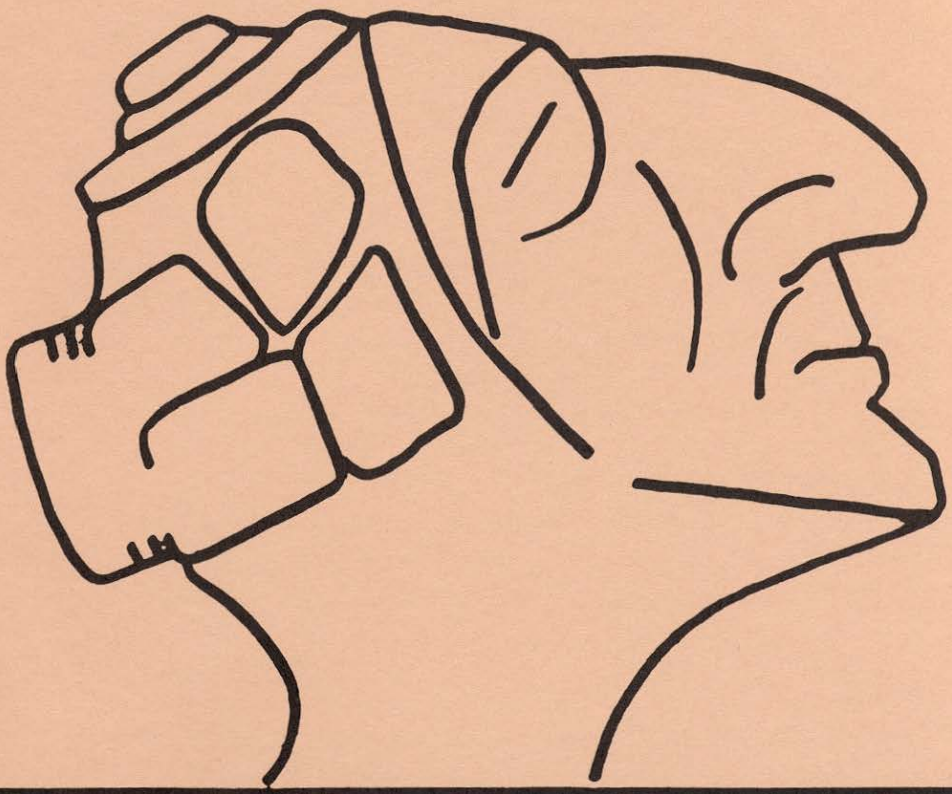
SOUTHERN INDIAN STUDIES



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Volume XXXIII October 1984

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Note from the Editor

In addition to its large on-going projects, the Research Laboratories of Anthropology has, over the years, conducted many smaller, more modest surveys and salvage endeavors. Although small, these projects often have produced important information about the early cultures of North Carolina and surrounding states. This volume of *Southern Indian Studies* reports on just such a project. The Cane Creek excavations, conducted under adverse conditions in the winter of 1964, were not written up until 1972. Now, twenty years after the fieldwork, information on this important site is being made available in published format. I hope to publish other reports of this kind in future issues of our journal.

It is also important that we publish reports of research conducted by institutions other than the Research Laboratories and by individuals other than UNC staff and students. I wish to take this opportunity, therefore, to encourage others to submit manuscripts on their work. Papers by non-professionals will be considered equally with those of professionals, and I and my staff will work with each author to make his or her manuscript of publishable quality. Each submission will be critically reviewed and high standards will be maintained.

Finally, I wish to acknowledge the continued assistance of H. Trawick Ward and Estella Stansbury in editing, proofing, and typing the manuscripts for *Southern Indian Studies.*

Roy S. Dickens, Jr.
December 12, 1984

The Cane Creek Site, Mitchell County, North Carolina

Bennie C. Keel
United States National Park Service
and
Brian J. Egloff
Australian National Park Service

INTRODUCTION

The Cane Creek site (31MI3) is situated on the south bank of Cane Creek, a tributary of the North Toe River (Figures 1, 2, and 3), and 1.5 mi east of the town of Bakersville, North Carolina. The creek, originating on the western slope of Cane Creek Mountain, flows in a westerly direction to its confluence with the river just below the community of Loafers Glory. The walls of the creek valley are fairly steep although not high. The lower elevations are covered with second growth hardwoods, whereas the higher ridges and mountain summits support conifer forests. All faunal species identified in the archaeological investigations are still present in the area.

The site was brought to the attention of the Research Laboratories of Anthropology by the owner, Mr. Ed Wilson of Bakersville. Prior to informing the Laboratories of the site, Mr. Wilson had removed a number of graves and dug many holes in attempts to locate others. Unfortunately, he failed to keep any records to document his finds, and consequently much of his collection has no provenience. It was at Mr. Wilson's invitation and with his cooperation, however, that the present investigations of the site were undertaken.

When viewed from the mountain to the south, the site was marked by a number of dark circular patches of earth. The assumption that these circles represented house sites was verified by the archaeological investigations.

Cultural material was much more abundant in these areas than in other areas tested. And, excavation showed that post hole alignments, hearths, and burials were present in the dark areas but absent in others.

During two weeks of field work in late March 1964 weather conditions were bad. It constantly rained, sleeted, or snowed, temperatures hovered around the freezing point, and a brisk easterly wind kept the excavators well chilled. The plowed soil often was frozen to a depth of several inches, which necessitated throwing it aside and waiting until it thawed before

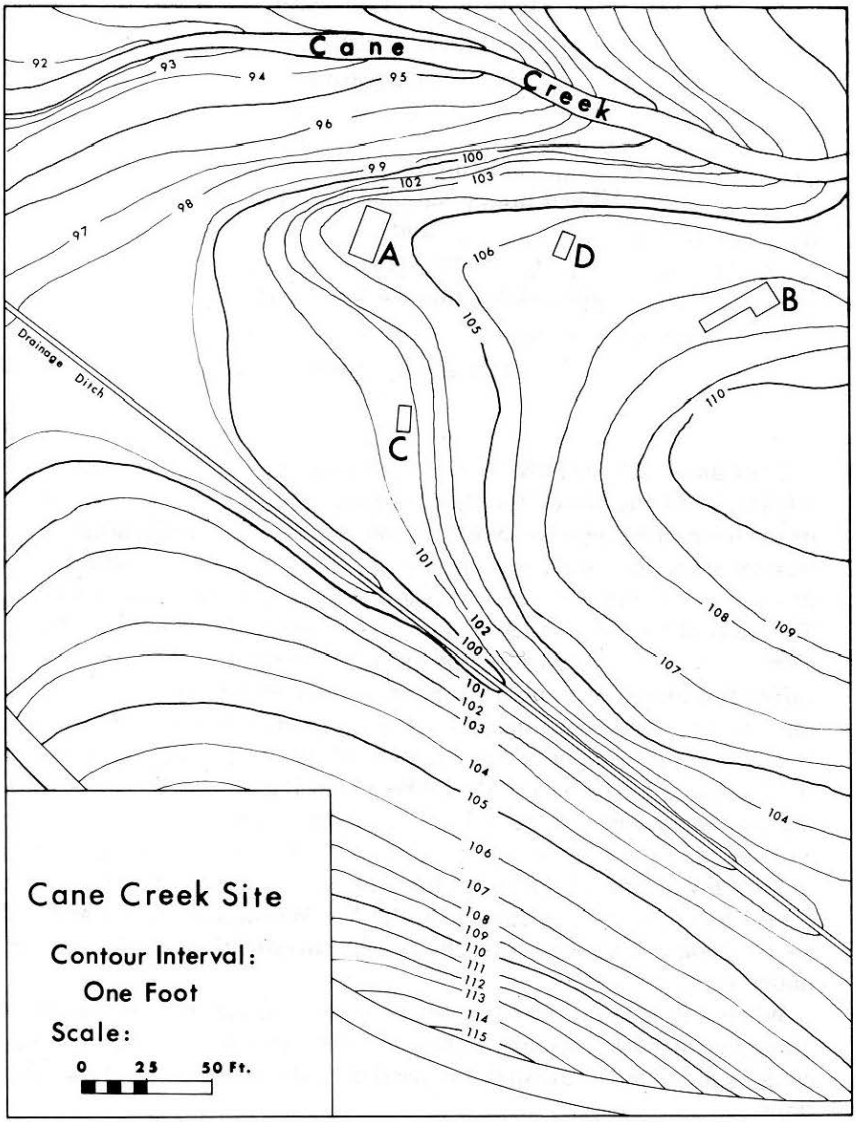

Figure 1.

Topographic Map of the Cane Creek Site.

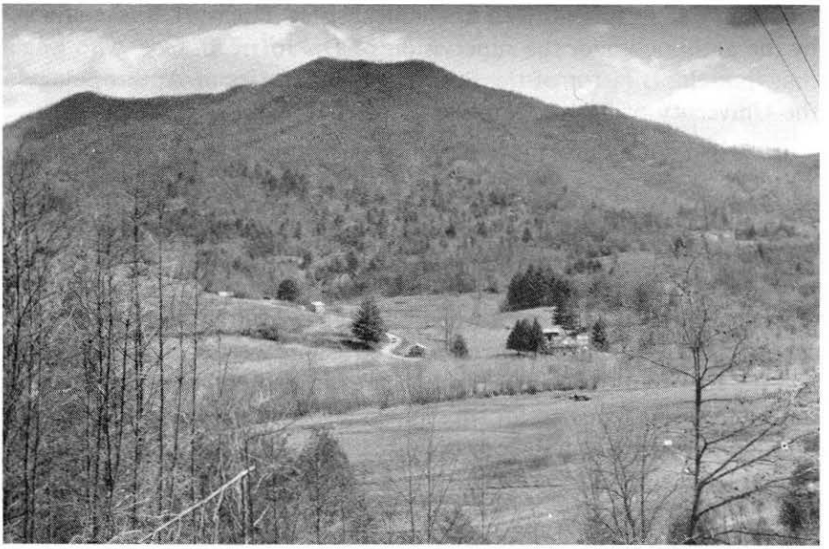

Figure 2.

View of the Cane Creek Site from the South, with Cane Mountain in the Background.

Figure 3.

View of the Cane Creek Site from the West, Looking up Cane Creek.

screening it in a motor-driven mechanical sifter. The work was conducted by the authors, under the supervision of Dr. Joffre L. Coe, who was at that time the Director of the Research Laboratories of Anthropology at the University of North Carolina, Chapel Hill.

EXCAVATION AREAS

Four areas of the site were explored (Figures 1 and 4). Two of these areas (A and B) were marked by the dark circles previously described, whereas areas C and D were not. Excavation techniques consisted of removing the plowzone by shovel, sifting it when it had thawed, trowelling the exposed surface, and recording all intrusions. Intrusions were excavated by trowel and the fill sifted. After these had been excavated and recorded the same procedures were repeated for subsequent layers. All sediments were sifted through .5 or .25 in mesh screens. A total of 12 test pits covered an area of 500 ft^2.

Area A

This area (Figures 1 and 4) was located in one of the dark circles, near the western edge of the site. A total of 200 ft^2 was exposed here. The deepest test, placed in the center of the area, reached a depth of 6.0 ft below surface. The stratigraphy exposed in this test is discussed in a subsequent section of this report. Three burials, three features, and a large quantity of cultural material were recovered in area A (Table 1).

Burials

Burial 1 (Figure 5) was located in the southwest corner of Area A. It had been disturbed by the plow and partially removed by Mr. Wilson. A few undisturbed skeletal elements suggested that the burial was an adolescent inhumed in a flexed position.

Burials 2 and 3 (Figure 6) were badly disturbed by the plow and only the bottom of the pit which contained them was preserved. Burial 2 was an adult female placed on one side of the pit in a loosely flexed position on her right side with the head oriented to the east. A single shell disc bead was found on the sacrum of this skeleton. On the opposite side of the pit the remains of an infant (Burial 3) were present. The skeleton was supine with the skull oriented to the east. Two hundred and seventy-four *marginella* beads were found on the chest, as if sewn to a garment, and a necklace of 38 shell disc beads was found around the neck. The 6 disc beads recovered from the general excavation and a disc bead found on the sacrum of Burial 2 probably also belonged to this necklace.

Table 1. Artifacts from Burial and Feature Pitfill in Area A.

