AN ANALYSIS OF THE LITHIC ARTIFACT ASSEMBLAGE

FROM THE FORBUSH CREEK SITE (31YD1),

YADKIN COUNTY, NORTH CAROLINA

by

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A thesis submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Bachelor of Arts with Honors in the Department of Anthropology.

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Advisor

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I would like to thank the members of my committee, Dr. Dickens, Dr. Crumley, and Dr. Davis, whose support, help, and advice is greatly appreciated. I would especially like to thank Steve who helped me from the first day of this project to the last. You know I couldn't have done it without your help. I would also like to thank Dr. Dickens and Trawick for teaching me the ropes of photography. You all have made this a very rewarding learning experience. Finally, I would like to say thanks to Carol Anne and Lee for putting up with me and I'm sorry for the neglect.

DEDICATION

To Momma and Daddy, with all my love and appreciation for the opportunity.

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INTRODUCTION

The analysis of the lithic assemblage, including stone tools and debitage, from the Forbush Creek archaeological site, 31Yd1, was undertaken to provide information about the technology and subsistence activities of Late Prehistoric period Indians of the North Carolina Piedmont. This investigation was undertaken in conjunction with the Siouan Project, which is presently being conducted by the Research Laboratories of Anthropology at the University of North Carolina at Chapel Hill, under the direction of Dr. Roy S. Dickens, Jr. The goal of the Siouan Project is to interpret culture change among the Piedmont Indian groups of North Carolina and southern Virginia during the Historic period (Dickens et al. 1985:1). The analysis of the Forbush Creek material, one of only a few detailed investigations of late prehistoric lithic artifacts from the Piedmont area, provides a basis for comparison with the later Historic period assemblages. With such a comparative base, changes in the technology resulting from the introduction of European metal tools can be more clearly identified.

The initial archaeological investigations at the Forbush Creek site in November and December of 1957 salvaged 28 human burials, 2 dog burials, and 42 special features from construction of the westbound lanes of US 421. These investigations indicated that further work should be done before the the eastbound lanes were constructed. Additional excavations at the Forbush Creek site were conducted between March 6 and May 11, 1972 by the Research Laboratories of Anthropology in cooperation with the State Department of Archives and History and the State Highway Commission. The fieldwork salvaged archaeological remains

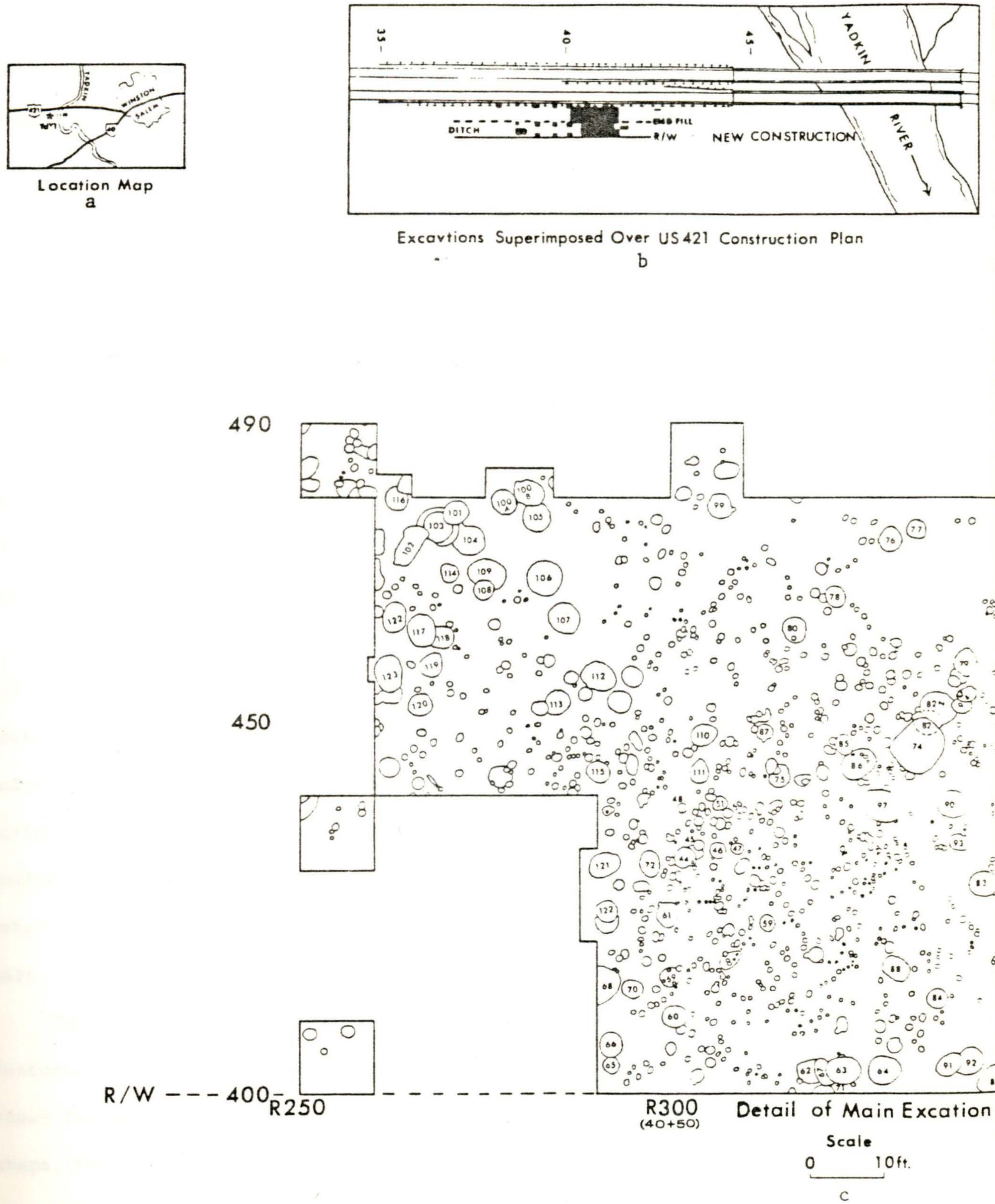
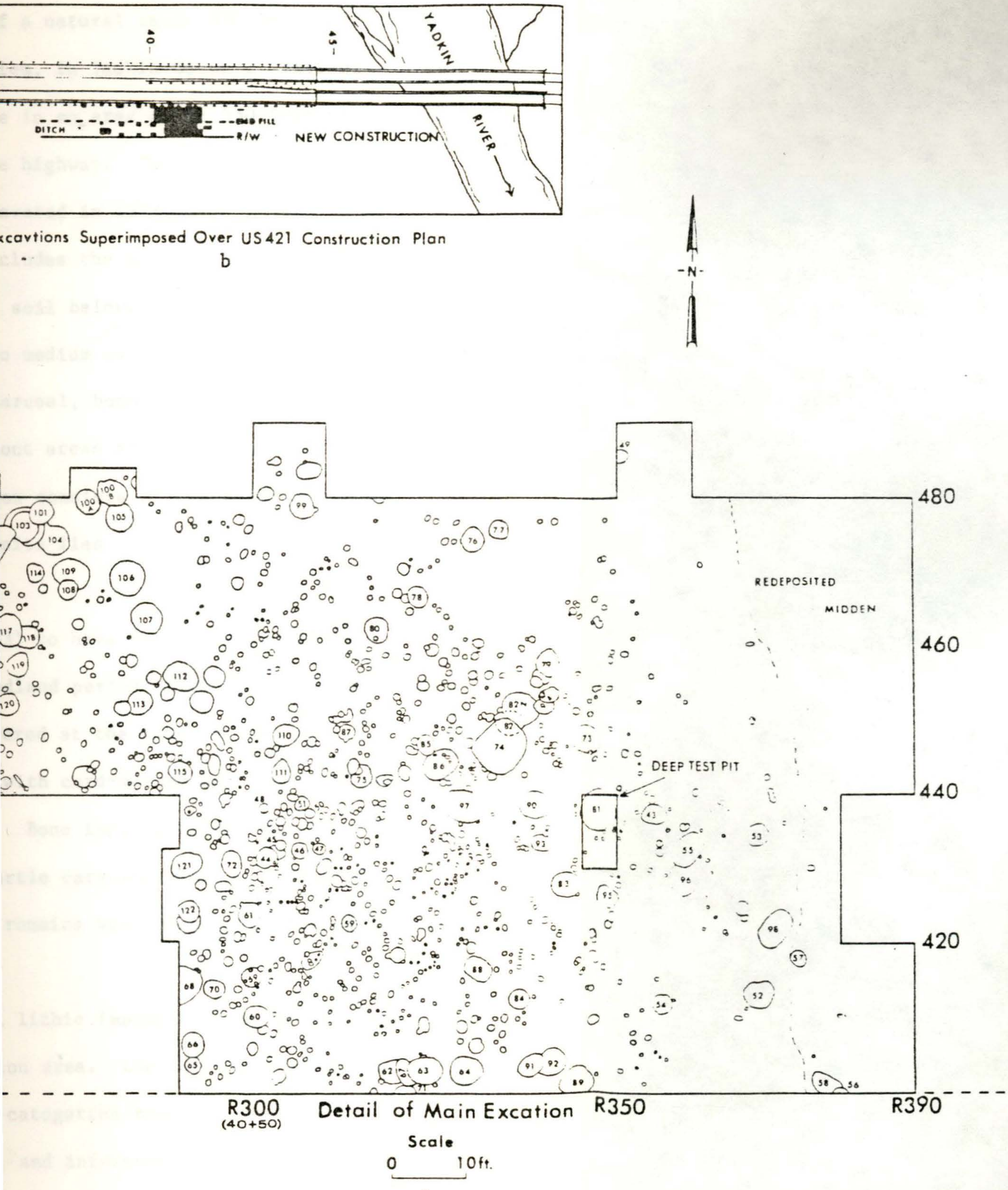


Figure 1. Forbush Creek site. a. General location, b. Area explored, c.



site. a. General location, b. Area explored, c. Detail of main excavation area.

from construction of the eastbound lanes of US 421.

