Pisgah and Qualla phase occupations, so there is a chance that the Jasper Allen Mound may have been contemporaneous with one or more of these sites. The artifact assemblage recovered from the Jasper Allen Mound-Middle Cumberland style ceramics, a chunkey stone, and shell-bear striking resemblances to grave goods associated with individuals at much larger mound sites, such as Bell Field, Little Egypt, and Toqua. In sum, the effigy bottles and other artifacts in the Jasper Allen collection suggest a late fourteenth to early fifteenth century use-life, and point to connections and interaction with people from the Middle Cumberland region, eastern Tennessee, and northern Georgia.

While the Valentine records and collections can be used to determine the location and basic nature of the Jasper Allen Mound, important questions remain. What accounts for the presence of these fancy artifacts at a small site on the northern edge of the Southern Appalachian Mississippian world? Were these artifacts made by local artisans, were they acquired through trade and exchange, or do they represent the actual movement of people into western North Carolina from the west, representatives of the broader migrations of people out of the Middle Cumberland region associated with the Vacant Quarter phenomenon? Moreover, the size and contents of the Jasper Allen Mound do not conform with what might be considered the usual template for Pisgah and Qualla phase mounds and townhouses, respectively. Explaining the presence of this unusual mound, located in an unlikely place, may lead to a more nuanced understanding of cultural and social dynamics in western North Carolina during the late fourteenth and early fifteenth centuries.

The relatively narrow drainage of Scott Creek seems like a very unusual place to find such ritually charged artifacts. The theory that Tennessee-style discoidals are intentionally placed at some distance from Mississippian towns is certainly compelling in this case and merits further testing (Dye and Bartholomew 2017). A logical next step for understanding the Jasper Allen Mound would be to carry out

nondestructive sourcing of the chunkey stone to determine if it was crafted from materials from eastern Tennessee. Additional archaeological survey along the north side of Scott Creek, which is mostly private land but has been less badly damaged by development, may also help place the mound in a better local and regional context.

It is also instructive to draw on traditional Cherokee ideas about mounds to interpret the Jasper Allen Mound. In his conversations with James Mooney, the Cherokee elder Swimmer stated that large mounds, like Kituwah and Nikwasi, contained everlasting sacred fires, which continued to burn into the nineteenth century (Duncan and Riggs 2003:146–148; Mooney 1900:396). From this perspective, mounds are living monuments, vital places that sanctify Cherokee land and link Cherokee people with their ancestors. Today, the town of Sylva and the land along much of Scott Creek bear the scars of nineteenth-century railroad construction and rapid development. The valley floor is practically capped in concrete. Relocating and understanding the Jasper Allen Mound is a key step in understanding the Scott Creek watershed as a significant place within the ancestral Cherokee cultural landscape. It is a place that may shed light on important social and cultural changes that happened in the late fourteenth and early fifteenth centuries not only in southwestern North Carolina, but over much of the Eastern Woodlands.

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WHAT SURROUNDS CONNESTEE MOUNDS? INSIGHTS FROM MAGNETOMETER SURVEY AT BILTMORE MOUND (31BN174), BUNCOMBE COUNTY, NORTH CAROLINA

by

Alice P. Wright and Timothy J. Horsley

Abstract

Today, as in the recent past, earthen mounds are a central feature of Cherokee landscapes in the Appalachian Summit of western North Carolina. The region's mound building tradition began nearly 2000 years ago during the Connestee phase. Understanding the origins of these monuments and the roles they played in ancestral Cherokee societies requires an investigation of contemporaneous, nonmonumental sites and activity areas with the potential to contextualize mound-related practices. This article presents a first step in that effort: the results of a small-scale magnetometer survey from the Biltmore Mound and village site (31BN174) in Asheville, North Carolina. Our survey highlights the utility of geophysical survey for identifying buried archaeological deposits at Connestee sites even as it raises new questions regarding off-mound architecture and occupation areas that can only be clarified with additional remote sensing and excavation.

Nearly 2000 years ago, Native communities in the greater French Broad watershed erected two of the Appalachian Summit's earliest earthen platform mounds: Garden Creek Mound No. 2 (31HW2), along the Pigeon River in Haywood County, North Carolina; and Biltmore Mound (31BN174), along the Swannanoa River in Buncombe County, North Carolina (Figure 1). Bennie Keel and archaeologists from the Research Laboratories of Archaeology at the University of North Carolina, Chapel Hill, excavated Garden Creek Mound No. 2 in the late 1960s, while the Appalachian State University Laboratories of Archaeological Science partially excavated the Biltmore Mound in the early 2000s (Keel 1976; Kimball et al. 2010). These efforts generated multiple lines of evidence suggesting locally unprecedented ritual activities associated with various Middle Woodland interaction spheres, including Hopewell, during the Connestee phase (AD 200–600).

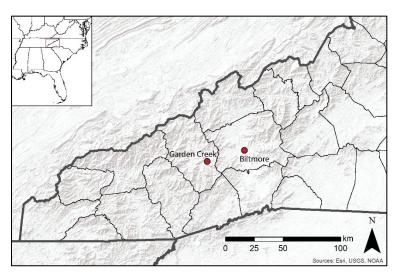


Figure 1. Map of southwestern North Carolina showing the locations of Biltmore Mound and Garden Creek Mound No. 2.

The initial phases of field research at both Garden Creek and Biltmore concentrated on mound deposits, mirroring a long-standing emphasis on earthen monuments by Middle Woodland archaeologists across eastern North America. For example, surveyors, antiquarians, and archaeologists have mapped and excavated Hopewell mounds and earthworks in Ohio since the mid-nineteenth century, but researchers have only recently turned their attention toward non-monumental sites and spaces (Lynott 2014). Geophysical prospection techniques have played a crucial role in this recent trend in the Ohio Hopewell core (e.g., Burks 2014) and across the Middle Woodland Southeast (Wright 2017:58–59). These methods can detect subtle variation in subsurface deposits that may be associated with archaeological features or materials, and can collect such data over extensive areas that traditional excavation techniques could never effectively expose. When coupled with a targeted ground-truthing strategy, geophysical surveys can reveal the nature and organization of a site's built environment and activity areas as well as changes in those patterns through time. This information is essential for understanding the role of monuments at Middle Woodland sites and the social, political, economic, and religious structures and practices that characterized the societies who built them.

Over the last decade, alongside researchers applying similar techniques across North Carolina (see Mintz and Patch 2016, and other articles in Volume 65 of *North Carolina Archaeology*), we have sought

MAGNETOMETER SURVEY AT BILTMORE MOUND

to bring these methodological advances to bear on the Middle Woodland archaeological record of the Appalachian Summit. At the Garden Creek site, we employed multiple near-surface geophysical survey methods and targeted follow-up excavations to assess the nature of the archaeological record around Mound No. 2. We identified dozens of likely anthropogenic features across the roughly 6 ha landform on which Mound No. 2 is situated, including two small geometric ditch enclosures and activity areas that we interpret as the remains of intermittent habitation and gathering during the Connestee phase (Horsley et al. 2014; Wright 2014, 2019). More recently, we initiated a geophysical survey program at the Biltmore Mound, the results of which we report here. Although our survey area at Biltmore was comparatively small, our preliminary results offer an intriguing comparison to the Garden Creek site and suggest promising lines of future inquiry regarding what surrounds Connestee mounds.

Site Background

First reported by David Moore (1984) following an archaeological survey of the Biltmore Estate, the Biltmore Mound occupies a broad floodplain on the south side of the Swannanoa River approximately one mile upstream from its confluence with the French Broad River. Today, the mound measures approximately 60 m in diameter and 1.5 m high, but these dimensions reflect the impacts of many decades of plowing. Appalachian State's 212 m² excavation block in the southwestern quadrant of the mound indicated that it originally measured approximately 30 m in diameter and approximately 2 m tall (Kimball et al. 2010). Below the plowzone, this excavation exposed a series of mound construction stages that appeared in plan view as concentric deposits of multi-colored and multi-textured fill (Kimball et al. 2010:Figure 3). The earliest construction episodes, dated to around cal AD 400-580, were located near the center of the mound (in the northeast portion of the excavation); the latest, dated to cal AD 580-600, were located at the furthest extent of the mound. As Kimball and colleagues (2010:56) put it, the mound "was primarily built out (rather than up) with several mantles that may have comprised a complete ritual cycle of mound construction." More recently, Kimball and Wolf (2017) have proposed that the mound supported a large (approximately 25 m in diameter) earthlodge or "Great House," reminiscent of ceremonial structures at Ohio Hopewell sites as well as certain Cherokee townhouses.

Multiple lines of evidence support Kimball and colleagues' assessment of the Biltmore Mound as a locus of significant ritual activity. Artifacts recovered from the mound include "objects...that may qualify as paraphernalia related to shamanic, ritual, and public ceremonies [including] mica cutouts, copper objects, crystals, gorgets, pigments, bone awls, shaped antler tines, 'power parts' from select animals (shaped bear and canid jaws, a shaped bear baculum, and jaws of bobcat, fox, and raccoon), and putative bone tattooing needles/scratchers" (Kimball et al. 2010:54). A remarkable concentration of archaeofaunal remains in a ditch located at the outer edge of the mound is suggestive of periodic, intensive feasting activities associated with integrative ceremonial gatherings in the Woodland Southeast (Kassabaum 2019; Knight 2001). Broadly speaking, these activities resemble those inferred from the archaeological record at Garden Creek Mound No. 2 (Keel 1976; Wright 2019), and they have served to define a regionally distinctive pattern of Hopewellian ceremonialism in the Appalachian Summit. That said, it should be noted that the construction and use of Garden Creek Mound No. 2 preceded that of the Biltmore Mound by two to four centuries. Radiocarbon dates place the former between cal AD 84 and cal AD 360 (Wright 2014:Table 1) and the latter between cal AD 530 and cal AD 650 (Kimball et al. 2010: Table 2). Still, broad similarities in material culture, especially ceramics and exotic Hopewellian materials, suggest that they bracket the chronological beginning and endpoints of a singular, local cultural expression that Keel (1976) labeled Connestee.