Category	Burial No.		Feature No.			Total
	1	2 & 3	1	2	3	
Ceramics						
Cane Creek Series:						
Plain	8	7	1		15	31
Brushed	4	6			6	16
Smoothed	2	1			7	10
Check Stamped		2				2
Unclassified		2				2
Chipped Stone						
Lamoka			1			1
Ottare Stemmed				1		1
Bone						
Splinter awl		1				1
Shell						
Disc beads		6				6

Features

Feature 1 (Figures 4 and 5) was an oval pit that measured 1.8 x 1.4 ft and had a depth of 0.4 ft. It contained a large number of fire-cracked rocks and 3 unidentifiable fragments of bone.

Feature 2 was a wide, shallow depression that cut across the excavation (Figure 4). This depression was 10 ft long, 4.5 ft wide and 0.3 ft deep. A single stemmed projectile point was found at the contact of the plowed soil and the grey sand fill. This feature appears to have been an erosion channel that had become filled after the site was abandoned.

Feature 3 was an alignment of post holes across the northwestern quadrant of the area. These post holes measured from 0.5 to 0.7 ft in diameter and from 0.6 to 1.1 ft deep, and it is possible that they formed a section of a house wall.

Several small and shallow (less than 0.1 ft) depressions were present in the southern part of the area. Some of these contained very small Cane Creek series sherds and fragments of animal bone.

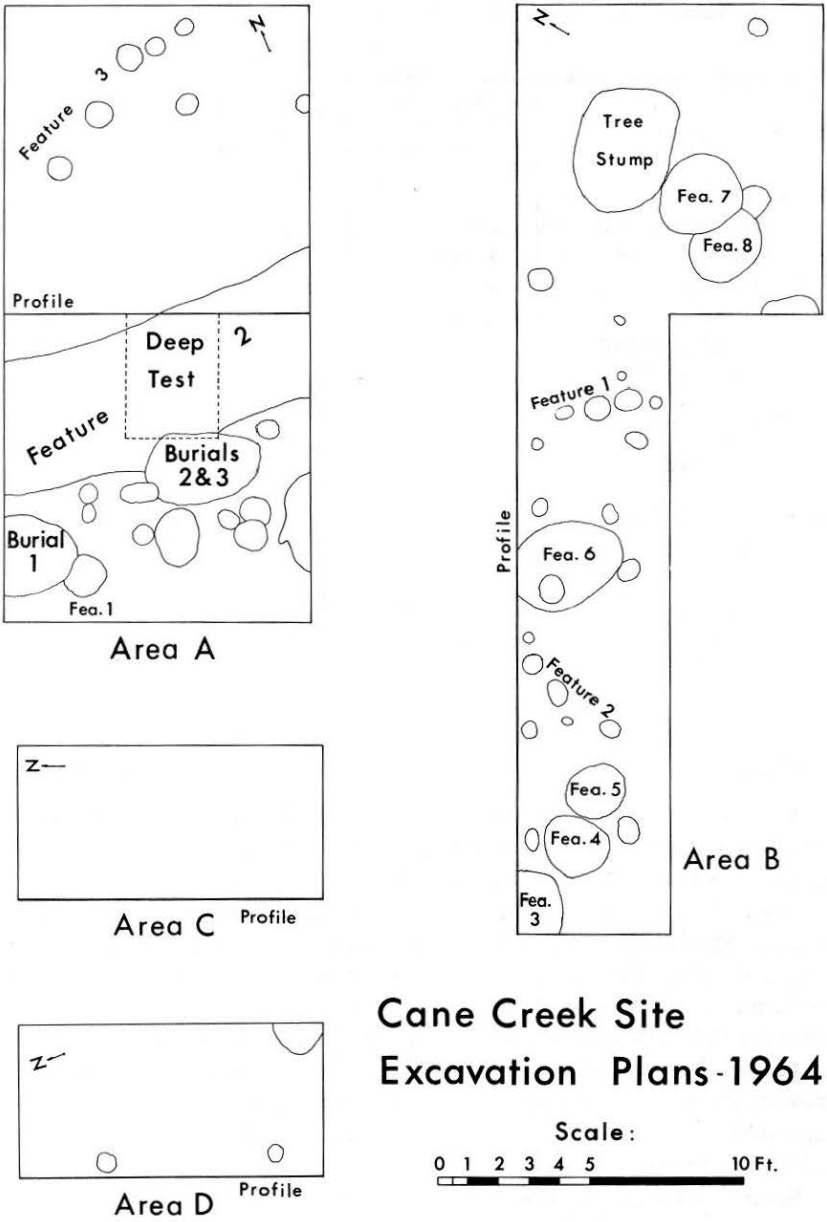

Figure 4.

Plans of Excavated Areas.

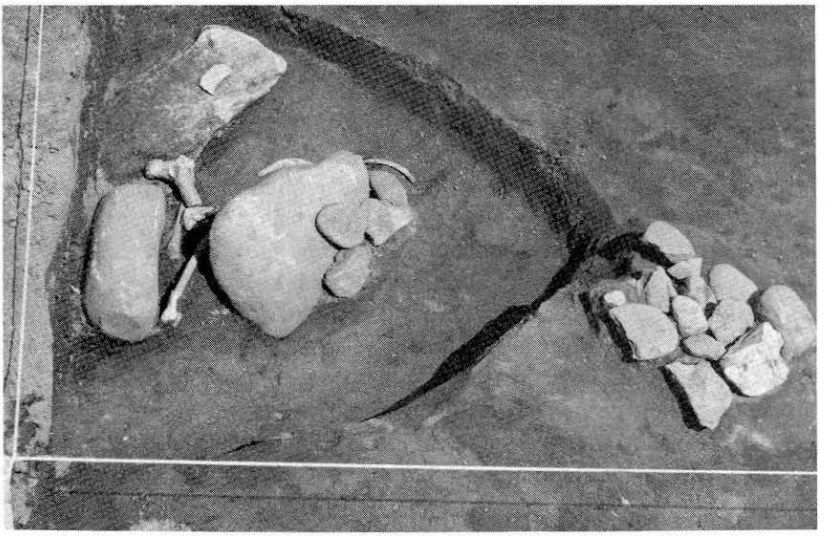

Figure 5.

Burial 1 on Left and Feature 1 on Right in Area A.

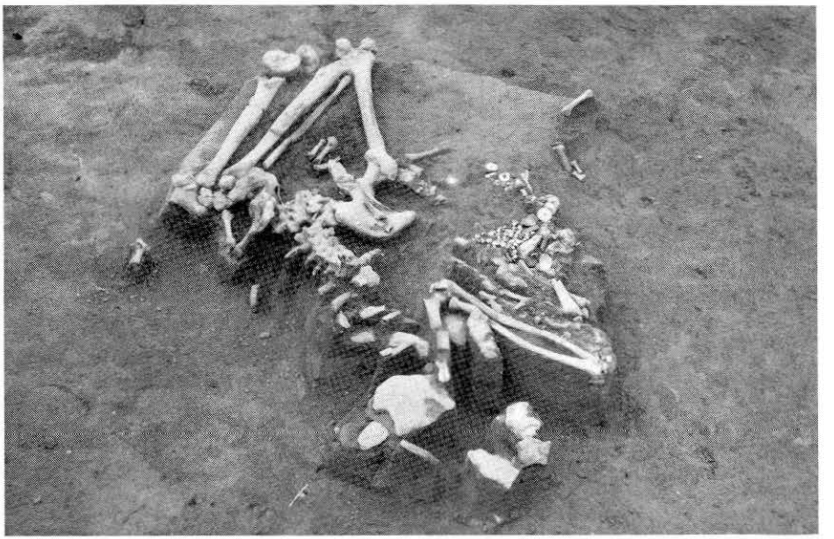

Figure 6.

Burials 2 and 3, Both Severely Damaged by Plowing. Note *Marginella* and Disc Beads Accompanying Burial 3 (Right).

Area B

A series of test squares covering an area of 200 ft^2 were excavated about 125 ft east of Area A in another of the dark circles of soil (Figures 1 and 4). The amount of cultural material recovered was about the same as that found in Area A, but no burials were encountered in spite of the fact that Mr. Wilson informed us that he had found graves in this area. However, 8 features (Figure 4) were recorded. Feature 4 was an alignment of 6 post holes that varied in diameter from 0.4 to 0.8 ft and had depths of 0.4 to 0.5 ft. Feature 5 was a second alignment of post holes which had the same range of measurements as those comprising Feature 4. These two features may represent opposite walls of the same structure. If this were the case, the structure would have measured approximately 12 by 14 ft. A few Cane Creek series sherds were recovered from these post holes. Features 6 through 11 were interpreted as hearths or cooking areas. The physical characteristics of these features are tabulated in Table 2, which also lists their contents.

Area C

This area (Figures 1 and 4) was not marked by the darker surface soil described above, but by a coarse, black sand which contained abundant small weathered schist pebbles. The plowed soil overlay sediments of the same type. Although the area produced 161 sherds (Table 3), these were quite small and extremely weathered, as if mechanically redeposited. No pits were found in this area.

Area D

This area (Figures 1 and 4) was located approximately halfway between Areas A and B. Like Area C, it was not marked by the dark surface soil present in Areas A and B. Two small depressions, possibly the bottoms of post holes, were found here. One of these contained three Cane Creek Plain sherds. The 66 sherds found in the plowed soil were the only other cultural remains recovered from Area D.

STRATIGRAPHY

The stratigraphy of the Cane Creek site, though geologically complex, was simple from an archaeological point of view (Figure 7). Eight strata were encountered in Area A, and a ninth stratum was found in Area C.

Table 2. Description and Contents of Features 6–11 in Area B.

Feature No.	Size (l–w–d)	Contents				Ottare Stemmed	Animal Bone
		Cane Creek Series Ceramics					
		Plain	Brushed	Smoothed	Uncl.		
6	2.0 x 1.5 x 0.75′	16	6	4	7		21
7	2.2 x 2.0 x 0.80	1	2		1		11
8	2.0 x 1.8 x 0.70	1	2	3	1	1	3
9	4.0 x 2.0 x 0.80	2			1		3
10	2.8 x 2.4 x 1.30	10		4	2		
11	2.5 x 2.0 x 1.75	16	6	3	6		
Total		46	16	14	18	1	38

Table 3. Distribution of Ceramic Series by Types.

Series	Area A		Area B		Area C		Area D		Burials Features		Surface		Totals	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Swannanoa:														
Cord Marked			2	.05									2	.05
Plain			1	.03									1	.03
Total			3	.08									3	.08
Candy Creek:														
Cord Marked			2	.05							1	.03	3	.08
Total			2	.05							1	.03	3	.08
Cane Creek:														
Plain	534	13.95	476	12.44	21	.55	32	.84	77	2.01	833	21.77	1973	51.57
Smoothed	137	3.58	257	6.72	2	.05	3	.08	24	.63	239	6.25	662	17.30
Brushed	53	1.38	112	2.93	1	.03	4	.11	32	.84	160	4.18	362	9.46
Cord Marked	8	.21	14	.36	1	.03	9	.24			30	.78	62	1.62
Fabric Impressed											1	.03	1	.03
Check Stamped	17	.44	19	.50					2	.05	46	1.20	84	2.19
Simple Stamped	3	.08	3	.08			1	.03			6	.16	13	.34
unclassified	109	2.85	110	2.87	136	3.55	20	.52	20	.52	268	7.00	663	17.33
Total	861	22.49	991	25.90	161	4.21	69	1.82	155	4.05	1583	41.37	3820	99.84
Burke:														
Complicated Stamped											1	.03	1	.03
Total											1	.03	1	.03
Totals	861	22.49	996	26.03	161	4.21	69	1.82	155	4.05	1585	41.43	3827	100.00