The site lies along the crest of a natural levee 500 feet west of the Yadkin River, west of Winston-Salem, in Yadkin County. Village remains are scattered along the levee in an area about 350 feet wide and about 400 feet north and south of the highway. The area between the right-of-way and the highway was excavated in 1972.

The stratigraphy of the site includes the uppermost stratum of plowed soil and three other types of soil below. Midden built up by the Indian occupation consists of fine to medium sand and cultural debris including potsherds, stones, ash, charcoal, bone, and shell. Some of the midden eroded and filled washed out areas along the eastern margin of the levee. This redeposited midden consists of the same fine sand and cultural debris. Below all deposits lies the subsoil of fine grained sediments.

The site is thought (Coe 1972:13) to have been occupied in the early to middle part of the Late Woodland period, about AD 1200 to 1400. Among the non-lithic artifacts recovered at the site are ceramic potsherds of the Uwharrie tradition with cord-marked and net-impressed surfaces and ceramic pipe fragments. Bone implements at the site include awls, beamers, beads, and turtle carapace bowls. Masses of ocher and faunal and ethnobotanical remains were also recovered at the site.

The analysis was limited to all lithic implements and debris from Features 43-126 of the 1972 excavation area. Coe (1972:9-10) placed these features into four functional categories based on their size, shape, the nature of their contents, and inferences concerning their use. The categories are: storage pits, refuse pits, hearths, and tree stumps. Figure 2 shows examples of hearths, refuse pits, and storage

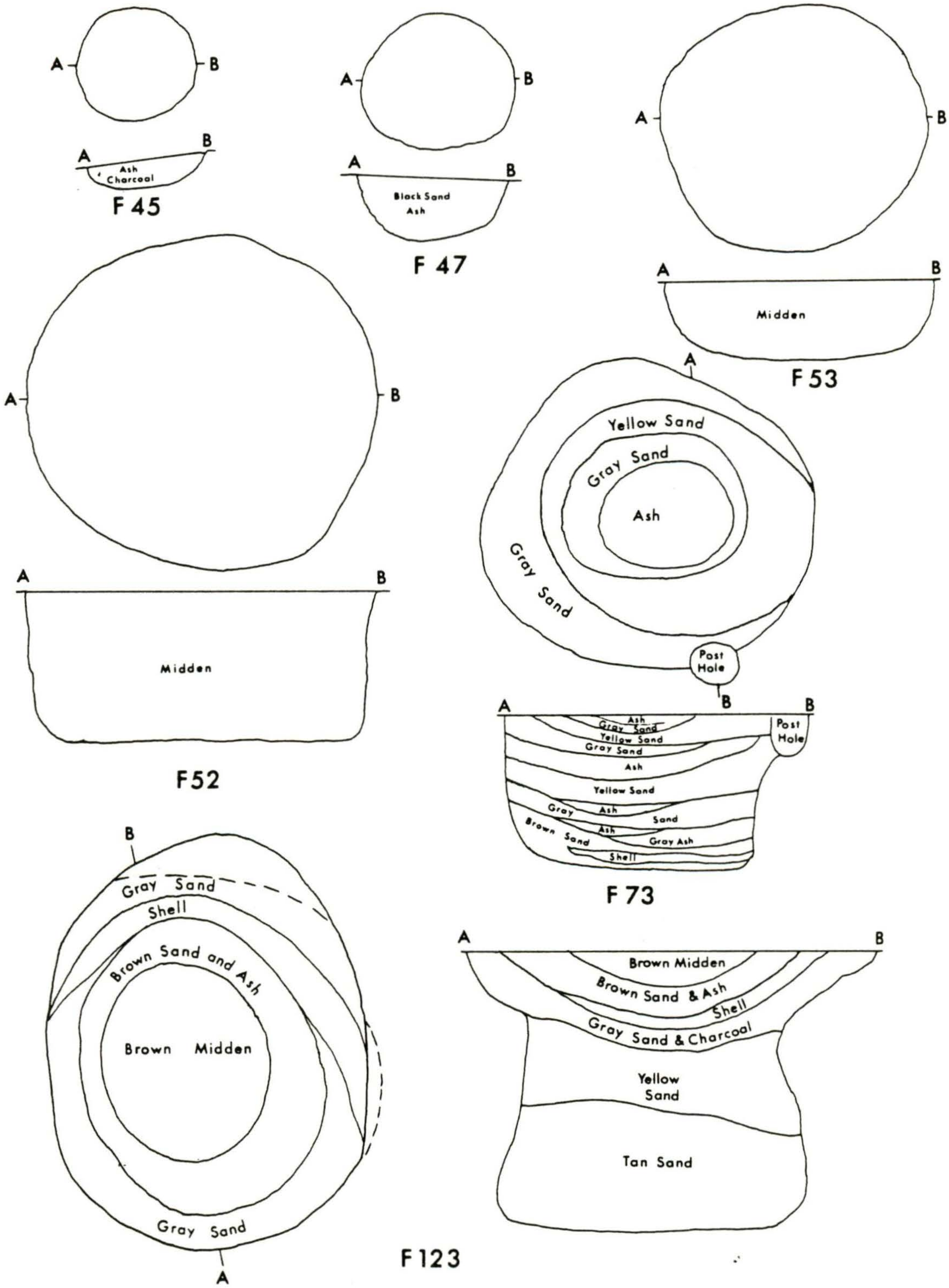


Figure 2. Types of features encountered at the Forbush Creek site. Hearths, F-45 and F-47; Refuse pits, F-52 and F-53; Storage pits, F-73 and F-123.

pits encountered at the Forbush Creek site. The assemblage of analyzed lithic implements and debris consists of 4,722 specimens, including 270 projectile points, 421 stone tools or ornaments, and 4,031 flakes and debris.

The initial objective of this study was to describe the lithic assemblage, using an analysis format developed by R. P. Stephen Davis, Jr. of the Research Laboratories of Anthropology. Within this format, a blank category, working edge category, raw material type, tool condition, and various metric data were determined for each specimen. This format is included as Appendix A. Type categories were determined on the basis of unique combinations of blank and working edge distinctions. Each type category is discussed individually and a statement of inferred function is given for each. The tools have not undergone microwear analysis (see Keeley 1980); all functional designations are based on macroscopic observations of tool form and use wear.

In an effort to illuminate any changes in the technology of the Piedmont Indians during the late Prehistoric and early Historic periods, the Forbush Creek site lithics were compared to those from three sites which were excavated and analyzed during the 1983-1985 Siouan Project research period. V. Ann Tippitt has analyzed the lithic assemblages from one Prehistoric/Protohistoric site and two early Historic sites: the Wall site (31Or11), the Mitchum site (31Ch452), and the Fredricks site (31Or231) respectively. The occupations of these sites span the early 1500s to early 1700s. Figure 3 illustates the locations of these sites within the North Carolina and southern Virginia Piedmont. Comparisons were made between projectile point size and overall site compositions.