Features and the possible buildings associated with the Biltmore Mound similarly attest to ritual activities. A massive posthole. approximately 50 cm in diameter and extending 1.2 m below the current ground surface, was identified near the center of the mound summit and may represent an "axis mundi" post similar to those at other Middle Woodland and more recent monumental sites across the Southeast (e.g., Knight 2001; Kelly 2003). If future investigations support Kimball and Wolf's (2017) interpretation that alignments of large postholes on the mound represent a huge and ultimately decommissioned earthlodge, then we can assume that large-scale community gatherings, likely involving feasting and related ceremonies, occurred there. Finally, zooming out to the wider landscape, the Biltmore Mound and its hypothetical summit structure appear to have been erected in such a way as to demarcate alignments between major celestial events (e.g., summer solstice sunset, winter solstice sunrise) and topographically and mythologically significant landscape features (e.g., Mount Mitchell, Mount Pisgah,

MAGNETOMETER SURVEY AT BILTMORE MOUND

Hickory Nut Gap Gorge, the Pigeon River Gorge) (Kimball et al. 2013; Kimball and Wolf 2017). Altogether, artifactual, architectural, and landscape-scale data underscore the fact that the Biltmore Mound proper served a specialized, ritual purpose for Connestee peoples that not only reflects Hopewellian influence but also suggests compelling connections to more recent Cherokee traditions (Kimball and Wolf 2017:28–29).

However, as at Garden Creek Mound No. 2, Connestee occupation at 31BN174 was not limited to the mound itself: the site is also associated with non-monumental Connestee deposits. The Biltmore Mound itself was erected on top of a 50-cm thick midden dated to cal AD 320-420 (Kimball et al. 2010). Connestee materials were also recovered away from mound deposits, although in these cases, the midden and its constituents were largely incorporated into the plowzone while features dug into the subsoil (postholes, pits) remained intact. In addition to three test units on the mound that resulted in the monument's discovery, Moore (1984) excavated two test units off the mound that confirmed the presence of Connestee material culture elsewhere on the landform. Two shovel test transects-one running through the site's longest north-south axis and one through its longest east-west axisvielded 23 contiguous positive shovel tests. These results indicated that the Connestee occupation extended at least 325 m east of Ram Branch (the presumed western edge of the site) and at least 225 m south of the Swannanoa River (the presumed northern edge of the site), encompassing roughly 10 ha (Kimball et al. 2008). Researchers from Appalachian State excavated a portion of this occupation in a 10-m-x-10m block approximately 30 m southwest of the large mound excavation. Sub-plowzone features in this area included "a large storage pit, two large rock ovens, five other features, and approximately 50 postholes of indiscernible structural patterns" (Kimball et al. 2010). Charcoal from two of these features produced dates from both the early and late Connestee phase, corroborating stratigraphic evidence from the submound midden of a pre-mound occupation and, further, demonstrating the existence of an occupation roughly contemporaneous with mound construction and use (Table 1; see also Castleberry 2017).

Geophysical Survey Method

In 2016, we sought to further clarify the off-mound occupation at 31BN174 using near-surface geophysical prospection—specifically, magnetometry. Magnetometry is currently the most rapid geophysical survey method and can detect a broad range of both prehistoric and historic archaeological features on account of contrasts in magnetic

Lab No.	Measured 14C Age B.P.	Calibrated Age (1-sigma)	Context
Beta-409275	1620 ± 30	cal AD 415-560	Feature 32
Beta-409276	1810 ± 30	cal AD 135–335	Feature 36

Table 1. Radiocarbon Assays from Off-Mound Features at Biltmore Mound (31BN174).

susceptibility (MS) and/or the presence of a permanent magnetization (Kvamme 2006). MS is a measure of the ability of a material to become magnetized when placed in a magnetic field, and in soils it is related to the presence of naturally occurring iron minerals. These minerals can be converted to more magnetic forms through many anthropogenic activities, such as heating and the decomposition of organic material. In addition to pits, ditches, larger postholes, and many burnt remains, it is often possible to identify areas of former occupation using a magnetometer through their increased "noise" levels. Heating soils to high temperatures can cause a strong, permanent magnetization to be retained such that kilns and furnaces, as well as accumulations of brick and tile, can be detected. Historic sites are therefore usually more easily identified on account of the higher concentration of magnetic material in the form of brick, tile, and ceramics, in addition to iron objects.

Our magnetometer survey at 31BN174 was undertaken across a grid comprising 12 30-m-x-30-m squares, set out using a total station and aligned as closely as possible with the previous excavation grid. The survey was undertaken using a Bartington Grad601-2 dual fluxgate gradiometer. Data were collected at a sample interval of 0.125 m along traverses spaced 0.5 m apart, with each line being walked in opposite directions. In total, an area of around 1.05 ha (2.62 acres) was covered. A plot of the raw magnetometer data following sensor destripe to correct for inherent differences in the sensor pairs and their orientations is presented in Figure 2. As with most magnetometer results, this image reveals a combination of geological, archaeological, and historic/modern anomalies.

Results

Geological Effects

The broad (>5 m) positive (black) and negative (white) responses are likely natural in origin and reflect magnetic contrasts in the underlying subsoil or geology. Since the Rosman fine sandy loam and

MAGNETOMETER SURVEY AT BILTMORE MOUND

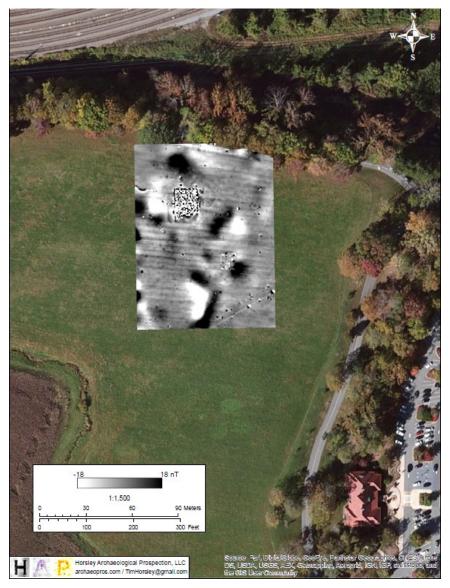


Figure 2. Raw magnetometer data of survey area at Biltmore Mound (31BN174) after sensor destripe.

Dillard loam soils that are found in this area are both described as being at least 2.0 m deep before any solid parent material is encountered (USDA-NCRS 2016), these anomalies probably represent variations in the underlying alluvial material. Further work would be required to fully understand their causes; however, they are clearly non-archaeological in

origin. The image presented in Figure 3 shows the same results after the application of a broad High Pass spatial filter to suppress these natural anomalies and highlight smaller scale responses that are more likely anthropogenic in nature. A simplified interpretation of significant anomalies is presented in Figure 4, superimposed onto a plot of LiDAR data to relate the results to the topographic variations. Contour lines at intervals of 0.2 m are also shown.

Bipolar Anomalies

In Figures 2 and 3, smaller bipolar responses (generally less than 2 m across) are due to near-surface iron metal. While some of this is likely randomly scattered debris from farm machinery, trash, etc., others can be associated with iron nails used in excavation units. Unfortunately, their effect is to obscure any subtler magnetic responses that might be due to archaeological features in this area.

In the southeastern corner of the survey area is a band of anomalies, comprising both a negative linear response and a parallel alignment of bipolar ferrous responses. These are most likely associated with a small historic rail line that is believed to have passed through this area (Bill Anderson, personal communication 2016).

One other clear bipolar response is visible near the northwest corner of the survey area, and this is most likely due to the effects of a lightning strike.

Plow Scars

Positive and negative banding can be seen across almost the entire survey area and is caused by plow scars, very likely due to deeper chisel plowing. These linear anomalies are oriented approximately WNW–ESE (parallel to the northern long edge of the field) and are about 4 m apart. Not only do these plow-scar anomalies reveal the extent of plow damage into the subsoil and any potential archaeological features, they are also more strongly defined over areas of former settlements due to the localized MS enhancement associated with occupation activities (relative to the underlying natural subsoil).

Consequently, the intensity of these anomalies can help to define concentrations of former human activity; in this survey, the plow-scar anomalies are most intense to the south of the mound, becoming almost imperceptible in the northwest and southeast corners of the survey.

MAGNETOMETER SURVEY AT BILTMORE MOUND

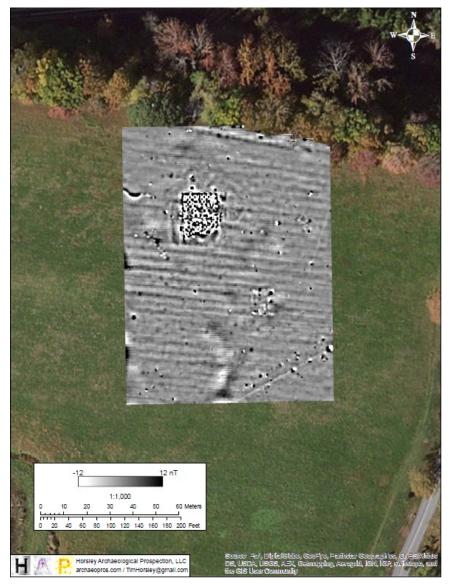


Figure 3. Magnetometer data from Biltmore Mound (31BN174) after application of a High Pass filter.

The Mound

Although the excavation trench and modern disturbance that partially surrounds it (likely caused by screened back dirt and discarded fire-cracked rock) are clearly discernable, few clear anomalies of

archaeological origin can be seen in the area of the mound. In the southwestern quadrant, this is due to the intense bipolar ferrous responses, but it is curious that the remaining three quarters of the mound appears little different to the rest of the survey area. The magnetometer detected a mostly negative band, 1.0–1.4-m wide, with an associated positive response in places located at the edges of the mound summit (Figure 4). This is quite clearly related to the mound itself and is likely the result of truncation of the top of the mound by repeated plowing. The plow-scar responses continue right across the mound, slicing through differing construction materials (i.e., soils with differing magnetic properties). Kimball (personal communication 2019) suggests that the positive response represents Mound Stage J, described as "a thick layer of dark grayish brown silty loam representing redeposited midden very rich in artifacts, faunal remains, fire-cracked rock, and carbonized plant remains" (Kimball et al. 2013:125).

Perhaps more surprisingly, the magnetometer did not detect an anomaly associated with the 7-m-wide ditch detected through excavation and presumed to extend around the perimeter of the mound (Kimball et al. 2010, 2013; Kimball and Wolf 2017). Such a cut-and-filled feature would be expected to produce a distinct positive (dark) ring on account of the more magnetic fill, but no such anomaly was apparent in our results. This could be explained if the mound was constructed from local, sterile soil, and the ditch was backfilled with this clean material relatively soon after being cut. This situation would provide no detectable magnetic contrast between the mound, ditch fill, and natural soils and subsoil; however, we know from excavations that the ditch yielded substantial artifact, zooarchaeological, and paleobotanical assemblages. Further work will be required to better understand this discrepancy.