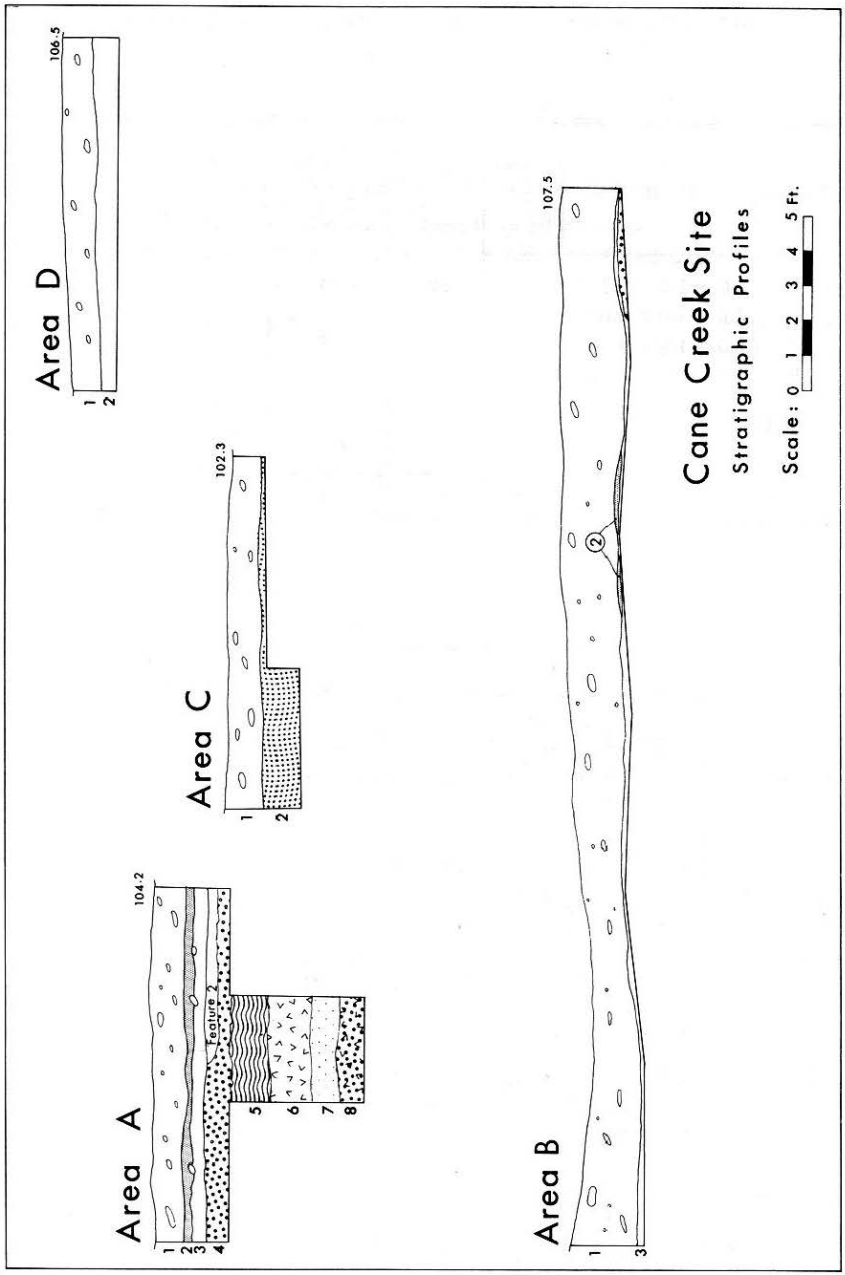

Figure 7.

Stratigraphy of the Cane Creek Site.

In all areas explored, the plowzone was designated *Stratum 1.* It was a medium brown color except in the darker circles, which were nearly black, and in Area C, located near the drainage ditch (Figure 1). Here it was a black coarse sand. The plowed soil contained most of the cultural material as well as a large quantity of cobble-sized quartzite and schist rocks. *Stratum 2,* which consisted of a dark brown layer of medium-sized sand approximately 0.3 ft thick in Area A, occurred only as isolated patches in Area B where it had been almost plowed away. It was absent in Areas C and D. The large amount of cultural material recovered from Stratum 2 suggests that it was only a small remnant of what had been an extensive midden. No cultural material was found below Stratum 2 except in intrusions originating from the base of the plowzone.

Stratum 3 was composed of a layer of light yellow fine-to-medium sand that averaged 0.4 ft thick in Areas A and B, and at least 0.2 ft thick in Area D. This stratum was absent in Area C. Stratum 3 was probably the same depositional unit as Stratum 2, with the differences in color and amount of cultural material being due to midden buildup on top of it.

Stratum 4 consisted of a 0.7 ft-thick layer of weathered schist cobbles in a grey sand matrix. This stratum was encountered only in Areas A and B; however, the lower zone in Area C may correlate with this zone. *Stratum 5* was a 1.0 ft-thick layer of fine-to-medium yellow sand. *Stratum 6* was composed of a layer of dark grey sand 1.2 ft thick. *Stratum 7,* 0.6 to 0.7 ft thick, was made up of a dark yellow medium sand containing a small number of weathered schist cobbles and pebbles. It was distinguished from *Stratum 8,* a layer of undetermined thickness, that was characterized by dark yellow clayey sand containing abundant saprolized schist cobbles and pebbles.

Strata 5–8 were encountered only in Area A. The stratigraphic columns in Areas A and B, down to Stratum 4, were identical. In Area D, the plowed soil rested on a layer of yellow fine-to-medium sand that was identical to Stratum 3 in Areas A and B. The intermediate position of Area D between Areas A and B strengthen this correlation. In Area C, the plowzone rested directly upon a layer of coarse black sand (*Stratum 9*) of undetermined thickness. This layer contained a large amount of extremely weathered schist pebbles. This unit probably corresponds with *Stratum 4* in Areas A and B, but a correlation cannot be proven.

The strata described above resulted from fluvial action during the Recent geologic period (Michalek 1969). Since no cultural material was found below Stratum 2, except in pits originating in higher levels, further discussion of the geology of the site is unwarranted at this time.

ARTIFACTS

The more than 4,000 artifacts recovered from the present investigations, as well as specimens from Mr. Wilson's collection, were analyzed. The analytical methods used in this study have been described elsewhere by the authors (Keel 1972:26–30).

Ceramics

The ceramic collection from the present investigation numbered 3732 sherds. To this number, a portion of the sherds from the Wilson collection were included to describe, as far as possible, the total character of the ceramic industry at the site.

The most remarkable characteristic of this assemblage was its homogeneity (Table 3). Only 8 of the sherds included in the study were not classified in the Cane Creek series. Three of these sherds (Figure 10, a) were limestone-tempered, Candy Creek Cord Marked (Lewis and Kneberg 1946:102–102), and probably were traded into the area from eastern Tennessee. Three sherds were classified in the Swannanoa series (Figure 10, b & c). The Swannanoa series is the earliest pottery found in substantial amounts in the Southern Appalachians (Keel 1972:32). The remaining two sherds (Figure 10, d) were classified as Burke Complicated Stamped (Keeler 1971:34–35). This steatite-tempered ware is considered to date to about A.D. 1200–1500.

Cane Creek Series Type Descriptions

Sherds of this series are characterized by a sandy paste to which crushed quartz or hornblende has been added in small amounts. Surface finishes include plain, smoothed, brushed, cord marked, fabric impressed, simple stamped, and check stamped. All textured surface finishes were poorly applied. Although no complete vessels, except a miniature pot, have been recovered it was possible to reconstruct vessel forms from large sherds. These forms are illustrated in Figure 8 and consist of conoidal jars with and without constricted necks, or simple open bowls. Rims were either straight or moderately flaring (Figure 9). Lips were frequently decorated by notching (42.40%) and rarely by punctating (2.40%). These treatments are illustrated in Figure 9. The distribution of lip forms by ceramic type is given in Table 4. Other decoration was limited to thin shallow incised lines in the neck area of constricted necked jars. Only three sherds (0.08%) of the study collection, all found by Mr. Wilson, were incised.

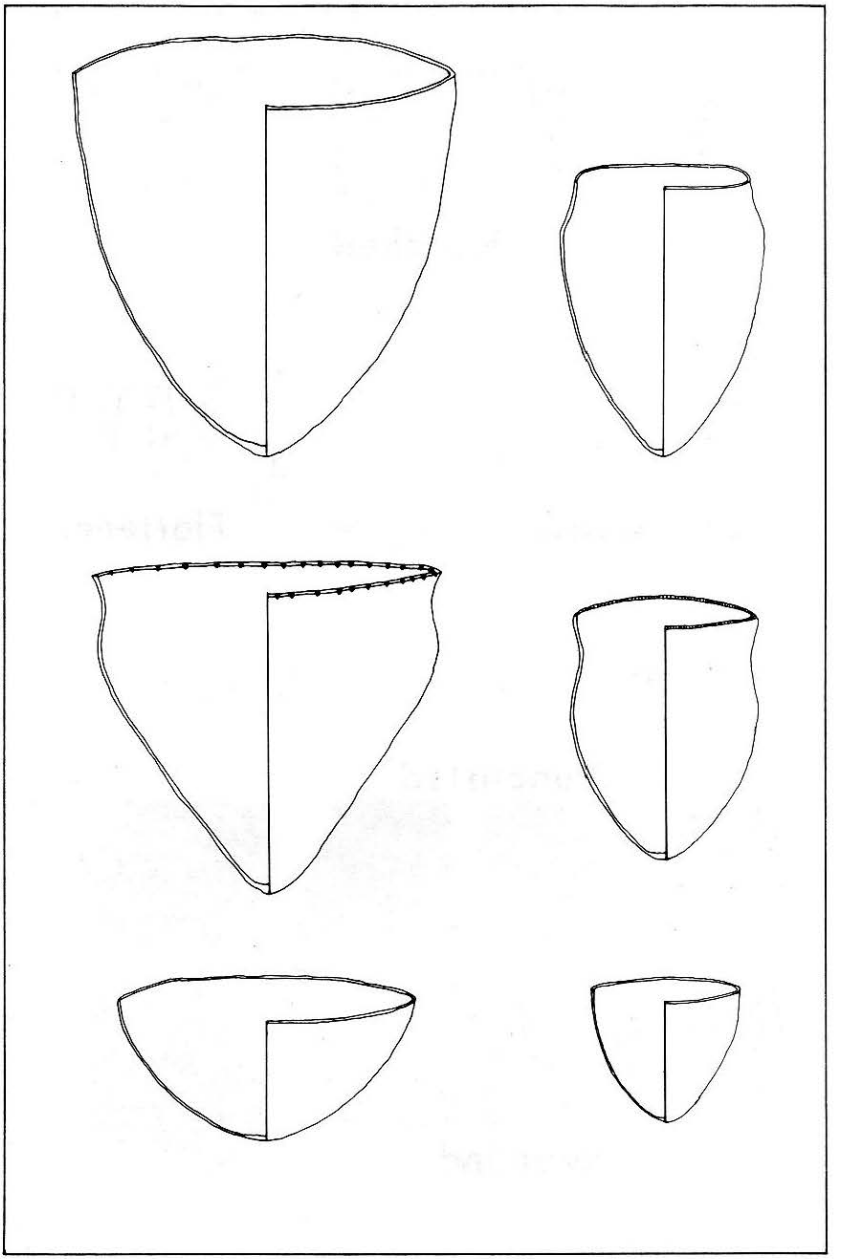

Figure 8.

Cane Creek Ceramic Series Vessel Forms.