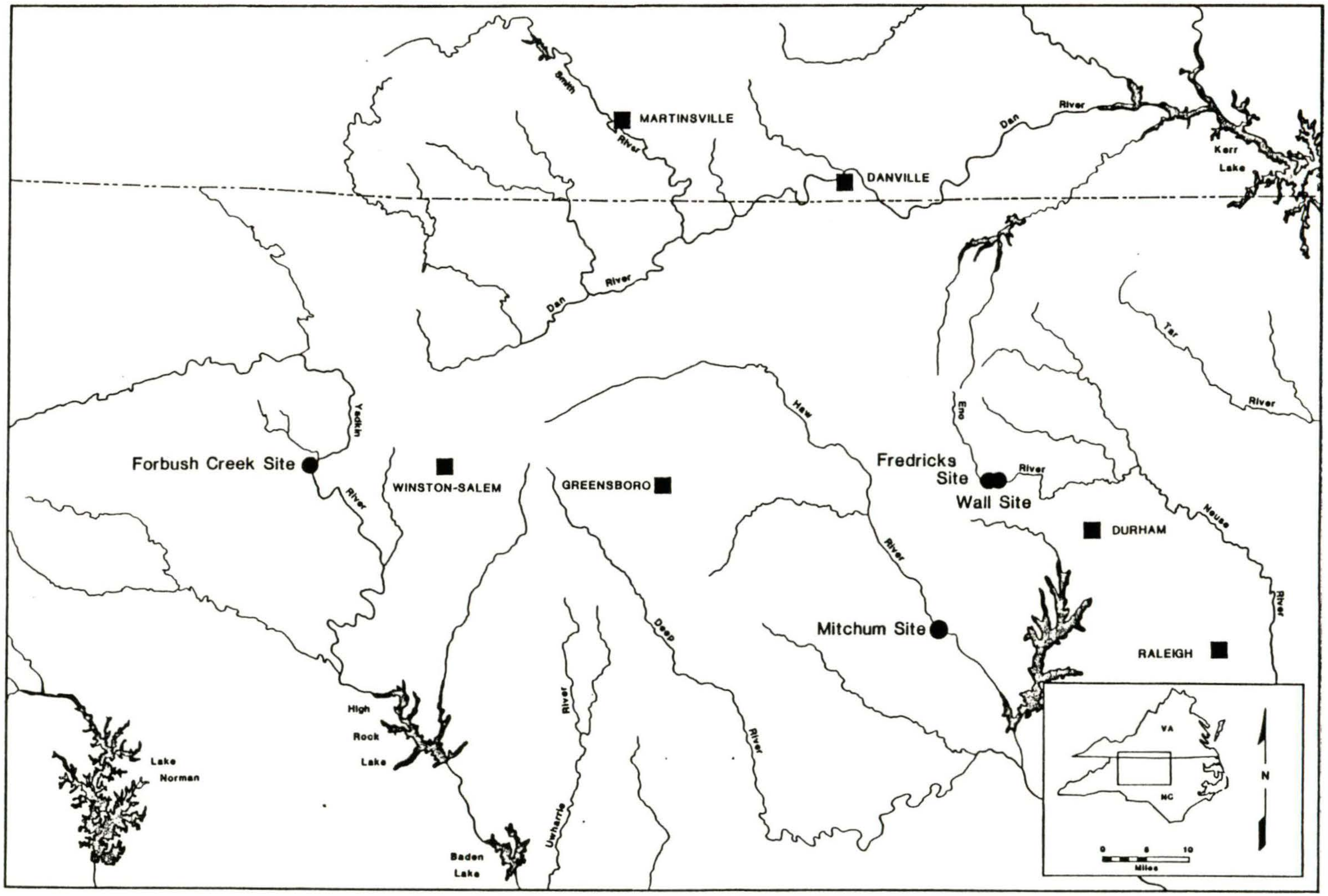


Figure 3. Location of the Forbush Creek site, the Fredricks site, the Mitchum site, and the Wall site.

The specific research questions addressed are:

1. What are the characteristics of a late Prehistoric lithic assemblage from the North Carolina Piedmont, and what impact did the introduction of metal tools have on the composition of lithic assemblages used during later Protohistoric and early Historic periods?
2. What subsistence activities are represented by the tool types found in the Forbush Creek site assemblage, and how do these compare to those of later prehistoric and early historic sites?
3. When data from the Forbush Creek site are combined with those obtained by Tippitt from the other three sites, will it be possible to detect changes in the morphology and construction of triangular projectile points from the late Prehistoric to Historic periods, and, if so, can these changes be related to changes in the subsistence systems in which the lithic assemblages were embedded?

These questions are addressed with the aid of several statistical programs using the SAS data system. The first step in the analysis is to establish the characteristics of the lithic assemblage from the Forbush Creek site.

RAW MATERIAL

Five raw material classes were recognized within the chipped stone tool assemblage: undifferentiated chert, vein quartz, crystal quartz, rhyolite, and other metavolcanic. The most prevalent raw material category found in the debitage was other metavolcanic, comprising 89.25% of the assemblage; rhyolite was the second most common with 4.15%; vein quartz with 4.03%; undifferentiated chert with 1.34%; and crystal quartz with 1.23%. Chert was the only non-local raw material present in the assemblage.

The ground stone tool asssemblage is comprised of seven raw material classes: vein quartz, andesite, diorite, gabbro, schist, slate, and soapstone. Vein quartz accounts for 51% of this assemblage with the river cobbles most often being utilized as fabricators and processing tools such as hammerstones, anvils, and manos. Phaneritic igneous rocks were most often chosen as raw material for the production of tools such as ground celts, abraders, and metates. Andesite (20%) was the most often utilized igneous rock, followed by diorite (3%) and gabbro (3%). Various types of schists (14%), slates (6%), and soapstone (3%) were utilized for the non-utilitarian tools such as gorgets, pendants, beads, and pipes. All these raw materials may be found locally, with the possible exception of soapstone.

DEBITAGE

Debitage consists of all lithic raw material and the residual debris resulting from lithic tool manufacture. The debitage has been subdivided into morphological categories which represent the various stages of lithic reduction and the reduction technique employed. Eleven categories of debitage were recovered at the Forbush Creek site. Figure 4 illustrates several of these and their distinctive characteristics.

Primary Decortication Flakes

Sample Size n=118, %=2.5.

Raw Material: 1 Undifferentiated Chert, 7 Vein Quartz, 1 Crystal Quartz, 7 Rhyolite, 102 Other Metavolcanic.

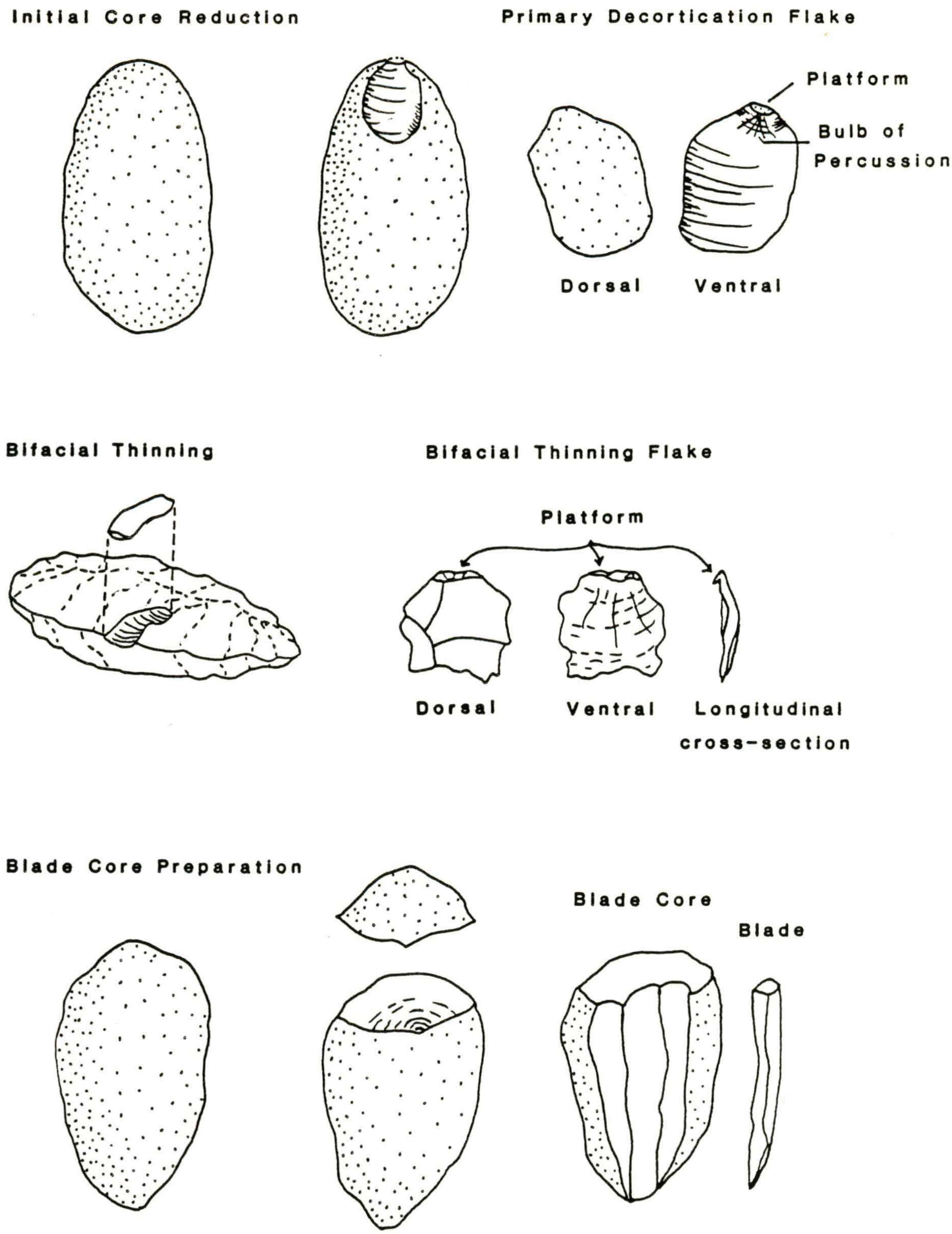


Figure 4. Types of flakes in the Forbush Creek site assemblage (after Crabtree 1972:43 and Muto 1971:Figure 8).

Form: These flakes have a bulb of percussion and have cortex on the striking platform as well as on at least 95% of the dorsal surface.

Comments: Primary decortication flakes are the first flakes removed from a core and are struck from the core by a blow with a percussor (i.e. a hammerstone or antler); such a reduction technique is percussion flaking. Primary decortication flakes represent the initial stage of core or nodule reduction.