Immediately east of the modern ferrous interference, there are suggestions of magnetic anomalies that could indicate a central pit or pits containing burnt material, approximately 1.7 m in diameter. Other weaker anomalies might also have archaeological origins, but are less easily interpreted. The lack of larger magnetic anomalies within the mound area suggests that it was constructed of locally available soil material—or at least material of comparable magnetic properties—and that it is homogenous in its composition. The negative band described above helps to indicate the top of the mound, and it suggests both that the mound was square with rounded corners in plan (as previous excavation indicated) and had a surface layer of differing soil material.

MAGNETOMETER SURVEY AT BILTMORE MOUND

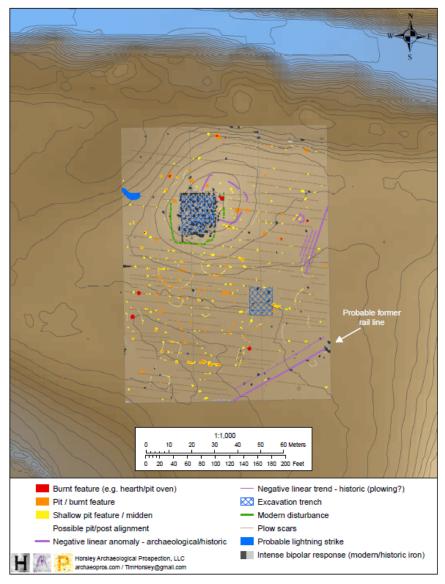


Figure 4. Interpretation of significant magnetic anomalies at 31BN174, with 0.2-m contours overlaid.

Other Probable Prehistoric Features

Away from the intense ferrous responses and plow-scar effects, many discrete, positive magnetic anomalies have been identified that are likely due to a range of different buried archaeological features (see

Figure 4). The size and strength of these anomalies suggest features such as small hearths, pits of varying function (e.g., pit ovens and trash pits), and possibly larger post holes. In each case, the positive anomaly indicates a concentration of magnetically enhanced soil material, and these can be caused by digging into subsoil and the subsequent deliberate or natural backfilling with topsoil, burnt soil material, or midden material. They are therefore interpreted as being associated with former habitation activities. Some of these discrete anomalies appear to form trends and alignments, and may therefore help to indicate former structures or at least areas adjacent to structures. The clearest of these are highlighted in Figure 4, although other, more tentative trends are present. Ground-truthing, through coring or limited, targeted excavation would help to better understand the nature of these anomalies and improve future interpretations of similar data.

Discussion

Lacking results of ground-truthing to confirm our suspicions about the anthropogenic origin of many of the detected magnetic anomalies, we are hesitant to offer detailed interpretations of the magnetometry data from 31BN174. However, tentative interpretations depicted in Figure 4 merit some discussion in light of what we know from other excavated contexts at Biltmore and from analogous datasets originating elsewhere in western North Carolina.

As mentioned above, the magnetometer detected a negative, linear anomaly that demarcates with the edges of the summit of the Biltmore Mound. When overlaid with a plan map of mound stages as revealed through excavation (Kimball et al. 2010:Figure 3), the anomaly corresponds with the location of Mound Stage G, the outermost/last mantle of mound construction described as a "thick, possibly basketloaded mixture of both A- and B-horizon soils...containing few cultural remains but some charcoal" (Kimball et al. 2010:46). By the full areal extent of the constructed (albeit truncated) mound, this anomaly confirms excavators' supposition that the mound conformed to a "squircular" shape shared by Middle Woodland ritual structures across Eastern North America (Anderson 2013; Brown 1979; Greber 2006). This architectural form is especially well represented at Garden Creek, where not only Mound No. 2 but also two early Middle Woodland Pigeon phase ditch enclosures were square with rounded corners (Keel 1976; Wright 2014, 2019). Whatever its symbolic or functional significance, this shape appears to have persisted in the architecture of the Southern

MAGNETOMETER SURVEY AT BILTMORE MOUND

Appalachians in the form of some Cherokee townhouses, particularly those from before AD 1700 (Rodning 2011:152).

Away from the mound itself in the southeast corner of our survey area, at least one alignment of anomalies, comprised of likely pit/burned features and shallow pits/midden-filled features, may conform to a squircular shape. Other alignments are liner, sometimes meeting at sharp angles, or curvilinear, arcing to form partial or complete circles. Both rectangular and circular habitation structures have been identified at Connestee phase sites in western North Carolina (Benyshek et al. 2010; Steere 2017; Wetmore 1996), suggesting the anomaly alignments detected at 31BN174 may represent the magnetically detectable remains of domestic buildings. In this scenario, we would assume that the straight and curved alignments that do not fully enclose a space only comprise the magnetically "visible" portions of structures, and that the remaining outlines of these structures were too subtle to be detected. Alternatively, what we see with the magnetometer may be all that exists; in other words, these alignments may not represent the remains of enclosed buildings but rather screens, scaffolds, or other dividers. Such features have been proposed at other Middle Woodland sites in the Southeast, especially in association with periodic platform mound ceremonialism and feasting (Knight 2001).

Determining which of these scenarios is a more accurate characterization of off-mound activities at Biltmore would have important implications for our interpretations of Connestee social and political organization. A 30,000 foot view of Middle Woodland societies in Eastern North America reveals a divergent pattern in settlement and ceremonialism (Wright 2017). In the Midwestern Hopewell Core, monumental mound and earthwork sites are characterized as "vacant ceremonial centers" whose visitors otherwise lived in dispersed hamlets and farmsteads but periodically gathered for myriad social, economic, and religious reasons. Meanwhile, in the Southeast, some (though not all) Middle Woodland mounds share a location with some of the earliest permanent villages in the region. In both cases, earthen monuments are argued to have served some integrative function for the community or communities involved, but as generations of anthropologists have argued, emergent villages involve novel social and political pressures that require special facilitations and ameliorations (Pluckhahn 2010). Understanding what kind of socio-political relationships were at stake at 31BN174 thus requires a fuller understanding of its off-mound occupation.

Such an understanding is impossible without targeted excavations around the Biltmore Mound, but initial comparisons to the extensively surveyed and strategically ground-truthed, off-mound occupation area at Garden Creek may be instructive (Wright 2019:Chapter 5). A combination of three geophysical prospection techniques-magnetic susceptibility, magnetometry, and ground penetrating radar (GPR)revealed areas of magnetically enhanced topsoil surrounding Garden Creek Mound No. 2 that likely resulted from the incorporation of archaeological deposits into the plowzone; this resembles the pattern detected through both magnetometry and shovel testing at 31BN174. Magnetometer results from Garden Creek were substantially "noisier" than those from Biltmore, so direct comparisons of those datasets are difficult. However, GPR data from a small (ca. 1 ha) portion of the Garden Creek site east of Mound No. 2 revealed a scatter of burned and midden-filled anomalies similar to those shown in Figure 4, albeit with even fewer pit or post alignments. Excavation of some of these anomalies revealed pits and postholes of varying sizes and functions, but no obvious structural remains, and generally low artifact densities. In light of the available evidence, I have interpreted the off-mound occupation associated (spatially and temporally) with Garden Creek Mound No. 2 as something between the two poles of Middle Woodland settlement types described above: the site was by no means a vacant ceremonial center, but neither was it intensively occupied on a permanent basis (Wright 2019). In light of the sorts of settlement the pre-date and post-date the Connestee phase, the sort of occupation that surrounded the mound at Garden Creek may shed light on the nature of the transition to increasingly sedentary community life in the Southern Appalachians and processes of emplacement (sensu Rodning 2010). Whatever surrounded the Connestee mound at Biltmore may be similarly illuminating.

Conclusions

Our small magnetometer survey at 31BN174 demonstrates the potential of magnetometry for detecting a range of buried prehistoric and historic cultural features in this environment. The underlying geological deposits produce strong natural magnetic anomalies, but filtering of the data can reduce their impacts on distinguishing and interpreting archaeological features. Plow-scar responses are also very distinct and make identification of subtler archaeological anomalies more difficult; however, their regularity means they can be fairly easily ignored. With

MAGNETOMETER SURVEY AT BILTMORE MOUND

survey data collected over a wider area, it might also be possible to filter out these regular anomalies.

Even in our limited survey area, it is possible to detect a range of anomalies that plausibly represent the remains of Connestee phase activities, considering test units and shovel tests elsewhere on the site produced Connestee materials exclusively. Testing these hypotheses directly will require strategic ground-truthing, while fully investigating the nature of the off-mound occupation at Biltmore will benefit markedly from an expanded magnetometer survey and/or the application of alternative non-invasive geophysical techniques. Surveys of topsoil magnetic susceptibility, earth resistance, and ground penetrating radar could provide complementary data that could greatly enhance the understanding of buried cultural resources in this environment. Combined, such field-based efforts promise to shed new light on Connestee sites and societies, including their relationships with their contemporaries across the continent and their descendants in the Southern Appalachians.

Acknowledgments

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WOODLAND POTTERY VESSELS FROM SITE 31GF466: CLASSIFICATION AND INTEPRETATION

by

Shawn M. Patch and Christopher T. Espenshade

Abstract

Archaeological investigations at site 31GF466 in the north-central Piedmont region of North Carolina produced a moderate precontact pottery assemblage. Excavations did not identify any features or recover floral, faunal, or radiocarbon samples. Pottery analysis identified 16 unique vessels, all of which likely date to the Early-Middle Woodland period. However, the pottery assemblage is not a perfect match for any series or types defined in the region. The dominance of fabric-impressing for surface treatment and the prevalence of very coarse, crushed rock temper suggest that the assemblage represents one of many localized manifestations of an Early-Middle Woodland tradition that included the Yadkin and Grayson ceramic series. The spatial patterning and the overwhelming prevalence of fabric-impressing suggest that the site represents deposits from a relatively short time span. It appears that one or two family groups re-used the location, perhaps seasonally, over a decade or so. Additionally, the Yadkin series and Grayson series may reflect an array of diverse local manifestations rather than a broad tradition.

Under contract with the North Carolina Department of Transportation (NCDOT), New South Associates, Inc., conducted archaeological data recovery investigations at site 31GF466 (Patch et al. 2019) (Figure 1). Site 31GF466 was first identified by Legacy Research (2008) as part of an archaeological survey of the northern Greensboro Urban Loop. At that time, the site was interpreted as a Late Archaic to Early Woodland period, long-term habitation with possible discrete spatial-temporal artifact clusters. The western cluster yielded lithics and Yadkin ceramics and was argued to represent a Woodland component. The eastern cluster yielded only lithics and was argued to represent a possible Archaic component.