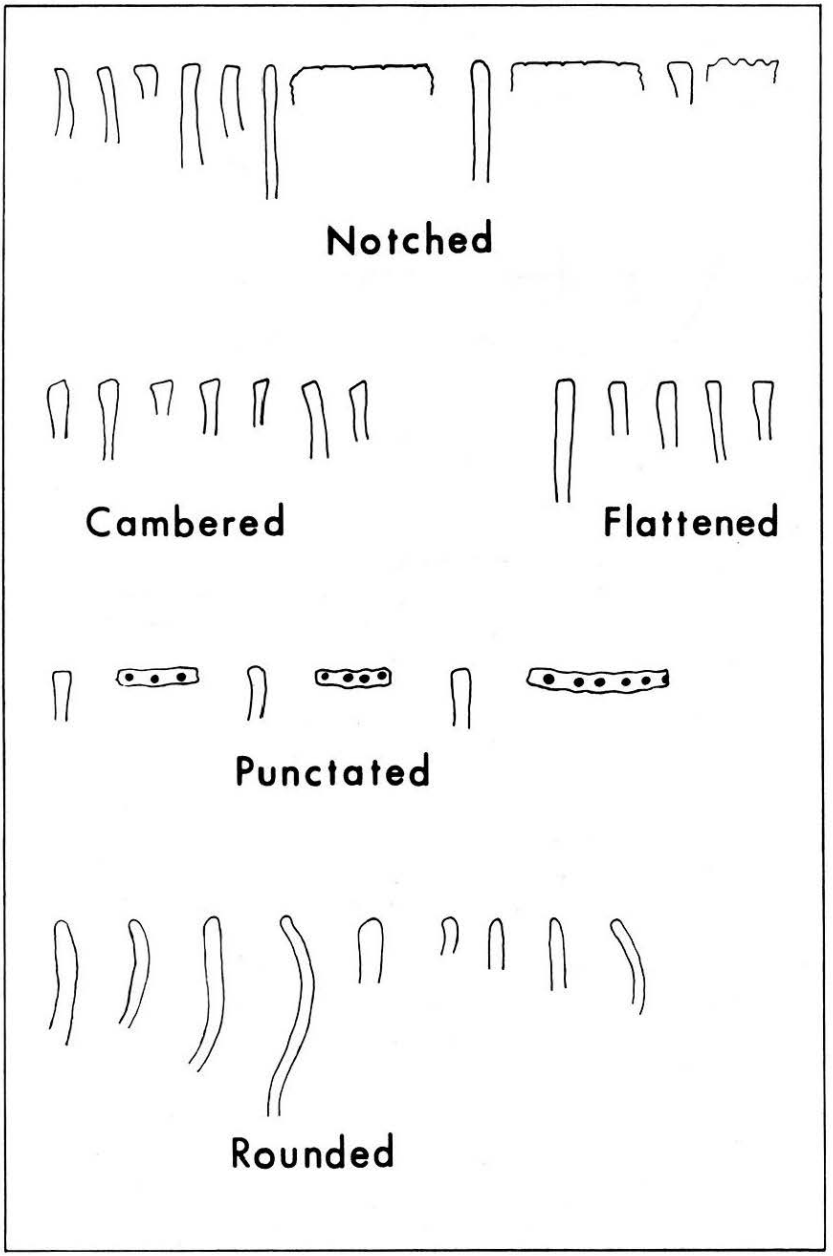

Figure 9.

Cane Creek Ceramic Series Rim and Lip Forms.

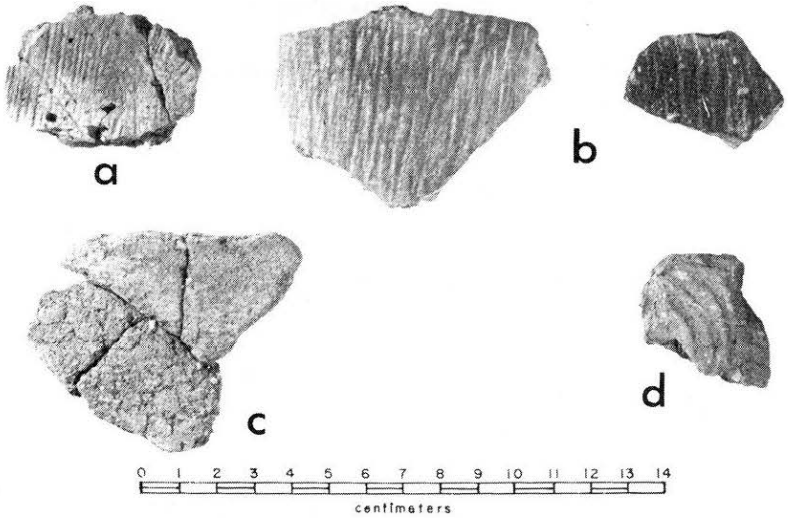

Figure 10.

Pottery Types. a, Candy Creek Cord Marked; b, Swannanoa Cord Marked; c, Swannanoa Plain; and d, Burke Complicated Stamped.

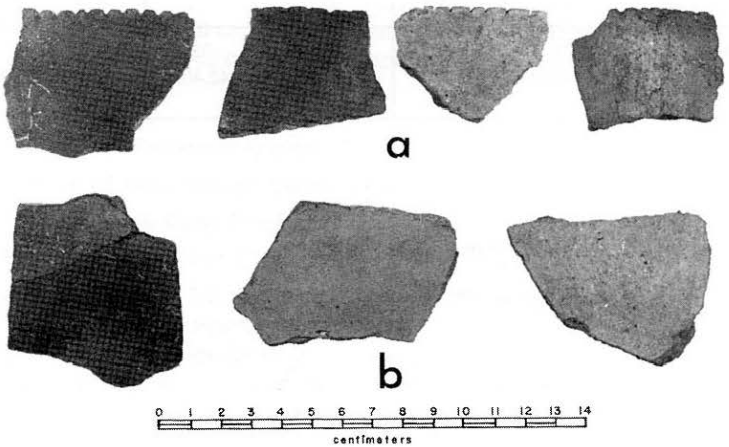

Figure 11.

Cane Creek Series Sherds. a, Plain, Notched Rims; and b, Plain, Body Sherds.

Table 4. Distribution of Lip Forms on Cane Creek Pottery Types (percentages in parentheses).

Type	Flattened	Rounded	Chamfered	Notched	Punctuated	Total
Plain	9 (25.00)	11 (30.58)	3 (8.33)	12 (33.33)	1 (2.78)	36 (100.00)
Smoothed	8 (18.19)	14 (31.81)	1 (2.28)	21 (47.72)		44 (100.00)
Brushed	2 (7.14)	10 (35.71)	2 (7.14)	13 (46.43)	1 (3.58)	28 (100.00)
Check Stamped		2 (33.33)		3 (50.00)	1 (16.67)	6 (100.00)
Cord Marked	1 (33.33)			2 (66.67)		3 (100.00)
Fabric Impressed		1 (100.00)				1 (100.00)
Unclassified	1 (14.29)	3 (42.85)	1 (14.29)	2 (28.57)		7 (100.00)
Totals	21 (16.80)*	41 (32.80)*	7 (5.60)*	53 (42.40)*	3 (2.40)*	125 (100.00)

*percent of total rim sherds.

Cane Creek Plain (Figures 11 and 12)

Method of Manufacture: Annular segments coiled on a disc or cone-shaped base, not well bonded because many coil fractures were noted in the sherds. Exterior surfaces probably malleated before surface was well smoothed. Interior smoothed but coil joints were frequently observed as faint lines.

Paste: (1) Temper: Small to medium amounts of fine sand, to which small quantities of crushed quartz or crushed hornblende was added.
(2) Hardness: Approximately 2.0–3.5 Mohs' scale.
(3) Texture: Sandy to the touch. Compact and contorted.

(4) Color: Exterior; Light brown (7YR6/4, dry) to black. Interior; Comparable range of colors to the exterior but generally lighter.

Firing: Upright position in a predominately oxidizing atmosphere. Dark cores and fire clouds present.

Surface Treatment: (1) Exterior: Well smoothed; little evidence of the malleated surface present and many sherds show a floated or self-slipped finish.
(2) Interior: Well smoothed; Coil junctures frequently present but clearly distinguishable from the striations produced by scraping.

Decoration: Two of the 1973 sherds of this type were incised with thin, shallow lines on the shoulder (Figure 14, d).

Form: (1) Lip: Rounded, 30.58%; Flattened, 25.00%; Chamfered, 8.33%; Notched, 30.31%; and Punctated, 2.78%.
(2) Rim: Vertical or outflaring.
(3) Body: Rounded (bowls) Straight sided (conical jars), or shouldered (constricted-neck jars).
(4) Base: Conical, sub-conical or rounded.
(5) Appendages: None.

Vessel size: Estimates from rim curvature suggest that mouth diameters were between 15 and 40 cm. Shouldered vessels may have been as much as 50 cm in diameter at the shoulder. Height was estimated at 12–50 cm. Wall thickness was 2.5–10 mm, with a mean of 4.7 mm.

Cane Creek Smoothed (Figure 13)

Method of Manufacture: Same as Cane Creek Plain

Paste: Same as Cane Creek Plain

Firing: Same as Cane Creek Plain

Surface Treatment: (1) Exterior: Smoothed, usually obliterating most but not all of the malleation impressions on the vessel surface. The surface of the vessel seemed to have been quite wet when smoothed.
(2) Interior: Same as Cane Creek Plain.

Form: Same as Cane Creek Plain. Lip forms had the following distribution: Rounded, 31.81%; Flattened, 18.19%; Chamfered, 2.28%; Notched, 47.72%.

Decoration: None

Vessel size: Estimated vessel size was similar to that of Cane Creek Plain.

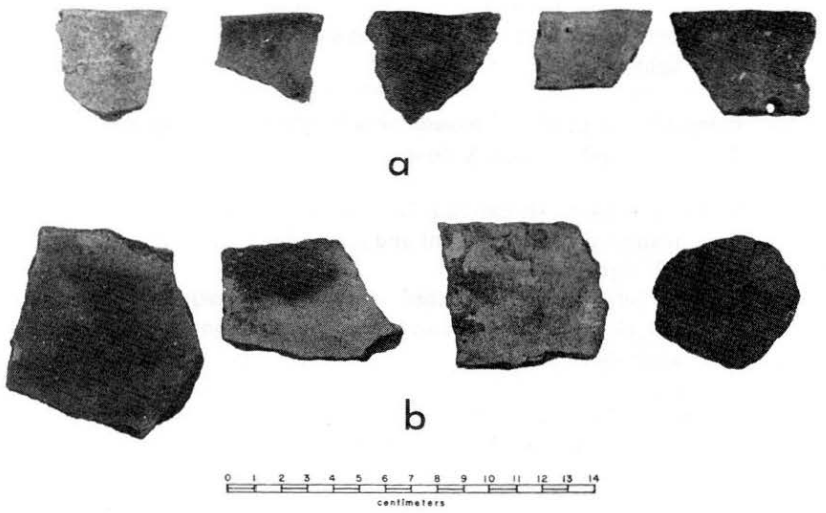

Figure 12.

Cane Creek Series Sherds. a, Plain, Rims; and b, Plain, Body Sherds.

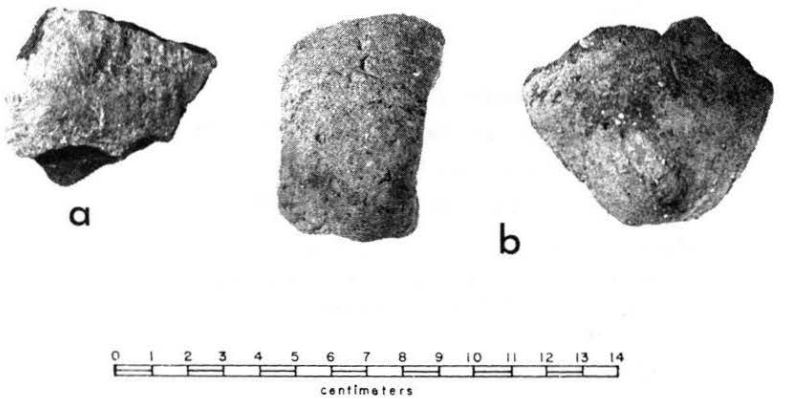

Figure 13.

Cane Creek Series Sherds. a, Incompletely Smoothed Check Stamped Sherd and b, Well Smoothed Sherds.

Cane Creek Brushed (Figure 14, b)

Method of Manufacture: Same as Cane Creek Plain

Paste: Same as Cane Creek Plain

Firing: Same as Cane Creek Plain

Surface Treatment: (1) Exterior: Very indistinct fine shallow brush marks in a haphazzardly arranged manner.
(2) Interior: Like Cane Creek Plain, except brush marks occasionally appear on the interior near the mouth of the vessel.

Decoration: One sherd was incised.

Form: Same as Cane Creek Plain. Lip forms had the following distributions: Rounded, 35.71%; Flattened, 7.14%, Chamfered, 7.14%, Notched, 46.43%; and Punctated, 3.58%.

Vessel Size: Same range of sizes as estimated for Cane Creek Plain.

Cane Creek Cord Marked (Figure 14, e)

Method of Manufacture: Same as Cane Creek Plain

Paste: Same as Cane Creek Plain

Firing: Same as Cane Creek Plain

Surface Treatment: (1) Exterior: Malleated with a cord-wrapped paddle. Cord impressions show both "S" and "Z" twisted cord of both 2 and 3 ply. Cord diameters ranged between 2 and 3 mm. Impressions were often oriented perpendicular to the vessel mouth.
(2) Interior: Same as Cane Creek Plain.

Decoration: None

Form: Same as Cane Creek Plain. Lip forms had the following distribution: Flattened, 33.33%; and Notched, 66.67%.