Secondary Decortication Flakes

Sample Size: n=1128, %=23.88.

Raw Material: 22 Undifferentiated Chert, 17 Vein Quartz, 2 Crystal Quartz, 44 Rhyolite, 1043 Other Metavolcanic.

Form: Secondary decortication flakes are the same as primary decortication flakes, except that they have cortex on less than 95% of the dorsal surface and none on the striking platform.

Comments: These flakes represent a secondary stage of core or nodule reduction which involves removing the last bits of cortex from the core. Secondary decortication flakes were more often utilized than were primary decortication flakes.

Interior and Bifacial Thinning Flakes

Sample Size: n=2543, %=53.85.

Raw Material: 29 Undifferentiated Chert, 112 Vein Quartz, 37 Crystal Quartz, 105 Rhyolite, 2260 Other Metavolcanic.

Form: The flakes exhibit no cortex but show evidence of previous flake removals on the dorsal surface or show evidence on the striking platform of being removed from a biface.

Comments: Interior and bifacial thinning flakes represent the final stage of lithic reduction, which involves shaping and thinning of stone tools and bifaces. These flakes were detatched using percussion flaking or pressure flaking techniques, in which flakes are removed by applied pressure, rather than by percussion.

Core Rejuvenation Flakes

Sample Size: n=4, %=3.03.

Raw Material: 4 Other Metavolcanic.

Form: These flakes exhibit multiple hinge or step fracture scars on the dorsal surface.

Comments: Certain irregularities or impurities in the composition of stone can cause a flake to terminate prematurely. If a core has such structural impurities, many flakes can terminate in the same spot, rendering the core useless. To restore the core, a core rejuvenation flake must be detatched which removes the portion of the core containing the impurity and the flake termination scars.

Blades

Sample Size: n=144, %=3.03.

Raw Material: 2 Undifferentiated Chert, 2 Vein Quartz, 5 Crystal Quartz, 4 Rhyolite, 131 Other Metavolcanic.

Form: These flakes possess a regularity in shape, parallel sides, a length twice the width, a perpendicular striking platform, and a pronounced bulb of percussion.

Comments: Blades are products of special core preparation as illustrated in Figure 3. The blades present in this assemblage are products of rudimentary blade production and do not exhibit highly distinguished features.

Shatter Fragment

Sample Size: n=89, %=1.88.

Raw Material: 32 Vein Quartz, 1 Crystal Quartz, 8 Rhyolite, 48 Other Metavolcanic.

Utilized/Retouched Flakes

Sample Size: n=19, %=0.40.

Raw Material: 1 Undifferentiated Chert, 1 Vein Quartz, 2 Rhyolite, 15 Other Metavolcanic.

Form: These flakes have retouched edges and subsequent flake scars along the worked edge.

Comments: The edge modification appears to have been caused by extended use or damage. The majority (58%) of these are secondary decortication flakes.

Cores (Figure 6)

Sample Size: n=3, %=0.06.

Raw Material: 1 Crystal Quartz, 2 Other Metavolcanic.

Form: Cores are nuclei from which flakes are removed.

Comments: Three cores were recovered; two were random cores (Figure 6:a-b) with irregular, non-patterned flake removals, and the third was an exhausted quartz blade core (Figure 6:c).

A comparison of flake category sizes within the Forbush Creek site assemblage was made and, not surprisingly, the flakes representing the final stages of lithic reduction (interior and bifacial thinning flakes) tended to be smaller than those representing initial stages of lithic reduction (primary and secondary decortication flakes). In conjunction with the proposed decrease in projectile point size, flakes should become smaller from the Middle Woodland to the Historic period. Table 1 presents the distibution of flakes by size, this information is presented with the caution that all feature fill was dry screened through half-inch mesh screen. Such a recovery method leads to a sample biased toward larger sized flakes and thus reduces the value of the debitage as a comparative sample.

Table 1. Distribution of flakes by size.

	Size											
	<1 cm		1-2 cm		2-4 cm		4-6 cm		>6 cm		Total	
Flake Type	n	%	n	%	n	%	n	%	n	%	n	%
Primary Decortication	2	.05	46	1.05	66	1.50	6	.14	2	.05	122	2.78
Secondary Decortication	29	.66	521	11.87	646	14.72	47	1.07	3	.07	1246	28.38
Interior	150	3.42	1125	25.63	1130	25.74	46	1.05	3	.07	2454	55.90
Bifacial Thinning	16	.36	173	3.94	104	2.37	3	.07	0	.00	296	6.74
Core Rejuvenation	0	.00	0	.00	2	.05	1	.02	1	.02	4	.09
Blade	3	.07	41	.93	105	2.39	8	.18	0	.00	157	3.58
Shatter Fragment	1	.02	22	.50	66	1.50	9	.21	0	.00	98	2.23
Unidentified	0	.00	2	.04	5	.11	2	.04	4	.09	13	.30
Total	201	4.58	1930	43.96	2124	48.38	122	2.78	13	.30	4390	100.00

CHIPPED STONE IMPLEMENTS

Chipped stone implements were reduced by percussion or pressure flake removals. Each specimen has been assigned to specific techno-functional categories. A total of 74 chipped stone implements were recovered.

Bifaces

Sample Size: n=19, %=0.4.

Raw Material: 13 Other Metavolcanic, 4 Vein Quartz, 2 Undifferentiated Chert.

Form: A biface is a blank exhibiting flake removals on both faces by percussion and pressure flaking.

Comments: Eight of these are small fragments of unidentifiable bifaces and the others perhaps represent unfinished or *ad hoc* tools.

Drills (Figure 5)

Sample Size: n=11, %=0.23.

Raw Material: 9 Other Metavolcanic, 2 Rhyolite.

Form: A drill is a tool exhibiting an expanding base and bifacial retouch along the major portion of the implement, forming a parallel-sided, rod-like projection. This projection is the bit of the drill and is usually biconvex or diamond-shaped in cross section.

Comments: One drill has flake removals on the bit only, leaving the unworked striking platform as the base(Figure 5:a). Two others are bit fragments, while the remaining eight have bifacially worked bases. The drill bits appear to have been used in a twisting motion to bore holes in dense material such as leather, wood, bone, antler, and soft stone.

End Scrapers (Figure 5)

Sample Size: n=7, %=0.15.

Raw Material: 5 Other Metavolcanic, 1 Vein Quartz, 1 Crystal Quartz.

Form: End scrapers are flakes with steep, regular retouch resulting in a convex or straight working edge perpendicular to the longitudinal axis of the flake.

Comments: The end scrapers recovered from the Forbush Creek site are not of a formalized type. Five have bifacial flaking on the working end (Figure 5:h-j), one is unifacially worked (Figure 5:k), and one is a reworked stemmed projectile point (Figure 5:l). The steepness and regularity of the working edge suggests that these flakes were used to scrape soft materials such as animal hides.

Gravers (Figure 5)

Sample Size: n=3, %=0.06.

Raw Material: 2 Other Metavolcanic, 1 Crystal Quartz.

Form: A graver is any mass with fine retouch which results in a sharp, triangular projection.

Comments: One has been unifacially retouched on the proximal end of a flake (Figure 5:n), one has been bifacially worked from the distal end of a flake (Figure 5:m), and one is a unifacially retouched projectile point tip (Figure 5:o). The sharp, triangular projections appear to have been used to engrave or score dense material such as wood, bone, and antler.

Perforators (Figure 5)

Sample Size: n=15, %=0.32.

Raw Material: 13 Other Metavolcanic, 2 Rhyolite.