Results from the data recovery indicated a lack of features, no floral or faunal remains, moderate frequencies of lithic debitage and tools, and moderate to high ceramic frequencies. Precontact pottery was the largest

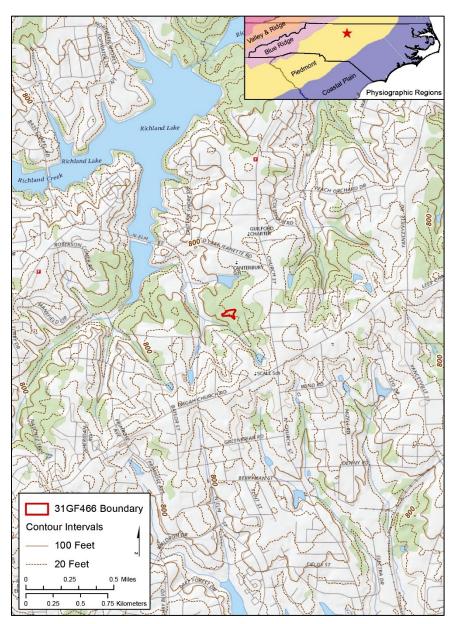


Figure 1. Map locating site 31GF466 in Guilford County, North Carolina (created using data from USGS National Map [2018] and NC OneMap Geospatial Portal [2018]).

and best dataset that could provide insight into the Woodland site-use episodes. This paper focuses on pottery vessels recovered from site

31GF466 and the implications for Early-Middle Woodland subsistence and settlement systems.

Numerous pottery types have been identified for the Early and Middle Woodland periods in the Piedmont region of North Carolina (Coe 1952, 1964). Most of these were defined several decades ago, and they have continued in use with occasional refinements. Badin, Yadkin, and Uwharrie ceramics are common over broad areas of central North Carolina. In the Roanoke River Basin, Coe (1964) and South (2005) defined the Vincent and Clements series associated with the Early and Middle Woodland periods. Coe (1964) initially suggested that the Vincent series was contemporary with the Badin series, but subsequent radiocarbon dating indicate it was more likely associated with the Yadkin series (Ward and Davis 1999:94). In southwest Virginia, Holland (1970) defined the Grayson series.

Pottery Analysis

The analysis of pottery from site 31GF466 sought data to address research areas of chronology, typology, ceramic ecology/technology, and subsistence (Mohler 2016). Accordingly, a range of analytical techniques was brought to the collection, beginning with sherd-based analysis and then more detailed, vessel-based, attribute study. For individual sherds, we recorded multiple attributes, including vessel portion, exterior surface treatment, interior surface treatment, temper, and weight. Rim sherds were analyzed for rim form and treatment and lip form and treatment. Sherds that were smaller than two centimeters were identified as residual. Whenever possible, sherds were classified according to existing typologies relevant to the region. In practice, however, typological classification was difficult because many of the sherds were small, heavily eroded, or lacked distinguishing attributes.

We emphasized vessel analysis over individual sherds for interpretations. All non-residual sherds were pulled for possible sorting into sample vessels. The following attributes were recorded, as feasible, for each sample vessel: number of sherds and contributing contexts; percentage of parent vessel; exterior and interior surface treatments; aplastic type, shape, and size; rim diameter, form, and production steps; core configuration; paste color; percentage of core retention; sooting and use abrasions; and fire clouding. More detail on each of these can be found in Patch et al. (2019).

The precontact pottery sample (n=410) consisted of 196 residual sherds, 185 body sherds, 24 rim sherds, two basal sherds, and three daub

Surface Treatment	Count	%	Weight	%
Eroded	49	23.67	310.9	14.14
Eroded Decorated	16	7.73	158.5	7.21
Fabric Impressed	88	42.51	921.5	41.90
Plain	28	13.53	304.8	13.86
Shell Scraped	2	0.97	18.4	0.84
Simple Stamped	6	2.90	71	3.23
Smoothed	3	1.45	144.1	6.55
Smoothed Fabric Impressed	15	7.25	270.3	12.29
Total	207	100.00	2199.5	100.00

Table 1. Summary of Major Exterior Surface Treatments on PotterySample.

fragments. Of the initial sample of non-residual sherds (n=211), four were submitted for absorbed residue analysis prior to detailed vessel analysis. The following discussion of sherd-based and vessel-based analysis focuses on the remaining 207 non-residual sherds.

The 207 non-residual sherds were generally small, ranging in weight from 2.2 to 141.0 grams. The mean sherd weight was only 10.6 grams. Analysis revealed an assemblage dominated by fabric-impressed (n=88), eroded (n=49), plain (n=28), eroded-decorated (n=16), and smoothed fabric-impressed (n=15) surface treatments (Table 1). As Table 1 shows, there were very few sherds with other surface treatments: three are smoothed, two are shell scraped, and six are simple stamped. The assemblage lacked check-stamped, net-impressed, and complicated-stamped treatments, and there were no incising or rim/neck modifications. This pattern of surface treatments is consistent with the Yadkin series (Coe 1964; Woodall 2009).

The aplastic types were all variations on the theme of crushed rock (Table 2). There were 154 sherds with crushed non-quartz rocks, 44 sherds with crushed quartz, seven sherds with crushed steatite, and six sherds with no apparent temper. If the original type descriptions by Coe (1964) are followed, the crushed quartz sherds could be Yadkin or Uwharrie series, but there is no good match for the other crushed rock tempers. However, research since Coe's (1964) pioneering work has shown a great level of variability in the aplastic types associated with the Early-Middle Woodland in the Piedmont. For example, Woodall (2009:32) reports:

Temper	Count	%	Weight	%
Crushed Quartz - Coarse	19	9.18	124.1	5.64
Crushed Quartz - Coarse to Very Coarse	3	1.45	51.8	2.36
Crushed Quartz - Granules	29	14.01	230.9	10.50
Crushed Quartz - Granules to Very Coarse	2	0.97	25.6	1.16
Crushed Quartz - Medium	2	0.97	12.7	0.58
Crushed Quartz - Pebbles	1	0.48	3.7	0.17
Crushed Quartz - Very Coarse	79	38.16	701.2	31.88
Crushed Rock - Coarse	8	3.86	113.7	5.17
Crushed Rock - Coarse to Very Coarse	23	11.11	427.4	19.43
Crushed Rock - Granules	2	0.97	123.5	5.61
Crushed Rock - Very Coarse	12	5.80	92	4.18
Mica - Coarse	2	0.97	21.4	0.97
Mica - Granules	12	5.80	66.3	3.01
No Apparent Temper	6	2.90	143.7	6.53
Steatite - Coarse	7	3.38	61.5	2.80
Total	207	100.00	2199.5	100.00

Table 2. Summary of Major Temper Types in the Pottery Sample.

Yadkin pottery has fabric or cord-impressed exteriors, well-smoothed interiors, and is tempered with various kinds of crushed rock, often quartz. Variants of this early ceramic tradition drape across the interior Southeast and, despite the plethora of regional designations (Watts Bar, Kellogg, Dunlap, Yadkin, Swannanoa) give a degree of unity to the early Woodland that largely disappears in the centuries, and diverse pottery traditions, that follow.

Given small sherd size, it was often difficult to clearly identify major aplastic size; however, there was a general consistency across the surface treatment categories. For the full assemblage, the following size classes were represented: granule (n=46), very coarse (n=117), coarse (n=40), and no apparent temper (n=6). This variability in major aplastic class is consistent with a generalized preference for very coarse aplastics, which sometimes, instead, produced granule or coarse aplastics (i.e., native potters did not have sieves of established Wentworth size classes). This size distribution for aplastics is consistent with the Yadkin series, as documented at Doerschuk (Coe 1964), the T. Jones site (Woodall 2009), and 38SU83 (Blanton et al. 1986).

The pattern seen for the full assemblage is repeated in the preferences for the unidentified decorated, fabric impressed, and plain surface treatments. This suggests that most or all the recovered sherds

Vessel	Block 1	Block 2	Block 8	Block 9	Block 10	Block 11	Total
Vessel 1	-	-	-	-	6	-	6
Vessel 2	-	-	-	-	2	-	2
Vessel 3	-	-	-	-	13	1	14
Vessel 4	-	-	6	1	-	-	7
Vessel 5	-	-	-	-	8	-	8
Vessel 6	-	-	-	-	1	-	1
Vessel 7	-	-	-	-	2	-	2
Vessel 8	-	-	-	1	-	-	1
Vessel 9	-	-	1	1	-	-	2
Vessel 10	-	-	-	-	1	-	1
Vessel 11	-	-	1	-	-	-	1
Vessel 12	1	-	-	-	-	2	3
Vessel 13	-	-	-	-	1	-	1
Vessel 14	1	-	-	-	-	-	1
Vessel 15	-	-	-	-	1	-	1
Vessel 16	-	2	-	-	-	-	2
Total	2	2	8	3	35	3	53

Table 3. Summary of Vessel Lots.

were produced within a common technological tradition and may all date to the same time span.

The sample is composed of 207 sherds from Blocks 1, 2, 8, 9, 10, 11, and 15. Stratigraphically, all the pottery was recovered from the plow zone and the uppermost portion of the subsoil on a severely deflated landform. After initial efforts to cross-mend sherds, the sherds were sorted by Chris Espenshade into 16 vessel lots based on the following attributes in general order of importance, beginning with the most important: aplastic type, size, and density; exterior surface treatment; interior surface treatment; rim form, production step, and decorative treatment; and color.

The sample of 207 sherds was sorted into 16 vessel lots (Table 3). This represented a successful sorting into vessel lots of 44 percent of the assemblage by weight and 26 percent of the assemblage by sherd count. Such percentages can be considered highly representative of the entire assemblage, and the sorting was stopped when the analyst perceived he had reached a point of diminishing returns.

Vessel lots are described in detail below.

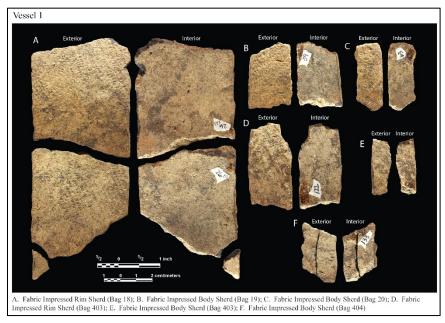


Figure 2. Photographs of Vessel 1 potsherds.

Vessel 1

Sherd count: 6. Total weight: 143.7 g. Exterior surface treatment: Smoothed fabric impressed. Major aplastic: No apparent temper. Estimated percent of parent vessel: 1%.

Vessel 1 consists of six sherds from Block 10 (Figure 2). The vessel has smoothed, fine fabric impressions on the exterior surface and shell scraping on the interior surface. The compact paste is predominantly lacking any notable aplastics. The paste color is 10YR 2/1, the core configuration is homogeneously dark, and the core retention is 100 percent.