Vessel size: Same as suggested for Cane Creek Plain

Cane Creek Fabric Impressed

A single fabric-impressed sherd conforming to the ware characteristic of the Cane Creek series was found by Mr. Wilson. The fabric was a wicker woven type with rods about 3 mm in diameter and cords about 1.5 to 2.0 mm in diameter.

Cane Creek Simple Stamped (Figure 14, c)

Method of Manufacture: Same as Cane Creek Plain

Paste: Same as Cane Creek Plain

Firing: Same as Cane Creek Plain

Surface Treatment: (1) Exterior: Parallel impressions of "U" or "V" shaped cross-section suggest that a carved wooden paddle was employed. The long axis of the grooves was generally placed parallel to the orfice of the vessel. Grooves averaged 3 mm wide (range 2–4.5 mm) and lands averaged 2.5 mm wide (ranged 2–3 mm). The application of the surface finish was generally weak, producing very faint impressions.
(2) Interior: Same as Cane Creek Plain

Vessel Form: Identical to Cane Creek Plain containers. No rim or lip sherds were recovered of this type.

Vessel Size: Probably within the range of vessel size described for Cane Creek Plain.

Cane Creek Check Stamped (Figure 14, a)

Method of Manufacture: Same as Cane Creek Plain

Paste: Same as Cane Creek Plain

Firing: Same as Cane Creek Plain

Surface Treatment: (1) Exterior: Malleated with a carved wooden paddle having large (5 x 9 mm) shallow checks. As with the simple-stamped type, impressions of the paddle were faint.
(2) Interior: Same as Cane Creek Plain

Decoration: None

Vessel Form: Same as described for Cane Creek Plain. The six rim sherds of this type had the following lip form distribution: Rounded 33.33%; Notched, 50.00%; and Punctated, 16.67%.

Vessel Size: The size range for vessels of this type seemed to be smaller than other vessel sizes in the series. The largest rim diameter was estimated to be close to 20 cm and the smallest 11 cm. Heights of these vessels was estimated to be within the range of 15 to 20 cm.

Discussion of the Cane Creek Ceramic Series

The distributional pattern of the Cane Creek sherds on the site, as well as the homogeneity of the series, suggests a brief occupation. Fully 94% of the Cane Creek series was classified into three closely related types — Cane Creek Plain, Cane Creek Smoothed, and Cane Creek Brushed. In some instances, the decision to place individual sherds into one or another of these categories was difficult.

Typologically, the Cane Creek series bears a close resemblance to the Connestee series found in southwestern North Carolina and southeastern

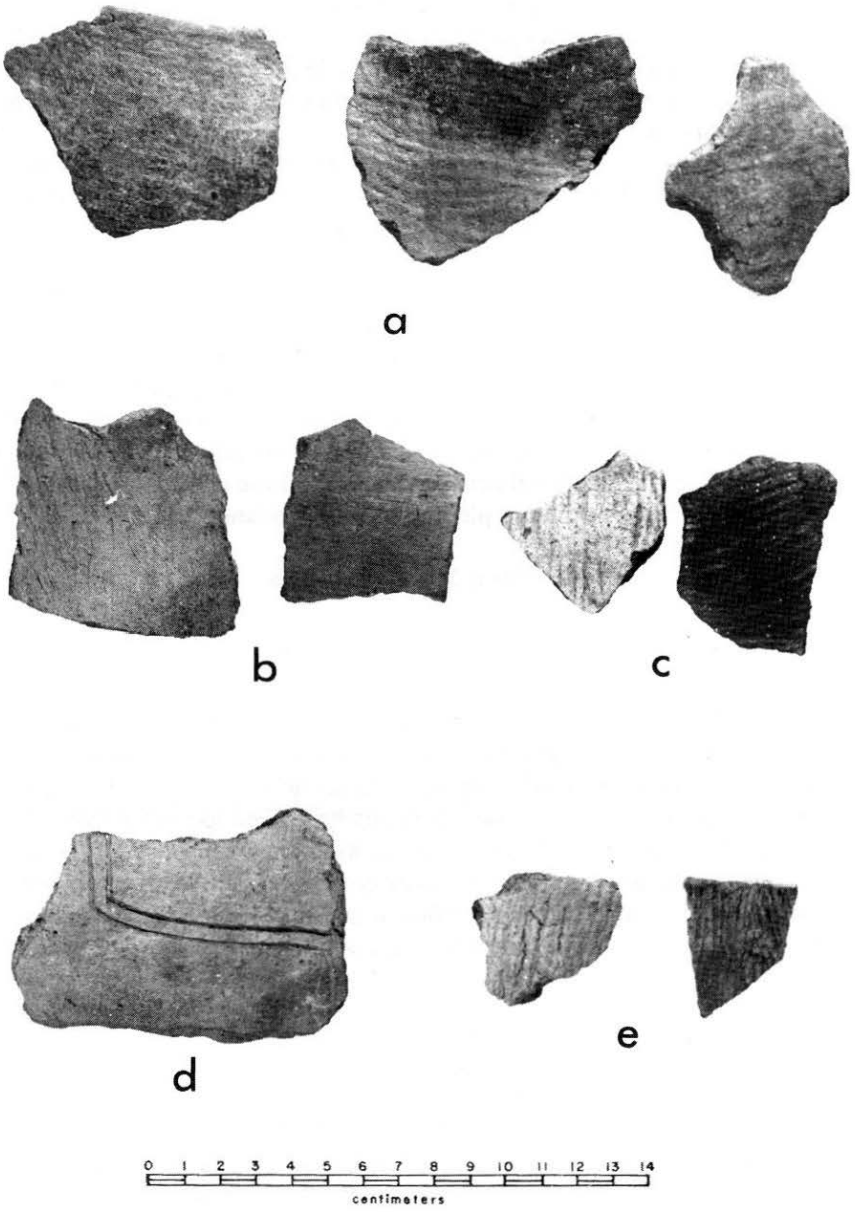

Figure 14.

Cane Creek Series Sherds. a, Check Stamped; b, Brushed; c, Simple Stamped; d, Plain, Incised; and e, Cord Marked.

Tennessee. Connestee series ceramics date A.D. 300 to A.D. 1000 (Keel 1972: 33). The Cane Creek series probably dates to the last half of this period. Until additional data is collected in the area between the Cane Creek site and the Connestee region, however, any proposed relationships between the two series will remain tenuous.

Specifically, the paste characteristics, surface finishes, general vessel forms, and rim and lip forms are almost identical in the two series. However, the small tetrapodal supports found on some Connestee vessels have yet to be observed in the Cane Creek series. This may indicate that the Cane Creek series is later than Connestee, since late Connestee assemblages seem to lack tetrapods. Assemblages of late Connestee pottery also seem to have higher percentages of plain ware than those at the Garden Creek Mound 2 (Keel 1972:288). A general trend in southeastern Tennessee and northern Alabama toward predominately plain ware ceramic assemblages just prior to the appearance of Mississippian cultures has been noted by several workers (Jeff Chapman, personal communication). These observations can be used cautiously to support a placement for the Cane Creek series.

Chipped-Stone Artifacts

A total of 172 chipped-stone artifacts (Table 5) was analyzed. The majority of these artifacts, 126 (79.6%), were found by Mr. Wilson, who allowed the authors to study them in detail. Projectile point types found exclusively by Mr. Wilson included Palmer Corner Notched, Kirk Corner Notched, Morrow Mountain Stemmed, Guilford Lanceolate, Savannah River Stemmed, Bradley Stemmed, pentagonal corner notched, and reworked corner notched. A total of 28 Lamoka points have been recovered from the site, which at the time of the investigation was a surprising discovery since Holland (1970) had not yet reported the type in nearby southwestern Virginia. A number of artifacts classified as projectile points may also have served as knives. Several likely knives are illustrated in the accompaning plates.

Table 5. Distribution of Chipped-Stone Artifacts.

Category	Provenience						Total
	Area A	Area B	Area D	Bur. 2	Surface	Wilson Collection	
Projectile points:							
Palmer Corner Notched						1	1
Kirk Corner Notched						7	7
Morrow Mountain types						8	8
Guilford Lanceolate	1					7	8
Lamoka	2	5		1		20	28
Savannah River Stemmed						15	15
Ottare Stemmed	1	3			3	1	8
Bradley Spike						1	1
Pigeon Side Notched						9	9
Garden Creek Triangular		1				1	2
Connestee Triangular	1					7	8
Haywood Triangular	1					2	3
small corner notched						2	2
small pentagonal corner notched						2	2
small, stemmed						27	27
Total projectile points	6	9		1	3	109	129
Other chipped stone							
knife						3	3
biface					1		1
graver					1		1
end scraper					1	4	5
side scraper						2	2
utilized flake		2	1		1		4
core		2	1		1		4
biface	1	1			3	18	23
Total	7	14	2	1	11	126	172

Projectile Point Descriptions

Palmer Corner Notched (Figure 15, a)

One example of this type (Coe 1964:67–69) was recovered from the site. This point has the typical attributes of the type.

Kirk Corner Notched (Figure 15, b)

Seven specimens that conformed to Coe's (1964:69–70) type description were recovered from the site by Mr. Wilson. All of these early points had well-ground bases.

Morrow Mountain Stemmed types (Figure 15, e & f)

Eight examples of Morrow Mountain Stemmed points (Coe 1964:37–43) have been found at the site. Both Morrow Mountain I and Morrow Mountain II types were present in the Wilson Collection.

Small corner notched points (Figure 15, d)

Two examples of this type were found by Mr. Wilson. The stem shape resembled Coe's (1964:70–71) Kirk Stemmed type. Both specimens had been reworked.

Guilford Lanceolate (Figure 15, g)

Guilford Lanceolate points recovered from the site were of the small variety (Coe 1964:43–44). All were made of quartzite.

Pentagonal corner notched points (Figure 15, c)

Two very nicely made points of chalcedony were recovered from the site by Mr. Wilson. These points were very thin, neatly chipped by the removal of large flat flakes, the edges were retouched by pressure flaking, and the bases and notches were ground smooth.

Savannah River Stemmed (Figures 16 and 17)

Fifteen examples of this type (Coe 1964:44–45) were found by Mr. Wilson. The majority of these points were made of quartzite. Figure 17 illustrates several points that probably are reworked Savannah River-Stemmed specimens. Some of these, e.g., the last specimen on the right of the top row, bottom row first on left, and bottom row third from left of Figure 17 could have been utilized as knives.

Bradley Spike

A single point fitting the description of this type (Kneberg 1956) was found by Mr. Wilson.

Lamoka points (Figure 18)

Twenty-eight Lamoka points were recovered from the site. This type was defined by William A. Ritchie (1961:29–30; 1965: Plate 14, 3–23) and firmly dated between 4333 ± 250 B.C. and 2419 ± 200 B.C. (Ritchie 1965: Fig. 1). Lamoka points from the Cane Creek site had a mean overall length of 37.6 mm (range 31–52), a mean stem width of 12.5 mm (range 9–17 mm), mean stem length of 11.5 mm (range 10–13 mm), mean stem width of 10.5 mm (range 7.5–16 mm), mean shoulder width of 16.5 mm (range 12–23 mm), and mean thickness of 8 mm (range 6–10 mm). Many of these points retained the striking platform, which in some cases showed the patinated cortex of the original flint nodule.

Ottare Stemmed

Eight specimens of this type (Keel 1972:256–258) were recovered from the site. This small stemmed point occurred in a context just preceding the introduction of pottery at the Warren Wilson site (31BN29). It represents a logical continuity from the large Savannah River types to the small Swannanoa Stemmed type. The mean length of the Cane Creek specimens was 54 mm (range 49–57 mm). Shoulder width was 26.3 mm on the average (range 23–31 mm), and the mean thickness was 10.3 mm (range 9–12 mm).

Small, stemmed points (Figure 17)

Twenty-seven small stemmed points were found at the site by Mr. Wilson. There is considerable variety in this group, and they could not be sorted into definitive types. As a group these points ranged in size from 21–43 mm long (mean, 32.6 mm), 9–24 mm wide at the shoulder (mean 19 mm), had stem widths ranging from 9–18 mm (mean, 12.6 mm), and stem lengths from 9–14 mm (mean, 11.3 mm).

Garden Creek Triangular (Figure 19, a)

This large, concave-based, isosceles triangular projectile point was associated with the late Pigeon and early Connestee phases in southwestern North Carolina (Keel 1972:176). This and other triangular projectile points were probably made by the same people who produced the Cane Creek ceramics.