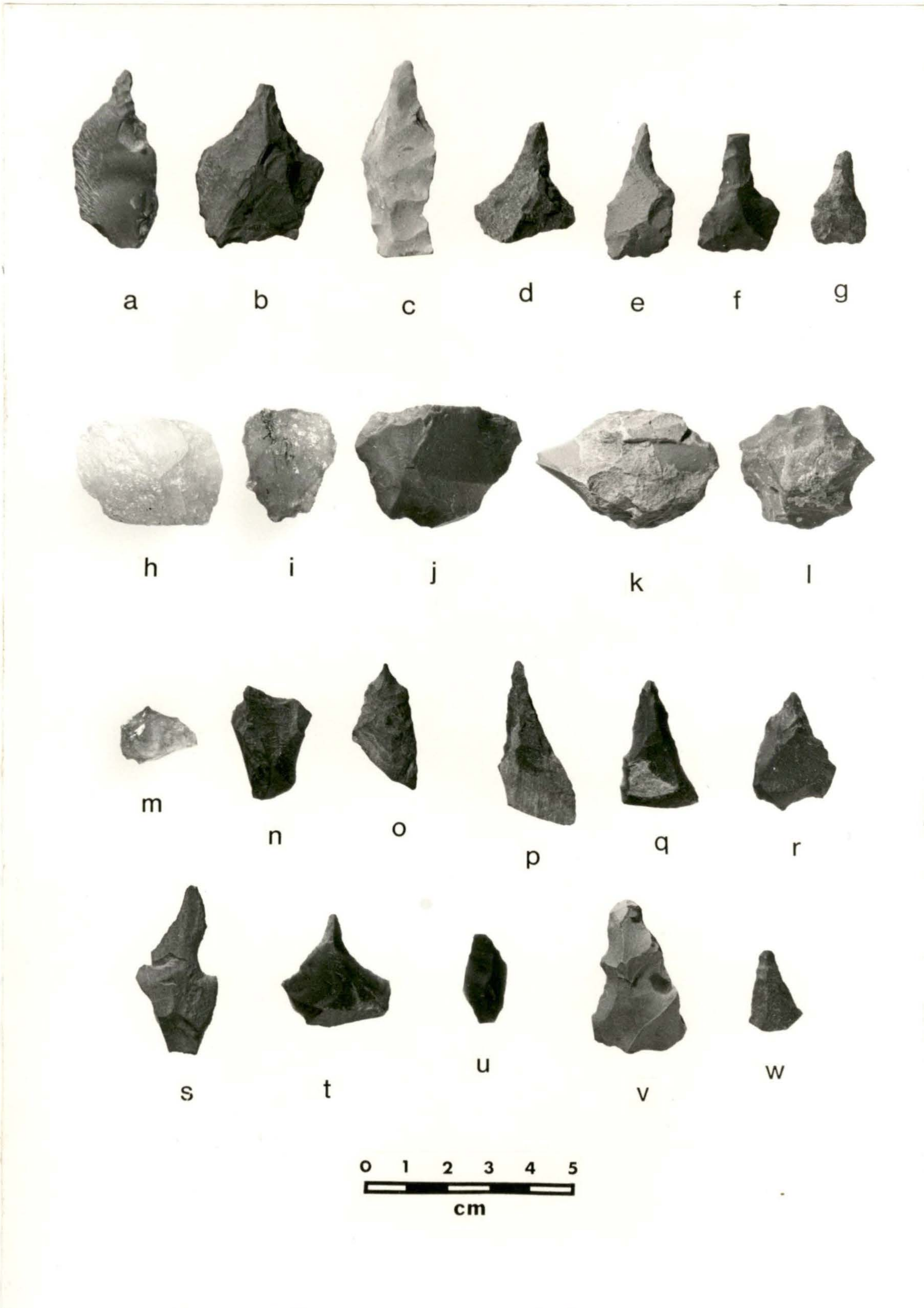


Figure 5. Small chipped stone tools: (a-g) drills;(h-l) end scrapers; (m-o) gravers; and (p-w) perforators.

Form: A perforator is a mass with fine retouch which results in a converging point, usually larger than a graver.

Comments: Four types of perforators where recovered at the Forbush Creek site. Five had bifacial retouch (Figure 5:p-r), five had unifacial retouch (Figure 5:s-t), five had alternate flaking (including one on a blade, shown in Figure 5:u), and two were reworked from bifaces (Figure 5:v-w). The morphology of these tools suggests that they were used to punch holes in less dense material such as leather.

Denticulates (Figure 6)

Sample Size: n=10, %=0.21.

Raw Material: 9 Other Metavolcanic, 1 Rhyolite.

Form: A denticulate is a mass with fine, regularly spaced retouch defining a series of small sharp projections along the implement edge (i.e. a toothed edge).

Comments: Of the denticulates recovered at the Forbush Creek site, seven were on flakes, one was on a blade, one was on a shatter fragment, and one was on a biface. Four of these were exhausted (Figure 6: m-o), exhibiting rounded projections. The toothed edge would have been used in a sawing action to cut less dense material, such as meat and vegetable material.

Pièces Esquillées (Figure 6)

Sample Size: n=1, %=0.02.

Raw Material: 1 Knox Black Chert.

Form: This pièce esquillée is a nodule modified by repeated bipolar percussion blows resulting in crushed working edges with sharp perpendicular corners.

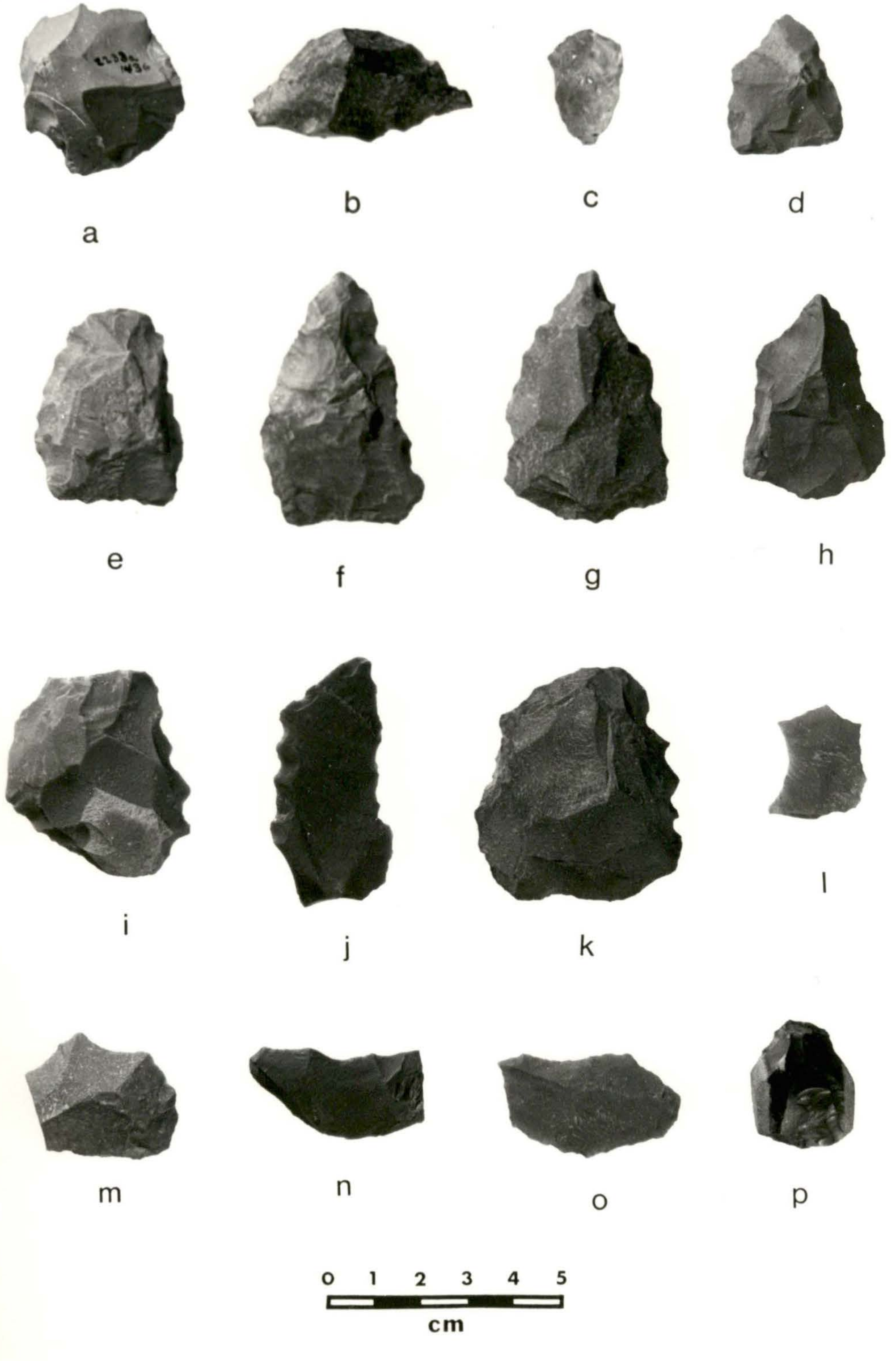


Figure 6. Other small chipped stone implements: (a-c) cores; (d-h) preforms; (i-o) denticulates; and (p) a piece esquillee.

Comments: The crushed working edges of this tool could have been used to scrape or slot dense material such as bone.

Chopper/Scraper (Figure 11)

Sample Size: n=1, %=0.02.

Raw Material: 1 Other Metavolcanic.

Form: Chopper/scrapers exhibit flake removals along the periphery and subsequent crushing and smoothing along the working edge.

Comments: The use wear on the working edge of this tool is indicative of heavy chopping and scraping activities.

Chopper (Figure 11)

Sample Size: n=1, %=0.02.

Raw Material: 1 Vein Quartz.

Form: This chopper is a large river cobble with percussion flake removals along one face, creating an angular chopping edge.

Comments: The bit exhibits crushing and small step fractures indicative of heavy chopping activity. The center of the unworked face of the cobble has a crushed area, indicating that it was also used as an anvil. This is one of the many multi-purpose tools in this assemblage.

Chipped Hoe (Figure 7)

Sample Size: n=5, %=0.11.

Raw Material: 4 Other Metavolcanic, 1 Rhyolite.

Form: These hoes are large flakes and slabs reduced by percussion flaking to produce a bifacial convex working edge perpendicular to the long axis.

Comments: All specimens exhibit damage or wear along the lateral edges, perhaps associated with being lashed onto a handle. One specimen shows a small degree of soil polish indicative of use as a digging implement, but otherwise the working edges show little sign of damage.