Coil breaks are prevalent, with each of the sherds showing at least one coil break. The pot was made from relatively thin coils, as one of the sherds has top and bottom coil breaks defining a centimeter of vessel height.

The upper vessel wall is everted, but there is not a sufficiently deep profile to know if the form was a simple bowl or a complex bowl. The

NORTH CAROLINA ARCHAEOLOGY [Vol. 68, 2019]

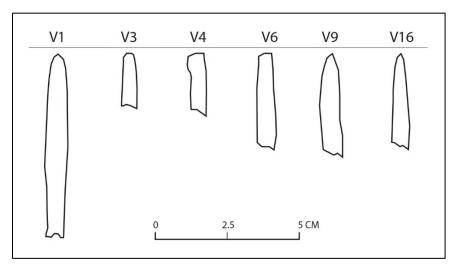


Figure 3. Rim profiles for Vessels 1, 3, 4, 6, 9, and 16.

rim is directly rounded, with a smoothed finish (Figure 3). The rim diameter is 26 centimeters.

Vessel 2

Sherd count: 2.
Total weight: 123.5 g.
Exterior surface treatment: Smoothed.
Major aplastic: Granule dark metamorphic rock, irregular, moderate density.
Estimated percent of parent vessel: 1%.

Vessel 2 consists of two basal sherds that directly cross-mend (Figure 4). Both were recovered from Block 10. The vessel had smoothed interior and exterior surfaces. The aplastics are granule-size, dark metamorphic rock. These seem to have originated naturally at this size, rather than representing bits crushed from a larger source rock. The temper is present at a moderate density.

The core configuration is homogeneously brown, with a paste color of 7.5 YR 5/4. The core retention is zero percent. The sherds define a rounded-base vessel, rather than a conoidal or pointed form.

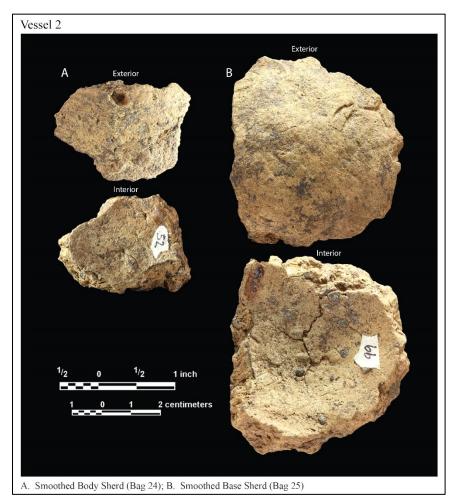


Figure 4. Photographs of Vessel 2 potsherds.

Vessel 3

Sherd count: 14. Total weight: 297.0 g. Exterior surface treatment: Fabric impressed. Major aplastic: Coarse-very coarse, crushed metamorphic rock. Estimated percent of parent vessel: 2%.

Vessel 3 is represented by 14 sherds from Blocks 10 and 11 (Figure 5). The exterior surface is fabric impressed, with variable amounts of smoothing. On certain sherds, the smoothing has left the surface



Figure 5. Photographs of Vessel 3 potsherds.

treatment resembling cord marking or simple stamping. The interior is neatly shell scraped.

The paste has a moderate density of coarse to very coarse fragments of crushed rock. The paste color is 10YR 2/1, the core configuration is homogeneously dark, and there is 100 percent core retention. The rim is directly rounded (see Figure 2). It appears that the rim was fabric impressed and then smoothed.

Vessel 4

Sherd count: 7.
Total weight: 61.5 g.
Exterior surface treatment: Fabric impressed.
Major aplastic: Coarse steatite, irregular shape, moderate-low density.
Estimated percent of parent vessel: < 1%.

All seven sherds sorted to Vessel 4 were recovered in Block 8 (Figure 6). The pot was fabric impressed on the exterior and smoothed on the interior. The sherds were readily sorted to this vessel by their unique aplastic content. Vessel 4 was tempered with coarse fragments of steatite, and the temper is present in low-moderate density. The paste color is 10YR 2/1. There is 100 percent core retention, and the core configuration is homogeneously dark. The rim form is rounded with an exterior lip (see Figure 2). The rim top was fabric impressed.

Steatite temper is typically associated with the Late Woodland Burke series in the western Piedmont of North Carolina (Moore 2002) and with the Late Woodland Smyth series in southwest Virginia (Holland 1970). However, fabric-impressed surface decoration is not found in either the Burke or Smyth series.

Vessel 5

Sherd count: 8.
Total weight: 113.8 g.
Exterior surface treatment: Smoothed fabric impressed.
Major aplastic: Coarse-very coarse, crushed metamorphic rock, moderate-high density.
Estimated percent of parent vessel: < 1%.

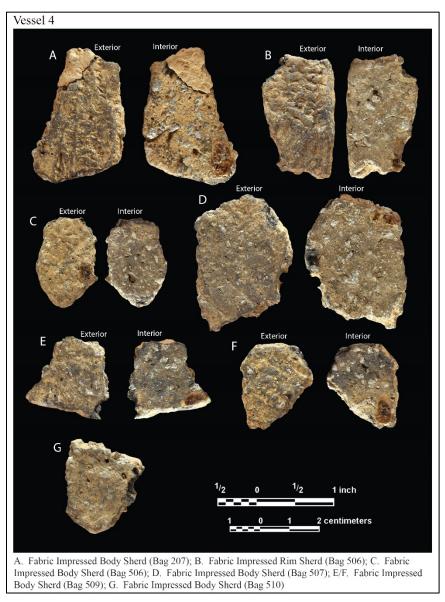


Figure 6. Photographs of Vessel 4 potsherds.

Vessel 5 is represented by eight sherds from Block 10 (Figure 7). The exterior surface treatment is fabric impressed, with variable degrees of smoothing. The interior is smoothed. The major aplastic is coarse to very coarse, crushed metamorphic rocks. This temper occurs in a



Figure 7. Photographs of Vessel 5 potsherds.

moderate to high density. The core configuration is homogeneously red, with no core retention. The major paste color is 5YR 4/3.

Vessel 6

Sherd count: 1. Total weight: 12.8 g. Exterior surface treatment: Well-smoothed fabric impressed.

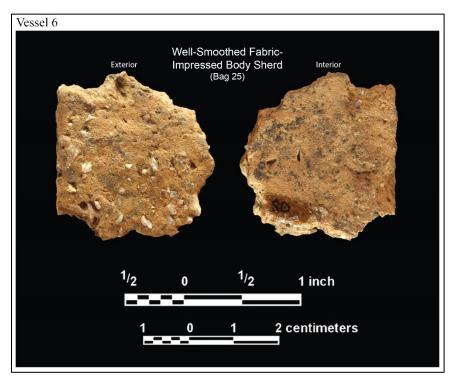


Figure 8. Photographs of Vessel 6 potsherd.

Major aplastic: Coarse-very coarse, crushed quartz, moderate density.

Estimated percent of parent vessel: < 1%.

A single sherd from Block 10 was designated Vessel 6 based on its unique aplastic content (Figure 8). The exterior surface is well smoothed, with faint traces of possible fabric impressions. The interior is smoothed. The major aplastic is coarse to very coarse, crushed quartz. This temper is present at a moderate density. The paste color is 5YR 5/4, and the homogeneously red core configuration has no core retention. The rim is directly square in form (see Figure 3). The rim face has been fabric impressed.

Vessel 6 is similar in some regards to the Yadkin Fabric Impressed type. The surface treatment and aplastic type match the type descriptions, but the aplastic size and density are not perfect matches.

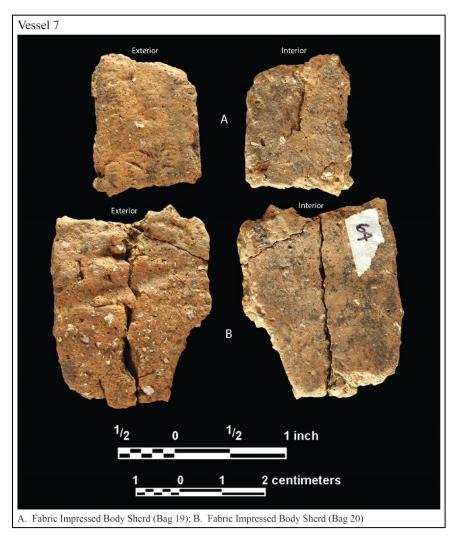


Figure 9. Photographs of Vessel 7 potsherds.

Vessel 7

Sherd count: 2.
Total weight: 20.1 g.
Exterior surface treatment: Fabric impressed.
Major aplastic: Coarse-very coarse, crushed metamorphic rock, moderate density.
Estimated percent of parent vessel: < 1%.

Two sherds from Block 10 were assigned to Vessel 7 (Figure 9). The exterior surface is fabric impressed, with variable smoothing. The interior is smoothed. The major aplastic is coarse, crushed rock, with occasional very coarse fragments. The temper occurs at a moderate density. The red-dark core configuration has a major paste color of 10YR 3/1. There is 60 percent core retention.

Vessel 8

Sherd count: 1. Total weight: 20.6 g. Exterior surface treatment: Smoothed. Major aplastic: Very coarse crushed quartz, moderate density. Estimated percent of parent vessel: < 1%.

Vessel 8 is represented by a single sherd from Block 9 (Figure 10). The exterior and interior surfaces are smoothed. The major aplastic is very coarse, crushed quartz. This temper occurs at a moderate density. The major paste color is 10YR 2/1 in the homogeneously dark core configuration. There is 100 percent core retention.

Vessel 9

Sherd count: 2.
Total weight: 25.6 g.
Exterior surface treatment: Fabric impressed.
Major aplastic: Granule-very coarse, crushed quartz, moderate density.
Estimated percent of parent vessel: < 1%.

Vessel 9 is represented by one sherd each from Blocks 8 and 9 (Figure 11). The exterior surface treatment is fabric impressed, variably smoothed. The interior is smoothed. The major aplastic is granule and very coarse, crushed quartz. The temper occurs at a moderate density. The core configuration is homogeneously dark, with a paste color of 10YR 2/1. There is 100 percent core retention. The rim is directly round and may have been fabric impressed (see Figure 3).

Vessel 10

Sherd count: 1. Total weight: 9.6 g. Exterior surface treatment: Simple stamped.

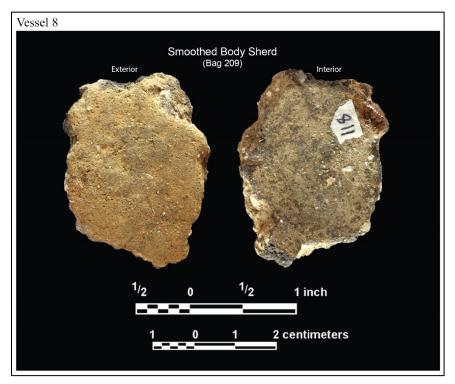


Figure 10. Photographs of Vessel 8 potsherd.