Pigeon Side Notched (Figure 19, b)

Two dozen examples of this medium-sized triangular point with small side notches were recovered from the site by Mr. Wilson. This type of point occurs elsewhere in the Southeast under a variety of names. Data collected from southwestern North Carolina suggest that it can be attributed to the Pigeon and early Connestee phases (Keel 1972:170–172).

Connestee Triangular (Figure 19, c)

As a group, this point is smaller (mean length 32.5 mm) than the previously mentioned triangular forms. It was associated with the Connestee component at Garden Creek Mound 2 near Canton, North Carolina (Keel 1972:176–177).

Haywood Triangular (Figure 19, d)

This is the smallest of the Woodland period triangular projectile points, averaging only 20.4 mm in length. It has an almost equilateral triangular form, with a straight to concave base. The type is also associated with the Connestee phase (Keel 1972:178).

Other Chipped Stone Artifacts (Figure 20)

The remainder of the chipped-stone industry was limited to a preform or cutting implement that was bifacially chipped, a graver, seven scrapers, four utilized flakes, four cores and 23 bifacially chipped projectile point fragments.

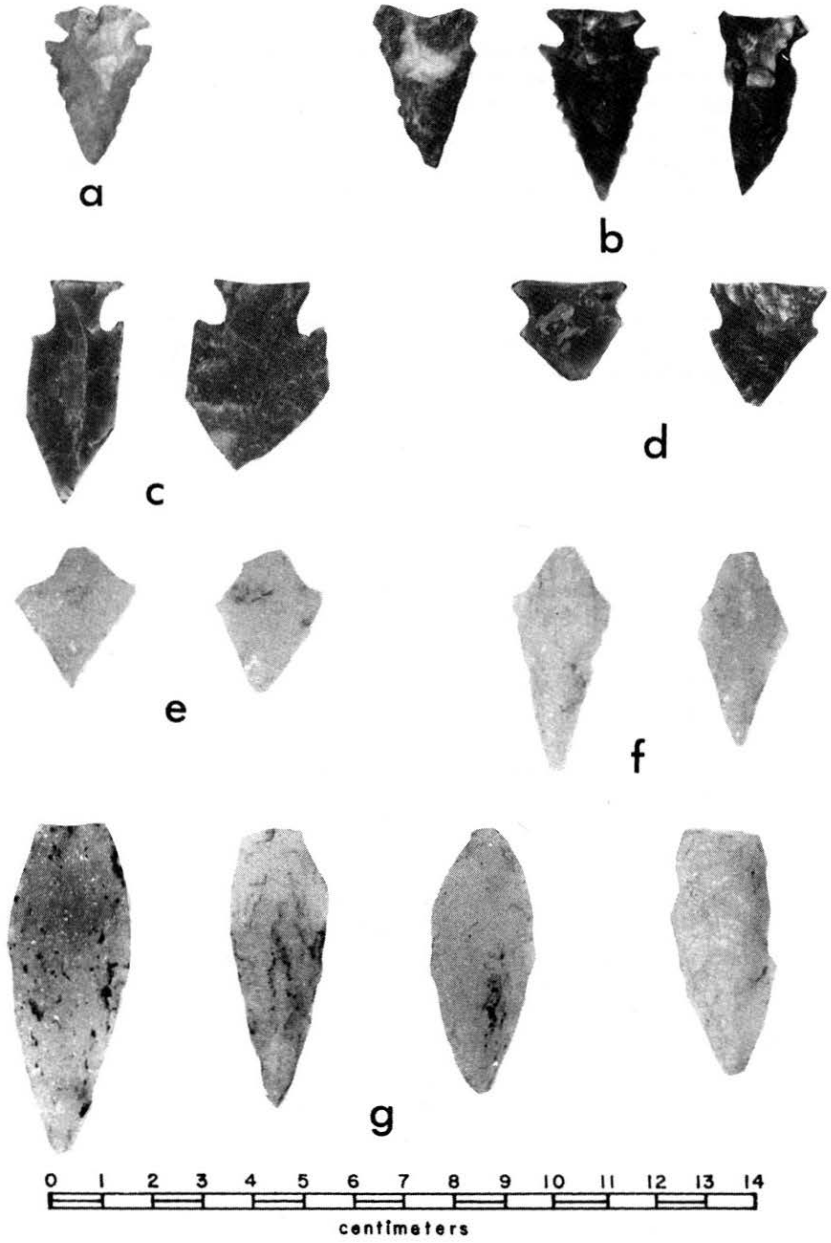

Figure 15.

Projectile Points. a, Palmer Corner Notched; b, Kirk Corner Notched; c, Pentagonal Corner Notched; d, Small Corner Notched; e, Morrow Mountain I Stemmed; f, Morrow Mountain II Stemmed; and g, Guilford Lanceolate.

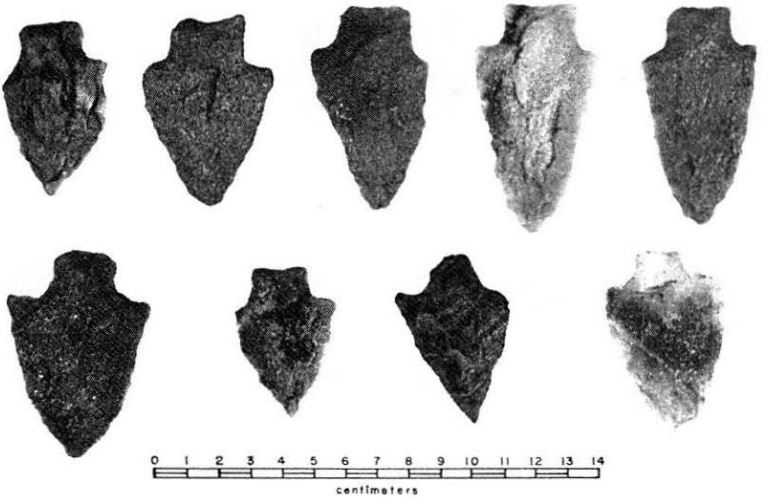

Figure 16.

Savannah River Stemmed Projectile Points.

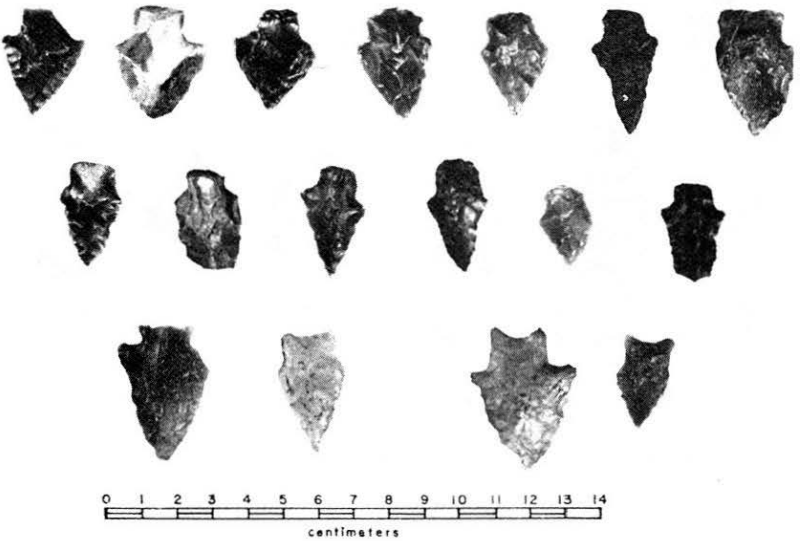

Figure 17.

Small Stemmed Projectile Points.

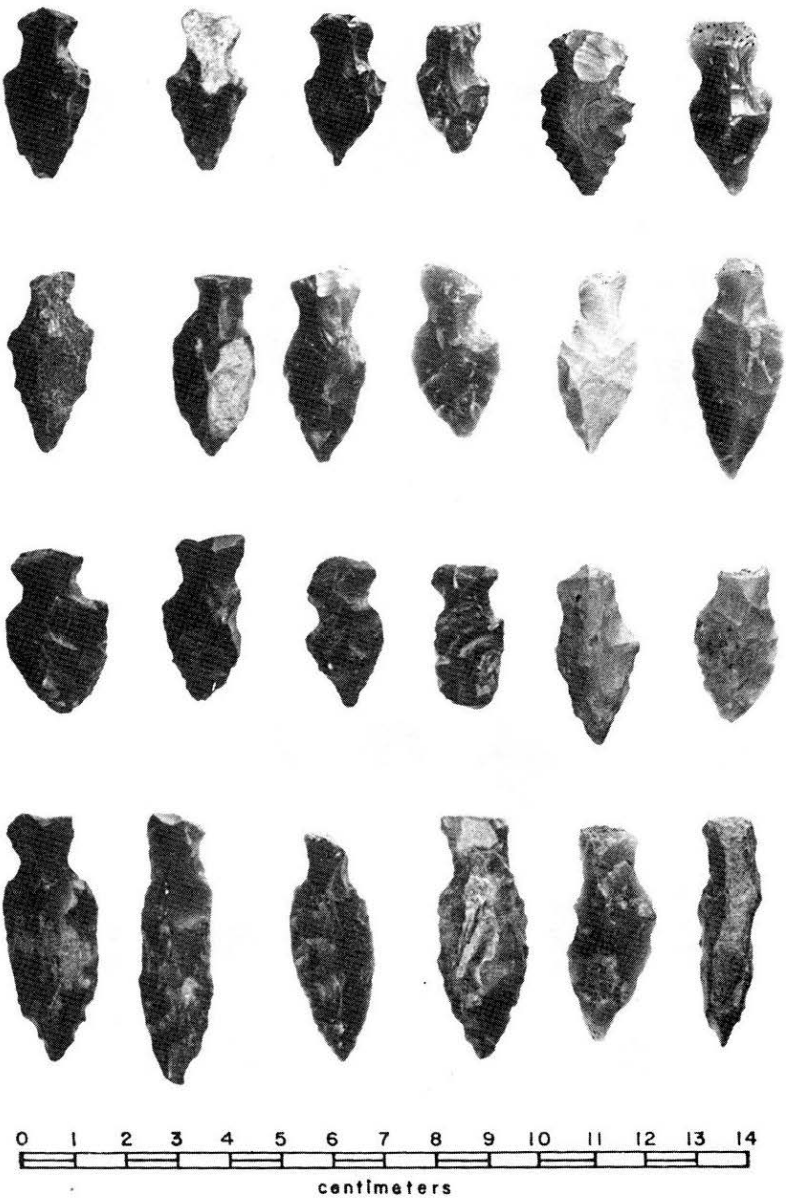

Figure 18.

Lamoka Projectile Points.

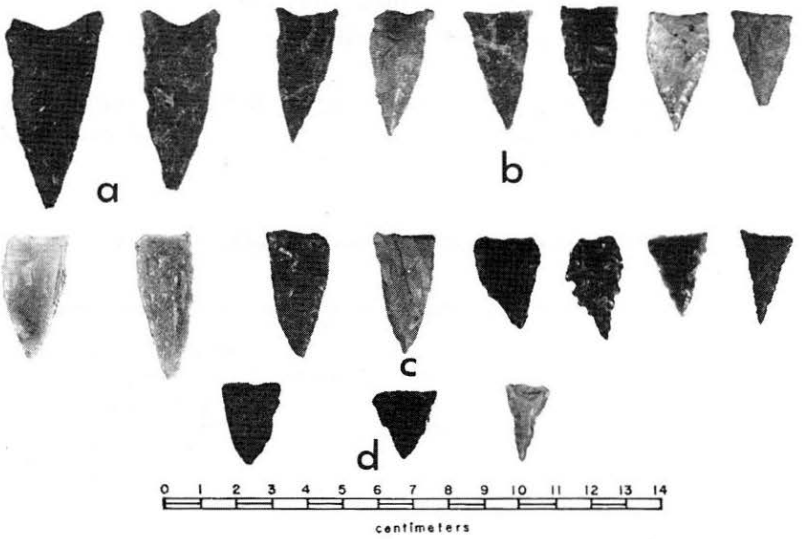

Figure 19.

Projectile Points. a, Garden Creek Triangular; b, Pigeon Side Notched; c, Connestee Triangular; and d, Haywood Triangular.