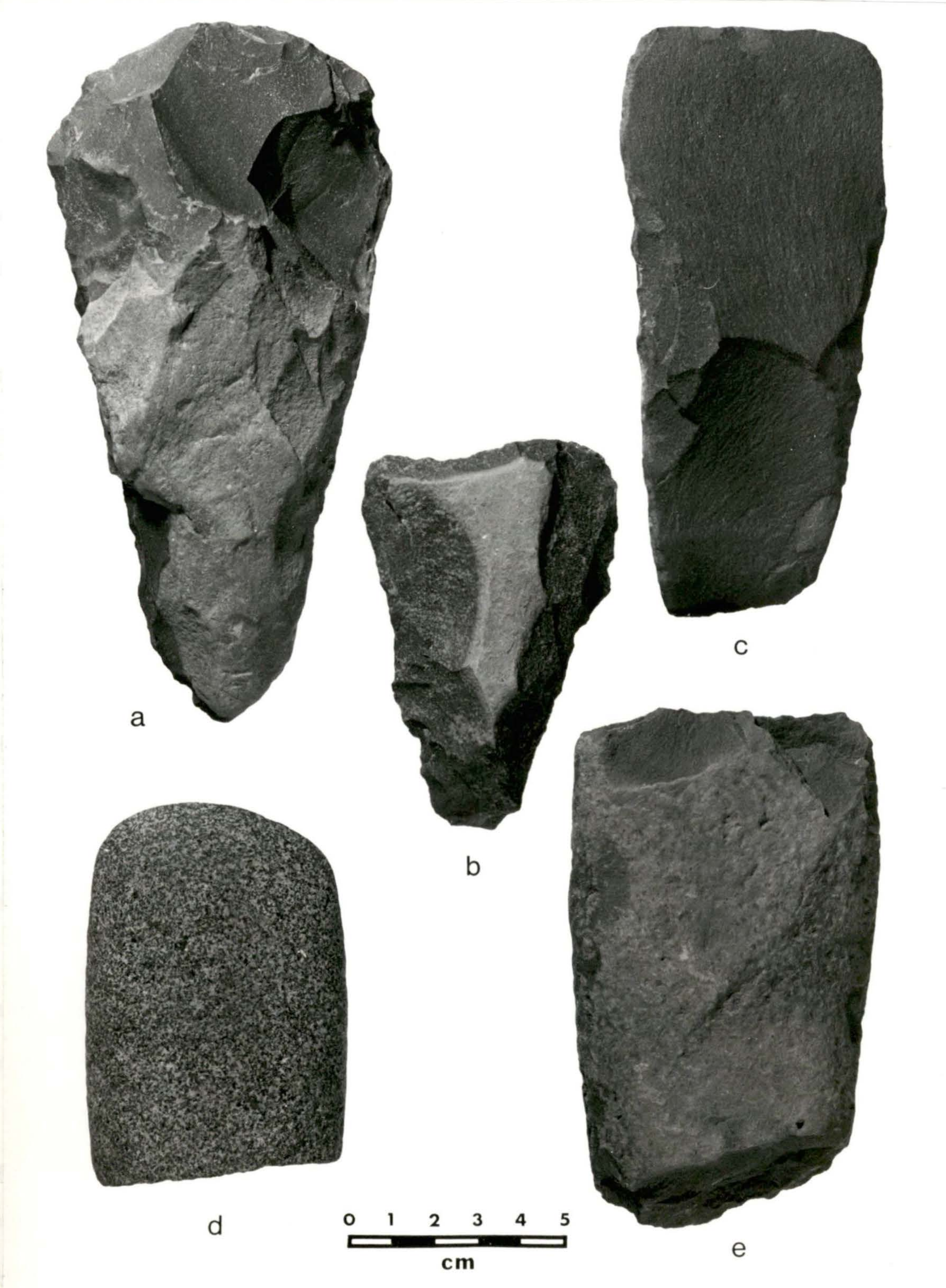


Figure 7. Large tools: (a-c) chipped stone hoes; (d) a ground celt; and (e) a chipped stone axe.

Chipped Axe (Figure 7)

Sample Size: n=1, %=0.02.

Raw Material: 1 Other Metavolcanic.

Form: The axe is a slab which was initially pecked into a rough wedge shape. The polar edges were then bifacially percussion flaked to form a primary and secondary bit.

Comments: The midsection shows no evidence of hafting, but the axe probably was hafted and used to chop dense material such as wood.

CHIPPED STONE PROJECTILE POINTS

A total of 270 projectile point specimens was recovered. Of these, 64 were too framentary to identify. The remaining 206 were assigned to morphological type categories. These projectile points were hafted and used in hunting activities as arrow and spear tips.

Pee Dee Pentagonal (Figure 8)

Sample Size: n=20, %=0.42.

Raw Material: 1 Undifferentiated Chert, 3 Rhyolite, 16 Other Metavolcanic.

Form: Pee Dee Pentagonal projectile points (Coe 1964:49) have five sides and incurvate bases. They generally have straight sides, and a symmetrical shape.

Comments: The shape of these projectile points varies. Nine have parallel sides, eight have expanding sides (Figure 8:o-s), one has convergent sides (Figure 8:j), and two are indeterminate. The specimens with expanding sides are generally larger than the other points. Of those recovered, nine are complete points, two are lateral edge fragments, and nine are basal fragments.

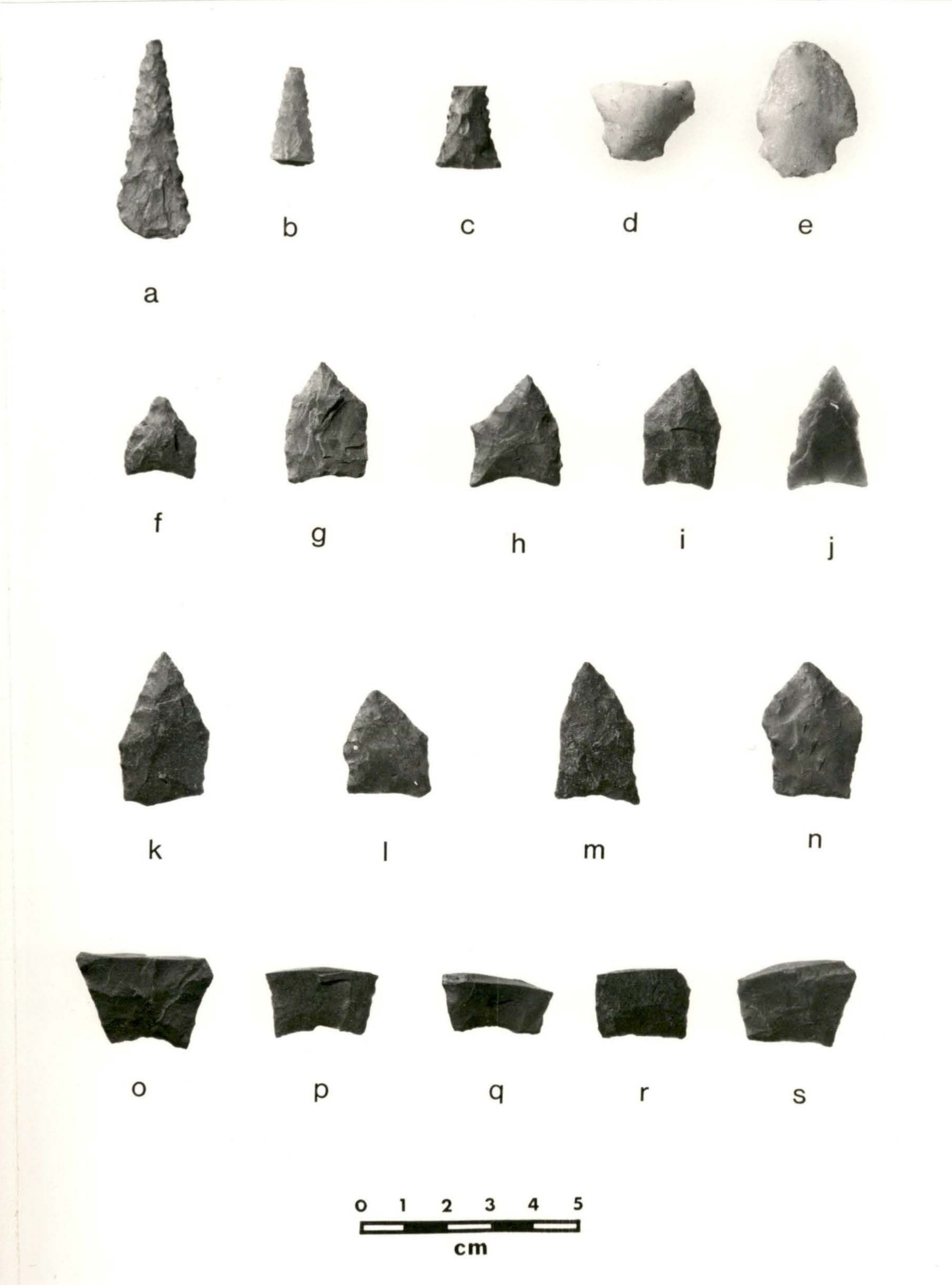


Figure 8. Chipped stone projectile point assemblage: (a-c) serrated projectile point fragments; (d-e) small stemmed projectile points; and (f-s) pentagonal points.

Small Stemmed (Figure 8)

Sample Size: n=2, %=0.04.

Raw Material: 2 Vein Quartz.

Form: These points have stems with rounded bases and excurvate blades, and are thought to be of the Gypsy type (Oliver 1981:188-189) associated with the Late Archaic period.