Major aplastic: Very coarse, crushed quartz, low density. Estimated percent of parent vessel: < 1%.

A single sherd from Block 10 was defined as Vessel 10 (Figure 12). The pot was simple stamped on the exterior, and the interior was smoothed. The major aplastic is very coarse, crushed quartz, which is a temper that occurs at a low density. The sherd has a paste color of 10YR 2/1, and a homogeneously dark core configuration. There is 100 percent core retention.

Vessel 11

Sherd count: 1.
Total weight: 28.9 g.
Exterior surface treatment: Simple stamped.
Major aplastic: Very coarse-coarse, crushed quartz, moderate density.
Estimated percent of parent vessel: < 1%.

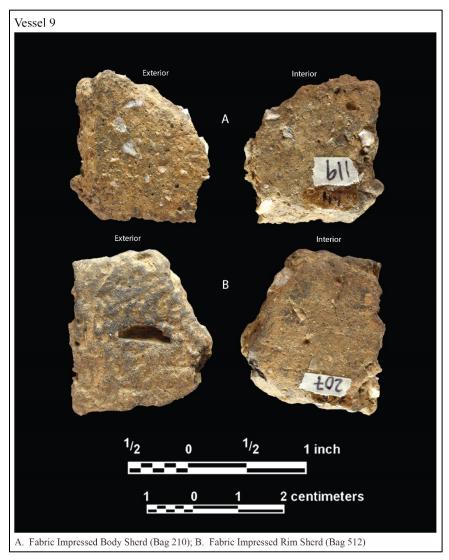


Figure 11. Photographs of Vessel 9 potsherds.

A single sherd from Block 8 was assigned to Vessel 11 (Figure 13). The exterior is simple stamped, and the interior is smoothed. The major aplastic is very coarse and coarse crushed quartz. The temper density is moderate. The paste color is 10YR 4/1, and the core configuration is homogeneously light gray. There is no core retention.

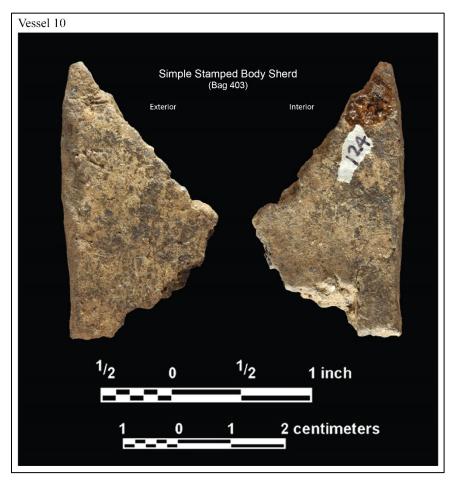


Figure 12. Photographs of Vessel 10 potsherd.

Vessel 12

Sherd count: 3.

Total weight: 49.9 g.

Exterior surface treatment: Fabric impressed, variably smoothed. Major aplastic: Coarse, crushed metamorphic rock, low density. Estimated percent of parent vessel: < 1%.

Blocks 1 and 11 contributed the three sherds comprising Vessel 12 (Figure 14). The exterior surface was fabric impressed, and then smoothed to a point that the fabric impressions were difficult to detect. The interior is shell scraped. The major aplastic is coarse, crushed

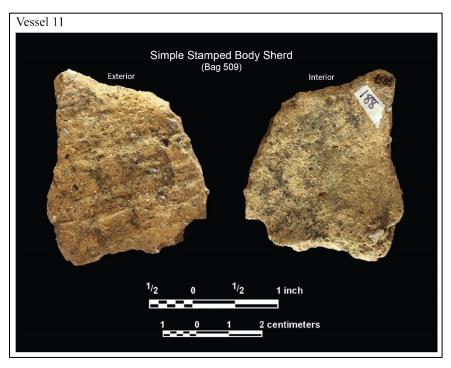


Figure 13. Photographs of Vessel 11 potsherd.

metamorphic rock. The temper occurs at a low density. The paste configuration is red-dark, and the major paste color is 10YR 2/1. There is 55 percent core retention.

Vessel 13

Sherd count: 1.
Total weight: 10.1 g.
Exterior surface treatment: Fabric impressed, moderately smoothed.
Major aplastic: Coarse and very coarse, crushed quartz, moderate density.
Estimated percent of parent vessel: < 1%.

A single sherd from Block 10 was assigned to Vessel 13 (Figure 15). This exterior surface has moderately smoothed fabric impressions. The interior is smoothed. The major aplastic is coarse, crushed quartz, which also occurs occasionally. The temper density is moderate. The major past color is 7.5YR 4/3. The core is homogeneously red, and there is no core retention.

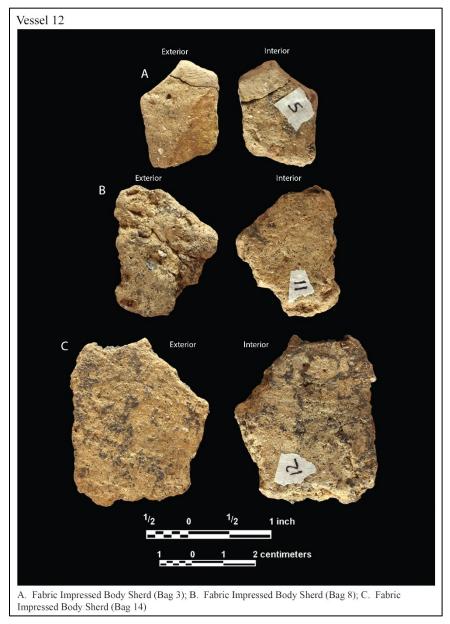


Figure 14. Photographs of Vessel 12 potsherds.

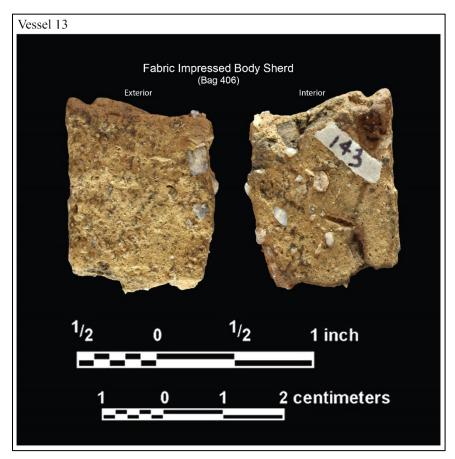


Figure 15. Photographs of Vessel 13 potsherd.

Vessel 14

Sherd count: 1. Total weight: 14.7 g. Exterior surface treatment: Fine fabric impressed. Major aplastic: Coarse, crushed metamorphic rock, low density. Estimated percent of parent vessel: < 1%.

A single sherd from Block 1 was assigned to Vessel 14 (Figure 16). The exterior is impressed with a fine, soft weave/soft weft fabric. The interior is smoothed. The compact paste has coarse, crushed rock as the major aplastic. The temper is notable for its low density. The homogeneously dark core has a paste color of 10YR 2/1. There is 100 percent core retention.

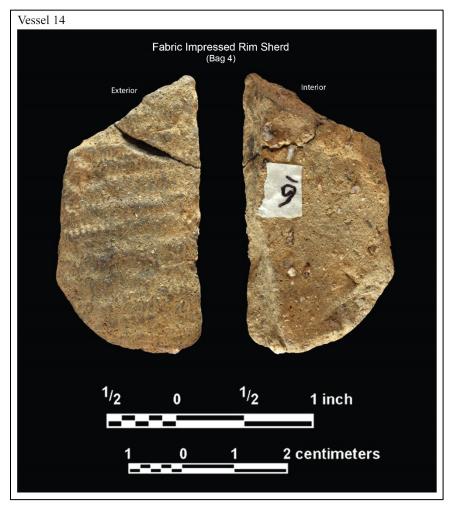


Figure 16. Photographs of Vessel 14 potsherd.

Vessel 15

Sherd count: 1.

Total weight: 14.9 g.

Exterior surface treatment: Fabric impressed, minimally smoothed. Major aplastic: Coarse crushed metamorphic rock, moderate density.

Estimated percent of parent vessel: < 1%.

Vessel 15 is represented by a single sherd from Block 10 (Figure 17). The exterior is fabric impressed, with only minimal smoothing.



Figure 17. Photographs of Vessel 15 potsherd.

The interior is smoothed. The major aplastic is coarse crushed rock. The temper occurs at a moderate density. The paste color is 10YR 2/1, and the core configuration is homogeneously dark. There is 100 percent core retention. The single sherd appears to capture a of point of inflection on the vessel wall. There is not enough of the vessel present to verify the inflection and to determine the vessel form.

Vessel 16

Sherd count: 2.
Total weight: 26.2 g.
Exterior surface treatment: Fabric impressed, moderately smoothed.
Major aplastic: Coarse crushed metamorphic rock, moderate density.
Estimated percent of parent vessel: < 1%.

Two sherds from Block 2 were sorted as Vessel 16 (Figure 18). The exterior surface is fabric impressed, moderately smoothed. The interior is smoothed. The major aplastic is coarse, crushed rock. The aplastic density is moderate. The homogeneously dark core configuration has a paste color of 10YR 2/1. There is 100 percent core retention. The rim is directly round (see Figure 2). There are no fabric impressions on the rim.

Absorbed Residue Analysis

Absorbed residue analysis has the potential to provide information about how a vessel was used and what types of food resources were processed, such as plants, mammals, or fish. It is based on the premise that certain compounds can be extracted that were present during cooking or other uses. Residues are slowly absorbed into the vessel matrix over its lifetime and, as a result, may reflect the processing of multiple resources. Sherds were selected for absorbed residue analysis prior to the vessel analysis (Patch et al. 2019).

Sherd 205 from an unknown vessel had evidence of the biomarkers sitosterol, unsaturated fatty acids, alkanol, and anthracene. These residues reflect primarily plant processing. Sherd 24 (possibly Vessel 7), Sherd 151 (possibly Vessel 5), and Sherd 30 (likely Vessel 9) did not contain any biomarkers, but did contain abundant unsaturated fatty acids, and were interpreted as reflecting probably primarily plant processing. All four samples contained abundant lipids and may have been used to cook or process wet resources in some way.