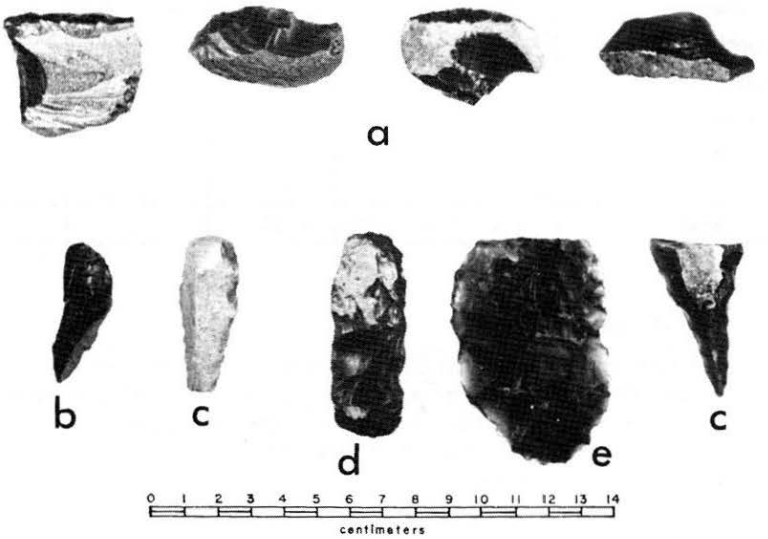

Figure 20.

Miscellaneous Chipped-Stone Artifacts. a, Scrapers; b, Graver; c, Drills; d, Chisel; and e, Preform.

Ground, Polished, and Other Stone Artifacts

The inventory of other categories of stone artifacts found at Cane Creek is presented in Table 6. The most common item of stone, other than projectile points, was polished-stone celts.

Table 6. Ground, Polished, and Other Stone Artifacts.

Category	Provenience				Total
	Area A	Area B	Surface	Wilson Collection	
Celts	1		8	12	21
Bird Stone				1	1
Atlatl Weight				1	1
Pipes				2	2
Gorget				1	1
Discoidal	1			2	3
Mushroom shaped object				1	1
Cone				1	1
Spheroids			3		3
Abrading stone			2	1	3
Cut mica			1		1
Total	2		14	22	38

Celts (Figure 21)

A total of 21 celt and celt fragments was recovered. Whereas two of the complete specimens were well polished, others retained evidence of extensive pecking and little polishing. The largest celt measured 150 mm long, 49 mm wide, and 29 mm thick. The smallest celt was 67 mm long, 40 mm wide, and 12 mm thick.

Pipes (Figure 22, a)

Two fragments of square-bowled pipes of steatite were found by Mr. Wilson. Pipes of this type are generally considered to date to the Middle Woodland period.

Atlatl weight (Figure 22, b)

This object was recovered from one of the graves investigated by Mr. Wilson. It was 56 mm long (wingtip to wingtip), 34 mm across the center, was square in form, and measured 20 mm on a side. The center was perforated longitudinally by a cylindrical hole 12 mm in diameter. At one end of the center, a small hole had been drilled from the face into the central perforation. The weight was made of chlorite schist and was highly polished. Notches had been carved along the edges of the wings. Differential weathering of cuts and scratches suggests that it had been reworked after its original time of manufacture.

Birdstone (Figure 22, c)

Mr. Wilson reported finding this unusual object during one of his many explorations of the site. It was made of chlorite schist and measured 40.5 mm tall with basal dimensions of 26 x 28 mm. A groove that could have facilitated hafting the stone encircled the base. This groove also could have been used for a suspension cord.

Gorget (Figure 22, d)

Mr. Wilson recovered a fragment of a pointed-ended contracting-center gorget (or pendant) made of banded slate. Approximately half of the object was present. It measured 52 mm long and 50 wide.

Discs (Figure 22, e)

At least three stone disc were recovered. Two were found by Mr. Wilson and one, made of hematite was recovered during the present excavations. This object may have been used as a source of pigment.

Mushroom-shaped object (Figure 22, f)

A single item of this form was found by Mr. Wilson. It had a groove around the circumference indicating that it originally may have been pulley-shaped.

Cone (Figure 22, g)

A single conical object was recovered by Mr. Wilson. This object was triangular rather than circular at the base. It also had a groove near the base that could have facilitated the attachment of a cord.

Abrading stones (Figure 23, a)

Three quartzite cobbles were abraded. The largest of these was 58 mm in maximum dimension. A similar sized abrader was represented by a spall.

Spheroids (Figure 23, b)

Three quartzite spheroids were found. All evidenced pecking and abrasion. The largest was 70 mm in diameter and the smallest 46 mm in diameter. These objects may represent the initial stage of manufacture of polished stone balls, which are frequently found in Early Woodland sites.

Cut mica

One piece of mica, which had been cut into a circle, was found near Burial 1. It was 44 mm wide at its largest dimension and 0.5 mm thick. The edge covered an arc of about 60 degrees.

Figure 21.

Polished-Stone Celts.

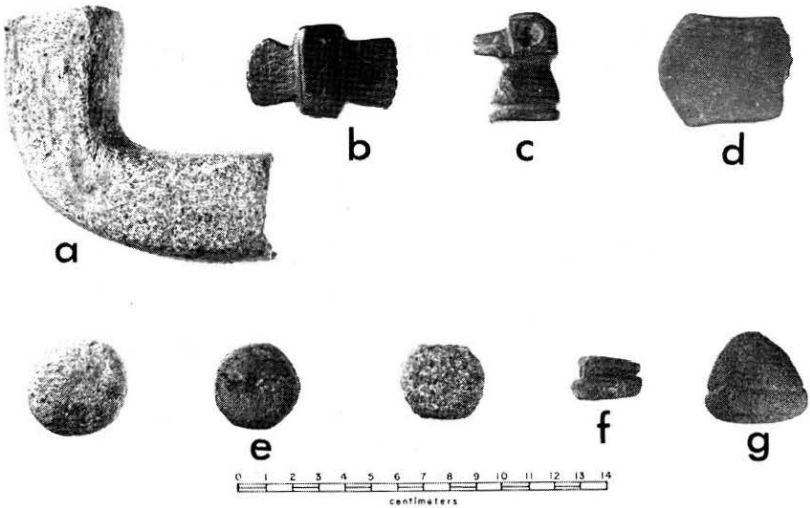

Figure 22.

Ground-Stone Artifacts. a, Pipe; b, Atlatl Weight; c, Bird Stone; d, Gorget or Pendant Fragment; e, Discs; f, Mushroom-Shaped Object; and g, Cone.

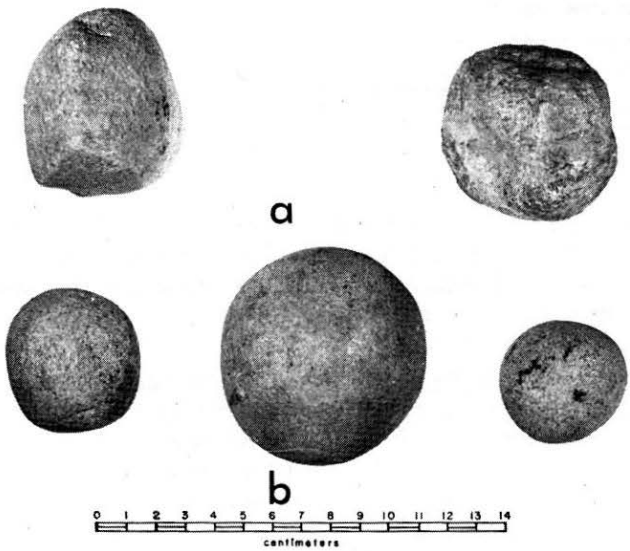

Figure 23.

Pecked-Stone Artifacts. a, Abrading Stones; and b, Spheroids (Hammer Stones).

Bone Artifacts

Items manufactured from bone were common at the site. Table 7 tabulates the items in this category, both in our collection and in the Wilson collection.

Table 7. Distribution of Bone Artifacts.

Category	Provenience				Total
	Area A	Area B	Surface	Wilson Collection	
Awl, cannon bone	1		1	9	11
Awl, splinter	1	1	1	24	27
Projectile point	1	1	1	6	9
Bipointed splinter				3	3
Pin				6	6
Spatulate splinter				3	3
Cut deer mandible		1	1	3	5
Scratcher				1	1
Antler drift				1	1
Split deer Phalange			2		2
Fish vertebra beads				36	36
Total	3	3	6	92	104

Awls (Figure 24)

Two types of awls were present in the collection. The form most frequently encountered (n=27) was made from a splinter of bone (Figure 24, b). These awls measured from 29–130 mm in length. They were well sharpened and had rounded or pointed tips.

The second type (Figure 24) was made from a deer cannon bone by cutting off one end and sharpening the shaft into a fine point (n = 10). One specimen deviates from this form by having a spatulate point. Complete specimens ranged in size from 111 mm to 162 mm long. Some, if not all, of these objects may actually represent the initial stage of projectile point manufacture.

Bone pins (Figure 25, a and b)

Six bone pins have been found at the site. Four pins had expanded heads and two of these were perforated at the head. The perforations were cut

through rather than drilled. The remaining two bone pins were represented by shaft sections. All were well polished and well preserved. The longest specimen was 189 mm, 15 mm wide at the head, and the shaft, oval in cross-section, measured 4 x 5 mm. This pin was not perforated. The only complete perforated specimen was 112 mm long, 12 mm wide at the head and 3.5 mm in diameter at the shaft midpoint. The perforation was 3 mm in diameter.

Spatulate pointed bone splinters (Figure 25, c)

Three specimens were observed in the Wilson collection. The only one that was complete was made from a splinter of deer cannon bone and was similar to the spatulate-ended awl shown in Figure 25 a, except the flattening of the point was more pronounced in the former. The complete specimen was 104 mm long, 13 mm wide, and 8 mm thick. The wider spatulate end was 15 mm across and well polished.

Bipointed bone splinters (Figure 25, d)

Three objects recovered by Mr. Wilson were sharply pointed at both ends. They were 125, 115, and 113 mm long and may have been used as projectile points.

Projectile points (Figure 25, e)

At least 9 deer cannon bones had been made into projectile points. These were manufactured in precisely the same manner as the cannon bone awls described above except the remaining articular end was excised and the cancellous portion reamed out to accept a haft. Three complete specimens pictured in Figure 25 e, measured 152, 123, and 81 mm long.

Cut deer mandibles (Figure 26)

Five examples of cut deer mandibles were recovered from the site. All are identical to the one described from Garden Creek Mound 2 (Keel 1972:203) and shown in Figure 26, lower right. One extremely large specimen (Figure 26, upper right) from the Wilson collection has the ascending ramus cut off and the horizontal ramus excised just posterior to the canines. Like other objects of this class, the interior margin of the horizontal ramus was cut off and ground down until the root canals of the pre-molars and molars were reached. The teeth in two of the mandibles in the Wilson collection (Figure 26, Row 1, center and Row 2, top) have also been ground on the occluding surfaces.

Fish hook blanks (Figure 27, a)

These objects were found in one of the graves unearthed by Mr. Wilson. They were made from the metatarsal bones of a large canid (Paul F. Gleeson, personal communication). The distal end of each metatarsal was cut off and the shaft cut and ground down to form a bipointed blank, possibly for making into a fish hook.

Split deer phalanges (Figure 27, b)

Two phalanges found on the surface of the site had been split from the distal end. The pieces removed had split off before reaching the proximal articular surface. The marrow cavities seemed to have been altered by scraping.

Antler punch or drift (Figure 28)

A section of deer antler 157 mm long showed abrasion and crushing at the distal end. The proximal end had been cut from the rack and reamed out.

Fish vertebra beads (Figure 29, e)

Mr. Wilson found a necklace of at least 36 fish vertebrae in one of the graves he dug.

Shell Artifacts

Artifacts made from fresh water and marine shells were found at the site primarily as grave goods, although some were found on the surface and in the general excavations. The shell artifacts seemed to be restricted to items of personal adornment. Table 8 gives the distribution of these artifacts.

Table 8. — Distribution of Shell Artifacts

Category	Provenience				
	Area A	Burial 2	Burial 3	Wilson Collection	Total
Marginella beads			274	+	274+
Disc beads, marine shell	6	1	38	8	53
Disc beads, fresh water shell				11	11
Pendant				1	1
Small marine shells				3	3
Total	6	1	312	23	342

+ present in Wilson Collection but exact count unknown.