Comments: One of these specimens is a basal fragment (Figure 8:d) and one is a complete point exhibiting heavy retouch along the lateral edges, indicating it has been resharpened (Figure 8:e). The assemblage contained a third stemmed projectile point, which had been reworked into an end scraper (Figure 5:1) and was included in that type category. These points are thought to be specimens made during the Late Archaic period and recycled by the Late Woodland population. Both the morphology and raw material are uncharacteristic for this assemblage.

Small Triangular (Incurvate Base-Straight Blade) (Figure 9)

Sample Size: n=28, %=0.59.

Raw Material: 1 Rhyolite, 27 Other Metavolcanic.

Comments: Eleven of these are complete points and 17 are basal fragments. Two have serrated edges.

Small Triangular (Straight Base-Incurvate Blade) (Figure 9)

Sample Size: n=8, %= 0.17.

Raw Material: 8 Other Metavolcanic.

Comments: Of the total, one is a complete point, two have broken distal ends, and five are basal fragments.

Small Triangular (Straight Base-Straight Blade) (Figure 9)

Sample Size: n=14, %=0.29.

Raw Material: 14 Other Metavolcanic.

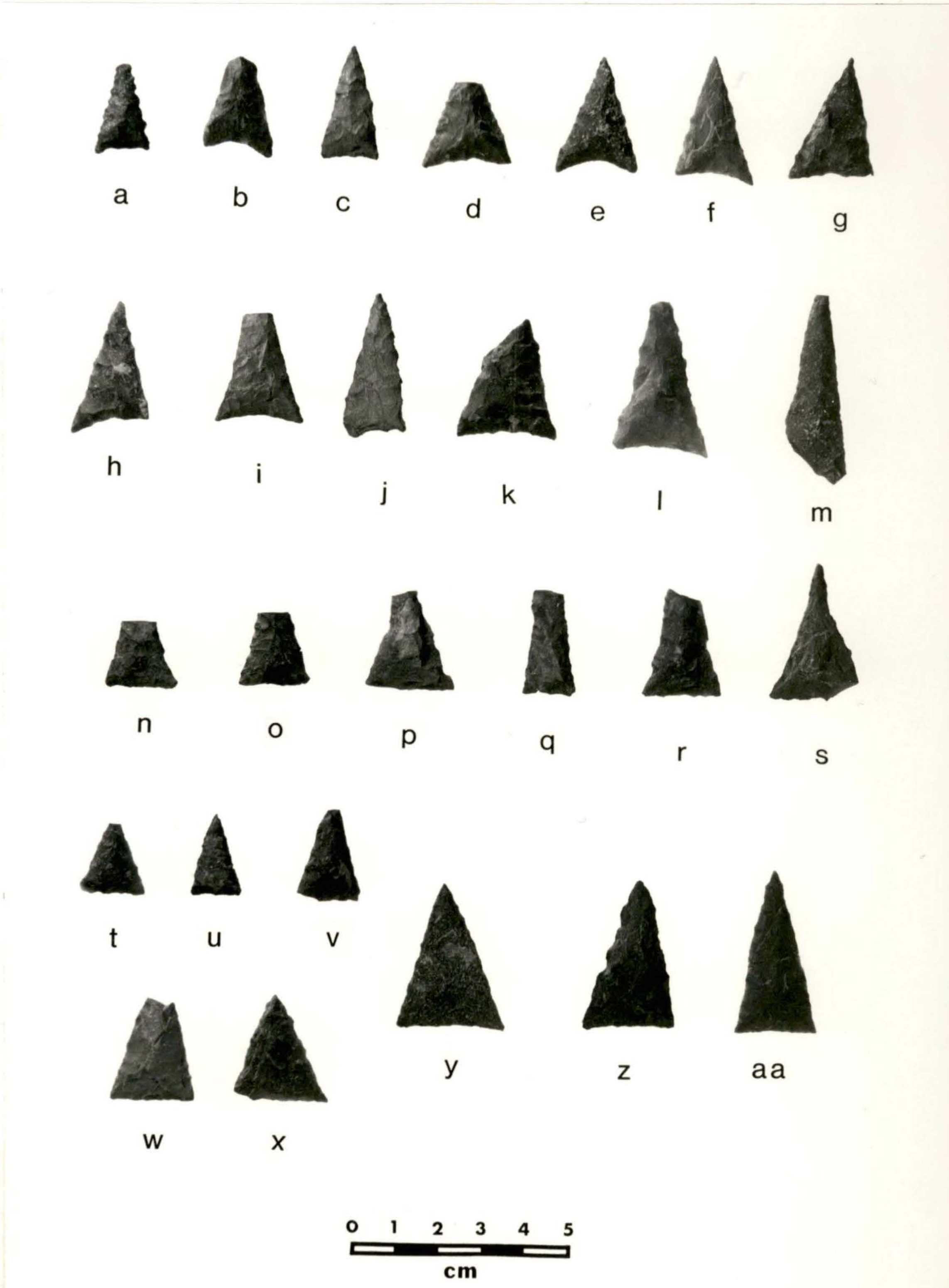


Figure 9. Small triangular projectile point types: (a-m) incurvate base/straight blade; (n-s) straight base/incurvate blade; and (t-aa) straight base/straight blade.

Comments: This point type category includes eight complete points, three points with broken distal ends, and three basal fragments.

Small Triangular (Incurvate Base-Incurvate Blade) (Figure 10)

Sample Size: n=35, %=0.74.

Raw Material: 2 Rhyolite, 33 Other Metavolcanic.

Comments: Of the 35 specimens, 17 are complete points, three have broken tangs, eight have broken distal ends, and seven are basal fragments. One has serrated edges.

Small Triangular (Straight Base-Excurvate Blade) (Figure 10)

Sample Size: n=12, %=0.25.

Raw Material: 1 Knox Black Chert, 1 Rhyolite, 10 Other Metavolcanic.

Comments: Eight specimens in this category are complete points, two have broken distal ends, and two have broken tangs.

Small Triangular (Incurvate Base-Excurvate Blade) (Figure 10)

Sample Size: n=21, %=0.44.

Raw Material: 1 Rhyolite, 20 Other Metavolcanic.

Comments: Of the total, 15 are complete points, one has a broken distal end, two have broken tangs, and three are basal fragments.

Unidentified Triangular

Sample Size: n=66, %=1.40.

Raw Material: 3 Rhyolite, 2 Vein Quartz, 61 Other Metavolcanic.

Form: Included within this category are fragments of unidentifiable triangular points (n=30), flakes with fine retouch along the edges to form irregularly shaped triangular projectile points (n=22), and triangular projectile points which do not have similarly shaped sides (n=14).