Commonalities

In addressing whether the vessels are from one or multiple components, it is important to consider commonalities and differences. In regard to exterior surface decoration, 12 of the 16 vessels are fabric impressed, and two additional smoothed vessels may have been



Figure 18. Photographs of Vessel 16 potsherds.

originally fabric impressed. Two simple-stamped vessels are the outliers. Although fabric impressing co-occurs with other surface treatments through much of the Woodland period in the Piedmont, the numerical domination of fabric impressing says something about the site use history. The strong representation of fabric impressing, the low

incidence of simple stamping and cord marking, and the complete absence of net impressing, check stamping, and complicated stamping suggest that all use of the site occurred in a relatively short span of the Woodland period when one or more local groups preferred to fabric impress their pots.

The interior surface treatments are dominated by smoothed surfaces (13 of 16); the three others are shell scraped. Unfortunately, smoothed interiors are prevalent through much of the Woodland period.

The major aplastics are variable and include one vessel with no apparent temper, one with steatite, eight with crushed metamorphic rocks, and six with crushed quartz. It has been suggested that, in the Early and Middle Woodland periods, there was a generalized approach to tempering, in which the size and density may have been more important than the actual type of the rock (Espenshade 1996). Thus, all but one of the vessels share the trait of using some sort of crushed rock as the major aplastic.

Some support for the flexibility in rock type may be seen in the Yadkin-related ceramic assemblages at 38SU83 (Blanton et al. 1986), the Doerschuk site (Coe 1964), and the T. Jones site (Woodall 2009). In these cases, the surface decorations, vessel forms, raw material (quartz), aplastic size class, and aplastic density were similar to Coe's (1964) type specimens. However, Coe had crushed quartz as the aplastic, while 38SU83 and Doerschuk had rounded quartz. Woodall (2009) noted much variability in the type of crushed rock for this span at the T. Jones site. A possibly related series in southwest Virginia, the Grayson series, features various types of crushed rocks, including quartz, quartzite, and granite-gneiss (Holland 1970).

Excluding the one vessel with no apparent temper, 14 of the vessels have coarse or very coarse aplastics, and one outlier has granule aplastics. Coarse and very coarse aplastics are consistent with the expectations for the Yadkin series (Coe 1964), while very coarse and granule are typical of the Grayson series (Holland 1970).

The Yadkin series, the best-studied Early-Middle Woodland pottery series in the North Carolina Piedmont, is characterized by a high density of aplastics. The present collection, however, does not share that trait. Of the 16 vessels, the following density classes are represented: none (n=1); low (n=3); low-moderate (n=1); moderate (n=10); and moderate-high (n=1). This aplastic density is similar to what Holland (1970) reported for the Grayson series in southwest Virginia. Ten of the vessels

have a dark paste color and a core retention of 55–100 percent (mean of 91.5%). The other six vessels have brown or red paste colors and no core retention.

It is unclear why an assemblage from the North Carolina Piedmont would be dominated by fabric-impressed vessels, in the absence of cordmarked, check-stamped, and net-impressed pots. In the Yadkin series and the Grayson series, fabric-impressed sherds are found with these other surface treatments. Indeed, there are no series expected in the North Carolina Piedmont that would have such an overwhelming percentage of fabric-impressed pots. The only regional parallel might be Dunlap Fabric Impressed of northwest Georgia. In some Early Woodland sites (circa 1200-600 B.C.) in northwest Georgia, assemblages can be strongly dominated by Dunlap Fabric Impressed sherds, occasionally with a minor presence of simple-stamped sherds (Espenshade 2008:Figures 13, 29, and 44). This is not to imply that the occupants at 31GF466 were necessarily culturally related to the makers of Dunlap Fabric Impressed pottery. Instead, the 31GF466 assemblage may be documenting one of many localized variations in the Early-Middle Woodland span throughout the Southeast.

Per Coe's (1964) sequence, the Badin series should have been present in the Early Woodland period. This series is defined as fine sand-tempered (or possibly untempered) with cord-marked, fabricimpressed, and plain types (Coe 1964). It may be that the apparent rigidity of the Coe (1964) sequence is, in part, the result of studying only a very few sites. Looking to northern Georgia for comparison, as more sites were examined and dated there, the Wauchope (1966) models of uniform ceramic change have proven to be inadequate. It has been revealed that there is a great deal of local variation in Early and Middle Woodland manifestations (Espenshade 2008).

The Palimpsest Issue

When the overall distribution of pottery at 31GF466 is considered, it is clear based on sherd counts that the site reflects a markedly nonrandom deposit. Sherd counts for the blocks containing pottery had counts ranging from 1 to 117 sherds. The distribution is highly linear along a NNE-SSW bearing, with a peak in the area of Blocks 8 and 10, and a severe distribution decay in all directions (Figure 19). The major trend is for a long tail to the SSW and a shorter spur to the NNE of the Block 10 peak.

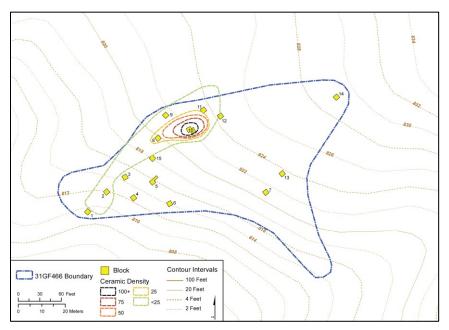


Figure 19. Interpolated density contours by sherd count at site 31GF466.

If the site experienced the use of distinct vessels in diverse site loci, secondary hot-spot anomalies would be expected, rather than a consistent decrease with distance from Block 10. Furthermore, the linearity of the sherd distribution suggests the historic plowing in NNE-SSW direction, effectively smearing and spreading sherds from a single, tight locus of activity. The sherd distribution will be more closely examined below by plotting the constituent sherds for each vessel.

The low count of sherds assigned to any given vessel hinders the distributional study; however, Figure 20 shows that 12 of the 16 pots occurred only in a single block. Even for the better-represented vessels, there was a tendency for all the contributing sherds to come from a single block. The six sherds comprising Vessel 1 and the eight sherds from Vessel 5 all came from Block 10. For Vessel 4, six of the sherds came from Block 8 and one sherd came from adjacent Block 9. These distributions suggest relatively minor post-depositional movement of sherds.

As the vessel plots confirm, the dispersal patterns suggested by the overall sherd plot, the focus at Block 10 is likely the result of either a single occupation or a few annual re-uses of the site by the same small group. The sherds were originally deposited in a highly restricted area,

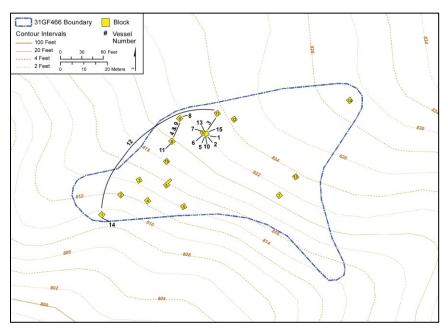


Figure 20. Vessel distributions at site 31GF466.

but in an area not marked by distinct topography. All but two vessels have contributing sherds that originated in a 23x13-m area. This seems to be a tight distribution, especially given that historic plowing may have minimally dispersed certain sherds.

As discussed above, the technological and decorative attributes of the vessels suggest that they may be from a relatively short temporal span. The question then becomes why there would be focused re-use of this specific portion of the landform, and how would visitors returning to the site know where to again focus their activities. It seems likely that the ceramic remains represent multiple site use episodes, possibly annual revisits by the same family group. Their memory of the location and, possibly, surface signs of the prior occupation (e.g., a hearth) would lead them to re-use almost the exact same space.

Modeling Site Use Intensity

Figure 21 provides a series of possible scenarios for modeling site use, with each premise presented in bold type. These scenarios are based upon stacked premises, the first of which is that the 16 vessel lots represent approximately 50–75 percent of the vessels leaving sherds at the site. The 50–75 percent is only an estimate based on the appearance

		sel Lots					
Vessel Lots Captured 50% of Damaged Vessels at Site 32 vessels damaged at site		Vessel Lots Captured 75% of Damaged Vessels at Site 21 vessels damaged at site					
					•	g damage occurs years of pot use	
				8 years of pot use		5.25 years of pot use	
5 pots per family	10 pots per family	5 pots per family	10 pots per family				
1.6 years by one	0.8 years by one	1.05 years by one	0.52 years by one				
family	family	family	family				
or	or	or	or				
0.8 years by two	0.4 years by two	0.52 years by two	0.26 years by two				
families	families	families	families				
Visits of 1 month	Visits of 1 month	Visits of 1 month	Visits of 1 month				
each	each	each	each				
19.2 annual revisits	9.6 annual revisits	12.6 annual revisits	6.3 annual revisit				
by one family	by one family	by one family	by one family				
or	or	or	or				
9.6 annual revisits by	4.8 annual revisits	6.3 annual revisits by	3.2 annual revisit:				
two families	by two families	two families	by two families				

Figure 21. Modeling of site use episodes at site 31GF466. Premises are indicated by bold type.

that our excavations seemed to capture the bulk of all the ceramic scatters, and based on the high success in sorting sherds to vessel lots.

As discussed above, the next premise is that Early-Middle Woodland pots experienced sherd-producing damage at a rate of once every 0.25 year of use. The scenarios then are built on the assumption that a unit similar in size to a nuclear family had 5-10 pots in use at any one time.

The end result from such premise-heavy modeling is not any absolute statement about the number of families, how many times they used the site, and the amount of time spent there. Instead, the modeling suggests that a relatively few, short-term site use episodes by a small number of people could have accounted for the observed pottery assemblage.

Generalized Tools

The data for addressing this research area were limited by the low representation for any given pot. In no case was it possible to reconstruct the entire vessel profile from base to rim, thus, it is not feasible to address any formal variation that may have been present. However, as argued elsewhere, the very limitation of the assemblage may be instructive. The collection includes at least 16 vessels, only one of which represents two percent of its parent vessel, and another that represents one percent of its parent vessel. The remaining 14 vessels each represent less than one percent of their parent vessels. This limited damage pattern and the lack of large vessel sections or curated whole vessels is suggestive of generalized use. There was not a specialized activity with a specialized set of pots, such that a number of those pots were destroyed or cached at the site. Instead, there is a large number of vessels that lost only a sherd or two before being carried off to the next site.

The only rim segment sufficiently large to yield a reliable estimate suggests a rim diameter of 26 centimeters. This does not suggest either a large pot for specialized, large-scale processing, or a constricted, smallmouth vessel for storing foodstuffs.

The post-depositional conditions were not conducive to the preservation of soot. Likewise, the limited representation of each parent vessel meant it is highly unlikely that use wear could be recognized. All four of the vessels subjected to absorbed residue analysis yielded absorbed residues indicative of preparing some variety of plant foods.