Beads (Figure 29)

Two types of shell beads were recovered. The most numerous type was made from *marginella* shells (Figure 29, d). These were made by grinding off the end of the whorl and using this opening and the natural orifice for stringing or attachment. The beads of this type in Burial 2 were apparently attached to a garment, rather than worn as a necklace.

The second type of bead, a disc-shaped bead made from conch, whelk, or fresh water mussel, was well represented in the collection by at least 57 specimens (Figure 29, a). These beads were manufactured by cutting out sections of the shell wall of mussels or by cutting up sections of the collumn of conch or whelk shell, perforating the blanks and grinding down the edges. Thirty-eight beads, probably a necklace, were found with Burial 3. Disc beads ranged from 8 to 21 mm in diameter. Thickness was variable not only between beads but at points on the same bead. Mr. Wilson reported that several of the burials he had uncovered had necklaces of this type.

Pendant (Figure 29, c)

A small fragment of a shell pendant was found in a grave uncovered by Mr. Wilson. This fragment was 32 mm long, 21 mm wide, and perforated by a single hole 3 mm in diameter. Because of the fragmentary nature of the specimen, the possibility that it was a gorget should not be ruled out.

Small marine shells (Figure 29, b)

Three small conch or whelk shells were found in one of the graves dug by Mr. Wilson. Although fragmentary, they showed no evidence of being altered.

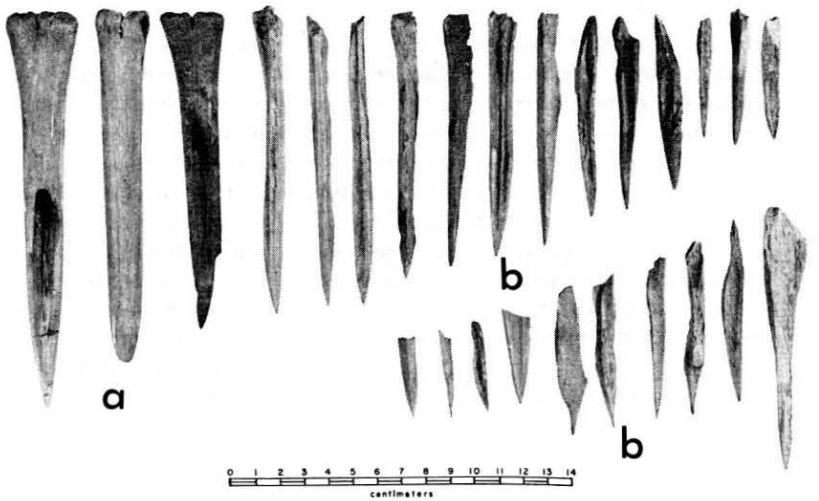

Figure 24.

Bone Artifacts. a, Deer Cannon Bone Awls; and b, Splinter Awls.

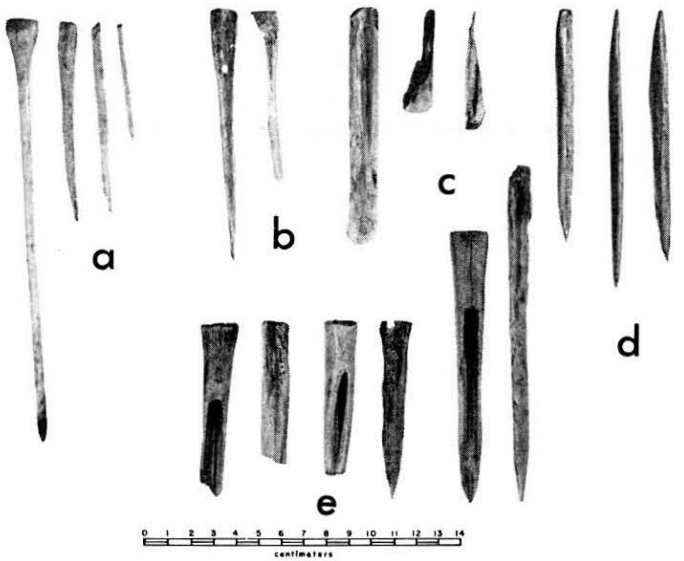

Figure 25.

Bone Artifacts. a, Pins; b, Eyed Pins; c, Spatulate Pointed Bone Splinters; d, Bipointed Splinters; and e, Projectile Points.

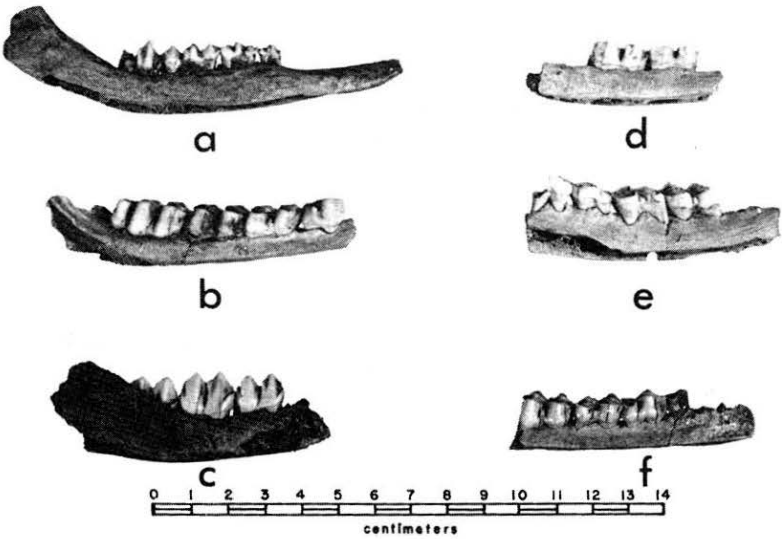

Figure 26.

Bone Artifacts. Cut and Ground Deer Mandibles. a–e, Cane Creek Sites; and f, Garden Creek Mound 2.

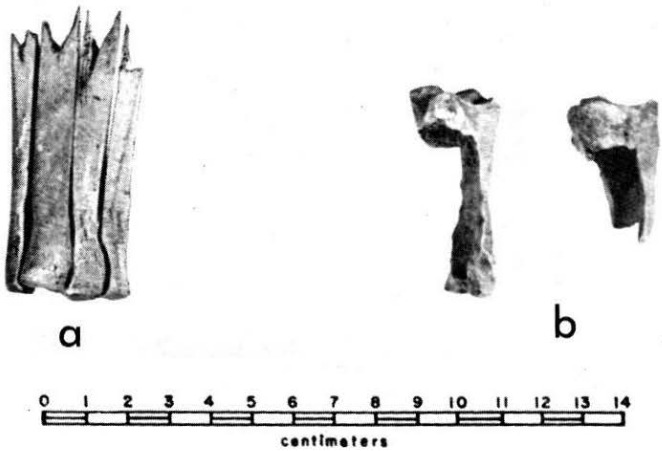

Figure 27.

Bone Artifacts. a, Fish Hook Blanks; and b, Split Deer Phalanges.

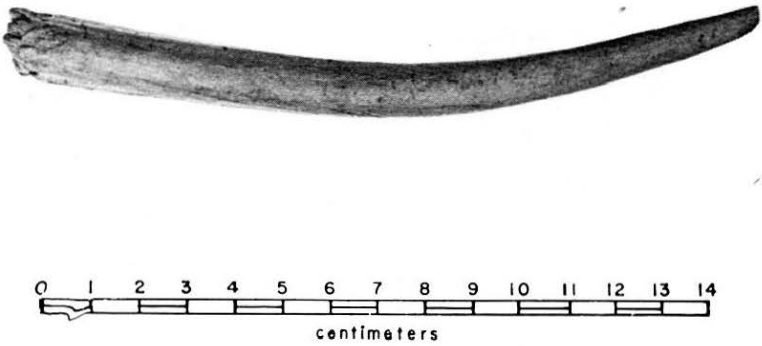

Figure 28.

Antler Punch or Flaker.

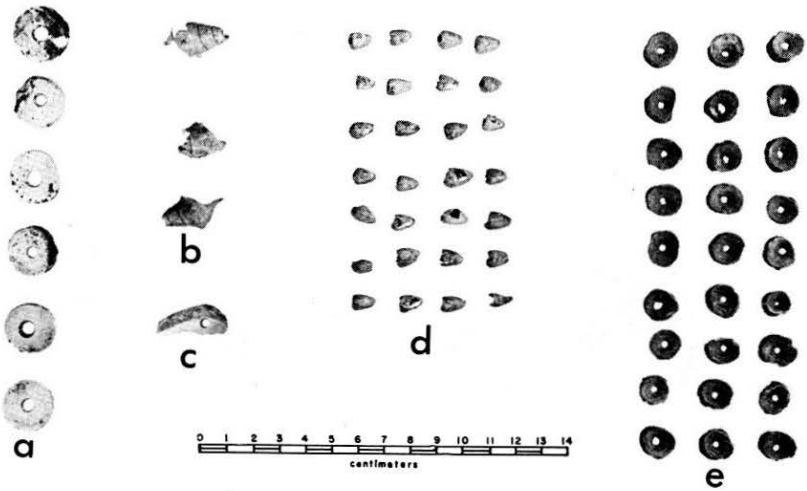

Figure 29.

Shell Artifacts. a, Disc Beads; b, Small Marine Shells; c, Pendant or Gorget Fragment; d, *Marginella* Beads; and e, Fish Vertebra Beads.

Summary

A total of 500 ft² of the Cane Creek site was excavated. Excavation units were placed in two areas showing dark circles of surface soil, and two excavation units were dug in areas of the site characterized by lighter soil. More than 4000 specimens were collected, which combined with artifacts collected by the landowner constitute the corpus of data described in foregoing sections of this report.

The areas chosen for investigation permitted testing the hypothesis that the dark circular areas of the site were the locations of houses. As a measurement of intra-site cultural density, the number of potsherds per ft³ was calculated for each of the areas explored. Area A produced a rating of 4.3, Area B had 4.9, Area C had 3.2, and Area D had 1.4. In spite of the high rating for Area C, it is not considered an activity area because the majority of the sherds were small, eroded, and weathered as if they had been redeposited. The presence of burials and features in Area A and features in Area B tend to substantiate the interpretation that the dark circles were areas of intensive cultural activity, probably houses.

Unfortunately, Mr. Wilson kept no records of his many explorations. Therefore, it was impossible to place any of the specimens in his collection in a specific context. And although a number of specimens in his collection were reported as being "found in burials," this association cannot be substantiated because of the lack of any provenience records. The present explorations showed that flexed burials were present, that items of personal adornment accompanied some individuals, and that at least some of the burials dated to the period after the introduction of Cane Creek ceramics.

Post hole alignments point to the presence of substantial permanent structures in Areas A and B. These structures appeared to be oval in plan with diameters between 12 and 14 ft.

The cultural sequence at the Cane Creek site must be based on specific artifact types recovered from the site because there was no stratigraphic evidence of a long occupational sequence. The earliest diagnostic artifact present in the collection was a Palmer Corner-Notched projectile point, a type that appeared on the Carolina Piedmont about 10,000 years ago. By 9000 years ago the Palmer complex had been replaced by the Kirk complex. The Wilson collection contained seven Kirk Corner-Notched points. Other diagnostic Archaic tradition projectile point present in the collection consisted of Morrow Mountain I, Morrow Mountain II, Guilford, Savannah River, and Ottare. Lamoka points also were present in the collection. Thus, intermittant visits to the site by various Archaic period peoples began about 10,000 years ago and continued to a few centuries before the beginning of the present era. Little can be stated positively about these occupations because so little evidence of them was found.

Evidence for occupation during the Early Woodland period is more difficult to pin down. Swannanoa series ceramics were the only undeniable Early Woodland remains recovered. The small stemmed points, celts, stone balls, birdstone, atlatl weight, and gorget fragments may represent this period. However, these items are not uniquely Early Woodland, as they occur as well during the Late Archaic and Middle Woodland periods. Therefore, it is prudent not to attempt to treat the Early Woodland occupation of the site in any detail.

A Middle Woodland period occupation, at about A.D. 700-1100, was reflected by the presence of the triangular projectile points and Cane Creek pottery. At least three burials, a number of hearths, and perhaps two structures also can be assigned to this component. The Cane Creek culture seems to be closely related to the Connestee phase of western North Carolina and eastern Tennessee. Further comments on this relationship, however, will have to await the study of other Cane Creek sites.

The final occupation of the site was represented by two Burke Complicated-Stamped sherds.

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