Final Thoughts on Pottery

The assemblage from 31GF466 is not a perfect match for any series or types defined in the region. Ward and Davis (1999:86) noted that variability in early ceramic traditions was expected across the Piedmont. The lack of datable contexts and materials at the site, and the dearth of research on sites of this period in this portion of the North Carolina Piedmont combine to limit interpretations of the pottery. The dominance of fabric impressing for surface treatment and the prevalence of very coarse, crushed rock temper suggest that the assemblage represents one of many localized manifestations of an Early-Middle Woodland tradition that included the Yadkin series and the Grayson series.

The spatial patterning and the overwhelming prevalence of fabric impressing suggest that the site represents deposits from a relatively short time span. It appears that one or two family groups re-used the

location, perhaps seasonally, over a decade or so. The breakage pattern (a few small sherds from multiple vessels) is consistent with that seen for other mobile Woodland groups in North Carolina (Patch and Espenshade 2011).

The prevalence of fabric impressing (98 of the 135 sherds with recognizable surface treatment, 12 of the 16 vessels), the minor representation of simple stamping and cord marking, and the complete absence of net impressing are not expected under the series definitions of Coe (1964) and Holland (1970). This may be a product of Coe and Holland concentrating their research efforts on sites that were often multi-family congregation sites. Additionally, the Yadkin series and Grayson series may reflect an array of diverse local manifestations rather than a broad tradition. As more minor sites of this span are examined, it will be interesting to explore further the mosaic of the Early-Middle Woodland in the Piedmont. The 31GF466 materials suggest that the complexity has only begun to be understood, and documentation of the variability will be a crucial first step before archaeology can begin to say why such variability existed and when and why it may have disappeared.

The Woodland period in the Piedmont continues to pose a challenge to archaeologists. Beyond large village sites from the Late Woodland, many sites generally appear to reflect short-term, limited activities. Because of these challenges, current models do not adequately explain Woodland subsistence-settlement systems. Sites such as 31GF466 are small, have limited artifact assemblages, and do not contain the same types of assemblages or deposits as larger camps, hamlets, or villages. They reflect a different aspect of Woodland settlement systems that has not been studied in detail. This can be partially attributed to their low visibility, presumed low data return, and lack of research priority. However, these types of sites have the potential to yield information on overall Woodland archaeological research.

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BOOK REVIEW

Claude J. Sauthier and his maps of North Carolina: An Interpretive Guide. Stewart E. Dunaway. Self-published through LULU.com, 2016. 98 pp., illustrations, foot notes, index. \$35.95 (trade paperback), ISBN 978-1-365-03154-0.

Reviewed by Thomas E. Beaman, Jr.

Historians and archaeologists have long studied and relied upon the detailed town maps produced by European cartographer Claude Joseph Sauthier. Between 1768 and 1770, at the behest of Royal Governor William Tryon, Sauthier produced twelve maps of the ten most commercial urban centers in the North Carolina colony (the extra two town maps he produced were for Edenton and New Bern that illustrate slight differences). In 1771, he also produced at least one map of the camps and battle of Alamance, a decisive conflict between the Regulator Movement and Tryon's militia. From the still extant buildings and landscape features which appear on Sauthier's maps, these maps are generally considered to be nearly as accurate as aerial photographs. As such, for more than three-quarters of a century of archaeology, these maps have been used to guide and assist in the interpretation of findings from field investigations in these towns and Alamance Battlefield.

Author and editor Stewart Dunaway—whose Amazon.com page claims to have completed 265 books (passing 87,000 pages) in December 2018—recently produced a glossy self-published text on Sauthier and his maps. Like many of Dunaway's other works, this text is aimed towards a general audience to educate and illustrate the historically interpretive value of these maps. Much of the information in this this text will be familiar to those who have seen or worked with the Sauthier town and battlefield maps. While there is merit to this publication for those who are just introduced to Sauthier, it must be stated upfront that there is not a single mention or inclusion of the revelations of many years of published archaeological research on Sauthier's maps.

Dunaway's work is divided into five major sections: a biography of Sauthier and his association with Tryon; a review of the ten town maps contained in the King's Library of the British Museum; emblems; details on the scale and cartography; and miscellaneous features. The first section, well-cited research from America and in Europe, centers on the biographic details of the life, training, and works of Claude Joseph Sauthier. Many of the questions and unknown details about Sauthier's life are addressed, many of which first appear in this text. Born in Strasbourg, France, the details of his life and Protestant upbringing led Dunaway to conclude that the Sauthier family were French Huguenots. Dunaway further concludes that he trained in architecture and drafting. Many papers and drawings of his academic training were located and are preserved in the Strasbourg Archives.

Dunaway acknowledges that Sauthier's five-year tenure in North Carolina still has many unanswered questions. Sauthier arrives to the North Carolina colony in 1767, but what brought him here? Did he work with John Hawes on the design and construction of Tryon's Palace? How did Sauthier meet Tryon? Did he know or was he associated with cartographer Captain John Collet, who also arrived in 1767? Did he own property in North Carolina, as he did later in New York? One interesting fact that did emerge from Dunaway's research was that Sauthier also produced a map of the North Carolina coastline, but it was lost at sea in September 1806.

His life after his 1771 departure from North Carolina, including work with Tryon and production of maps of New York, his return to London to produce land maps for Duke of Northumberland, and eventual return to Strasbourg is also well researched and cited. Dunaway references William Cumming on Sauthier's death in Strasbourg on November 26, 1802, but admits a thorough search did not produce the location of grave.

The remaining four sections all contain many well reproduced highresolution images of specific features of the original maps. The second section, a review of the maps, begins with an explanation of the cartouches and rose compasses, as well as how town lots appear on the maps (either hedgerows, dotted lines, or solid lines). Dunaway provides an interesting visual comparison of how an overlay of the town lot plat fits on the map of Hillsborough. The remainder of this section is primarily quantitative and comparative, with charts of households, populations, elements, road routes, rivers, and streams. Much of the data published in *North Carolina Archaeology* articles (Beaman 2017:80–82; Beaman et al. 1998:16–18) well corroborates the same information calculated by Dunaway.

The third section focuses upon the map emblems, or the primary structures, outbuildings, and gardens, some of which are identified with a letter label on the cartouche, while the majority are not. This largely comparative section encompasses a full third of the text (pp. 32–65).

Specific topics in this section include churches, courthouses and jails, schools (academies), commercial buildings, taverns, tanneries, breweries, mills, urban dwellings, farms, outbuildings, detached kitchens, barns (including stables and carriage houses), outhouses, gardens (including formal and kitchen/vegetable gardens), orchards, and tree-lined entrances and streets, each with a short commentary.

Several specific topics in this third section warrant both compliment and critique. The red shading of dwellings and many (but not all) primary buildings have long been an interpretive question. Were they indicative of buildings in use or occupied, or did it represent a two-story building? Given the maps were made for Tryon by presumed Loyalist Sauthier, Dunaway hypothesizes the red-shaded buildings indicated spaces where British troops and officers could be quartered if necessary. This provides the most logical interpretation to date. He should have also noted that his computerized building measurements also include the space for porches, as shown with the Palmer-Marsh House in Bath and many of the buildings at Brunswick Town. Regarding gardens, Dunaway notes that there are only two designs to gardens on all the maps, and may not represent the actual garden layouts. This was also observed by archaeologists who, in the absence of archaeological evidence, questioned whether formal gardens and ancillary buildings actually existed where shown by Sauthier (Ewen et al. 2002)-and bravo to Dunaway for including their thoughts later in the text (pg. 69). While Dunaway admits that "there is nothing more difficult to precisely determine than these outbuildings" (pg. 53), again, Dunaway should have consulted archaeologists. Many of the outbuildings on all of the maps have been identified through archaeological investigations over the past 70-plus years. His sections on privies-which begins, "It is assumed that every home had a privy or necessity" (pg. 56)—is flat out wrong. In the era of ceramic chamber pots, a small X building located near a home does not necessarily indicate a privy. The earliest privy buildings began to be built beginning intermittently from the 1780s to the 1820s, but it is not until the era of sanitation in the 1880s that every home may have had a privy (Carnes-McNaughton and Harper 2000). The only eighteenthcentury privies identified archaeologically are the First Jail in Halifax (ca. 1780) and one at the Homestead in Edenton (ca. 1792) (Beaman 2017:89-90).

The fourth section begins with a discussion on scale and accuracy of Sauthier's maps. In an attempted overlay of a modern map of the Alamance Battleground and Hillsborough to Sauthier's original maps, he notes their accuracy. However, he observes that further out from the main area on the map things (such as plantations) are not to scale. Again, kudos to his citation here of Ewen et al. (2002) to suggest the gardens, outbuilding, and ancillary features may be no more than artistic embellishment by Sauthier, but he lacks mention that this was determined through many years of archaeological research.

The remainder of section four and section five could be combined into a general miscellaneous landscape category. It includes observations on rivers and streams, lakes and ponds, springs, land types, marshes, rock outcroppings, forests, roads, race grounds, flag staffs, wharves, and canals. As with section three, each topic is amply illustrated with brief accompanying text. Dunaway includes brief comments about the Alamance battle map as an appendix.

Despite comments in the text above, there are positive elements in this work. The high-resolution graphics that focus on specific elements of the Sauthier maps are outstanding. The size of these details are adequate, but even without a scale on the enlargements, having specific lots or structures shown larger is beneficial. Dunaway's text is largely descriptive and not overly analytical, which makes it very accessible to a general audience, as well as students taking North Carolina history classes and beyond.

There are a few additional drawbacks to be noted. This work lacks a formal conclusion; it ends after a discussion of canals and a note on the Alamance map. Having images of all the maps in their entirety, not just Hillsborough and Alamance, would have been a nice addition. Though the text is generally well cited, many of the citations are from Dunaway's other works or based on the unpublished ideas of others. Despite the glossy pages and high resolution images, the price is very steep for a trade paperback, especially when all of the images can be viewed online or copies of the actual maps located at the North Carolina State Archives.

As *Claude Joseph Sauthier and his maps of North Carolina* is written for and aimed at a general audience unfamiliar with Sauthier, Dunway achieves his goal. However, Dunaway's text and the overall work could have been greatly enhanced and offered much more insight with the inclusion of archaeological research done on structures and features on all of Sauthier's North Carolina maps, including Alamance Battleground. While some of this information is buried in gray literature, a wealth of documentation on these maps is published and publicly available in *The North Carolina Historical Review* and on the internet in many past issues of *North Carolina Archaeology*. Should Dunaway plan

a second edition of this work, it would well behoove him to consult and include archaeological research. The addition of such information would have made *Claude Joseph Sauthier and his maps of North Carolina* a truly more interpretive guide and not just a largely comparative catalog of images containing structures and features from Sauthier's maps.

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