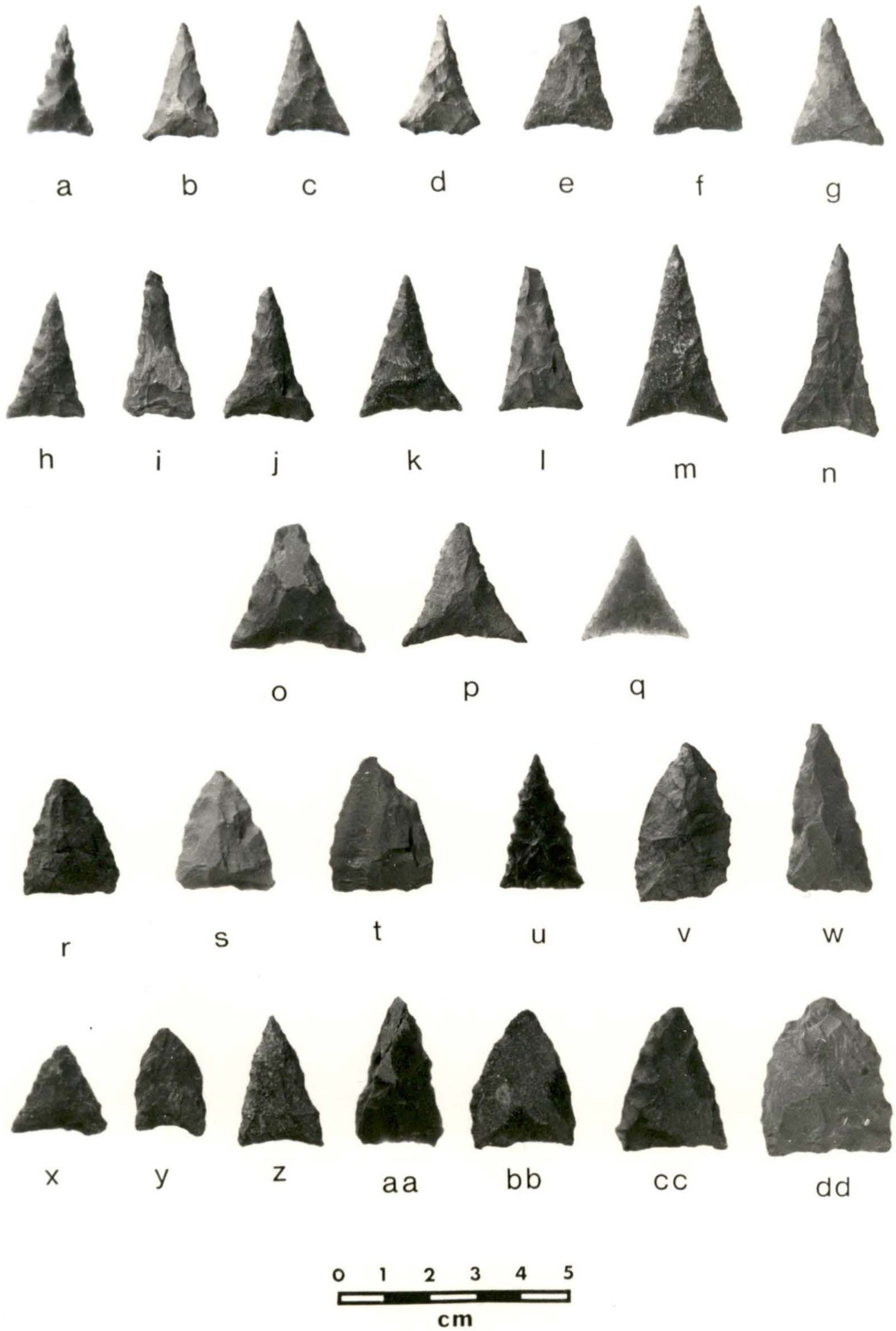


Figure 10. Small triangular projectile point types: (a-q) incurvate base/incurvate blade; (r-w) straight base/excurvate blade and (x-dd) incurvate base/excurvate blade.

Projectile Point Fragment (Serrated) (Figure 8)

Sample Size: n=3, %=0.06.

Raw Material: 3 Other Metavolcanic.

Form: This type category includes fragments of unidentifiable projectile points which have serrated edges.

Comments: Of the total, two are distal end fragments and one is a basal fragment.

Unidentified Projectile Point Fragments

Sample Size: n=61, %=1.29.

Raw Material: 3 Rhyolite, 58 Metavolcanic.

Comments: Of the total, forty-four are distal end fragments, four are lateral edge fragments, nine are basal fragments, and four are unidentifiable fragments.

Preforms (Figure 6)

Sample Size: n=7, %=0.15.

Raw Material: 1 Undifferentiated Chert, 6 Other Metavolcanic.

Form: Preforms are masses with pressure or percussion flake scars on both faces, forming roughly triangular projectile point blanks.

Comments: These preforms represent an unfinished stage of the triangular projectile points. They are larger, thicker, and exhibit less regular edges than the finished triangular projectile points in the assemblage.

GROUND STONE IMPLEMENTS

Ground Stone Implements have been reduced by abrasion of the surface either through use as a fabricator or through shaping by a grinding process. A total of 35 ground stone specimens was recovered of these, five were multi-purpose implements.

Ground Celt Fragments (Figure 7)

Sample Size: n=2, %=0.04.

Raw Material: 1 Diorite, 1 Andesite.

Form: A ground stone celt is an implement with parallel sides and a biconvex working edge, which has been manufactured through various combinations of percussion flaking, pecking, and grinding.

Comments: Linear striations running perpendicular to the bit edge are visible on the diorite celt fragment (Figure 7:d), and were presumably caused by heavy chopping of dense material such as wood. The bit of the andesite fragment is broken, as if through contact with a very hard surface, and the broken edge has been damaged in a manner indicating subsequent use.

Abrader

Sample Size: n=1, %=0.02.

Raw Material: 1 Gabbro.

Form: This specimen is a slab with a ground surface resulting from the abrasion of ground stone or bone tools and has scattered striations from the abrasion of chipped stone tool edges.

Comments: Tool edges were often ground during the reduction sequence to produce a stonger, larger striking platform. This specimen does not appear to have been used for an extended period of time, as the utilized surfaces do not exhibit deep striations.

Metate (Figure 12)

Sample Size: n=2, %=0.04.

Raw Material: 2 Andesite.

Form: Metates are masses that possess a worn concave surface resulting from the processing of plant and animal foods.

Comments: Both of these are fragmentary and do not show signs of long term use.

Mano/Hammerstone

Sample Size: n=1, %=0.02.

Raw Material: 1 Andesite.

Form: This specimen is a squared cobble with two surfaces worn down by gross abrasion and four surfaces which exhibit battered edges from use as a percussor.

Comments: The worn surfaces suggest that this implement was used as a grinding stone in food processing and a percussor in flint knapping.

Anvil/Hammerstone/Mano (Figure 11)

Sample Size: n=4, %=0.08.

Raw Material: 3 Vein Quartz, 1 Andesite.

Form: This implement category is defined as any cobble that has one or more depressed, crushed areas, one or more worn surfaces from gross abrasion, and evidence of battering along the edges.

Comments: These specimens appear to have been used as anvils for nut cracking, as percussors, and as grinding stones for food processing.

Hammerstone (Figure 11)

Sample Size: n=14, %=0.3.

Raw Material: 13 Vein Quartz, 1 Andesite.

Form: These cobbles exhibit battered edges from use as a percussor during lithic reduction.

Comments: The battered areas on these cobbles range in size from very small, isolated spots suggesting limited use, to larger zones (up to 6 cm^2 in area) suggesting extended use.

Pitted Cobble (Figure 12)

Sample Size: n=2, %=0.04.

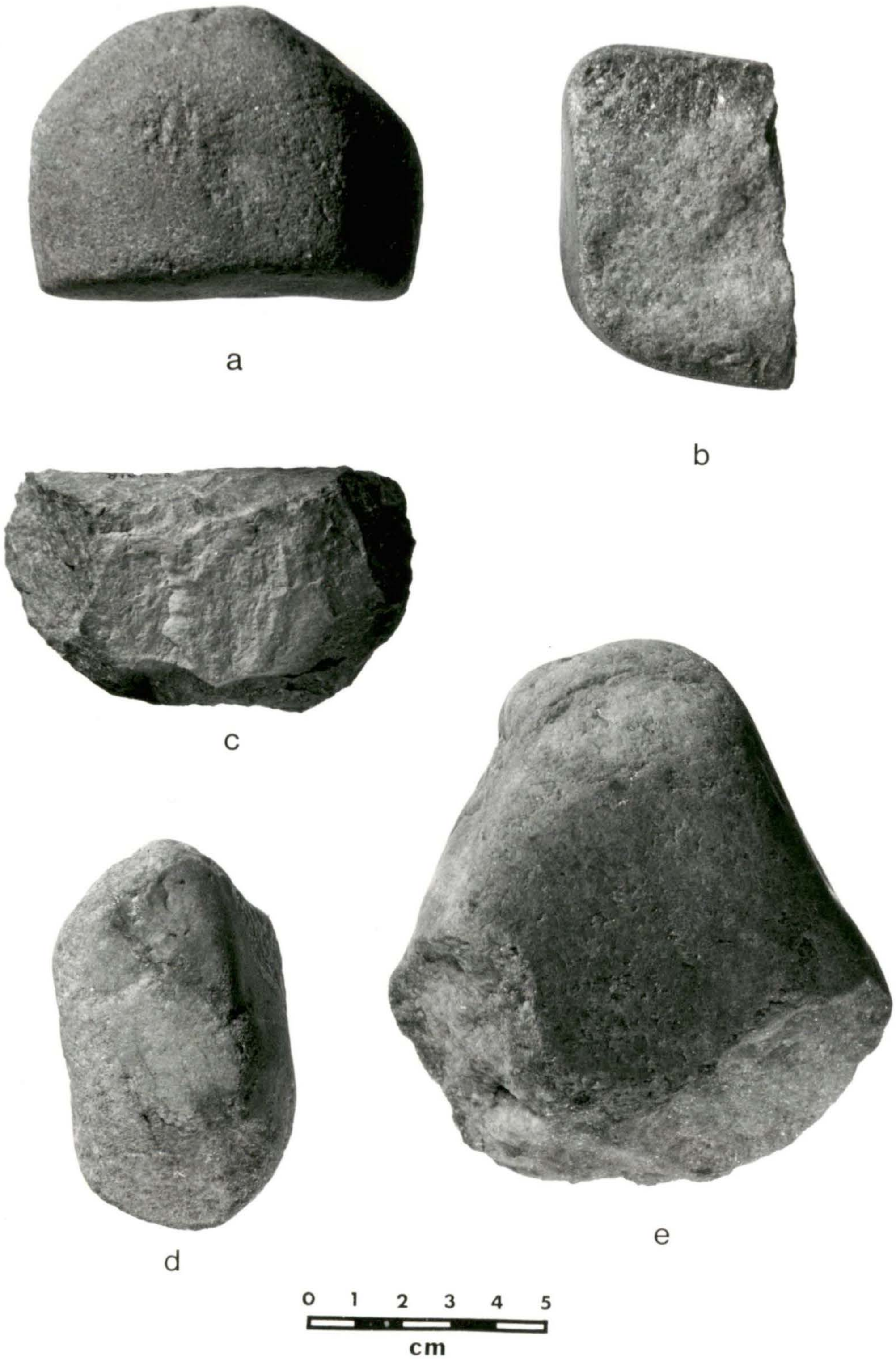


Figure 11. Large cobble tools: (a-b) anvil/mano/hammerstones; (c) a chopper/scraper; (d) hammerstones; and (e) a chopper/anvil.

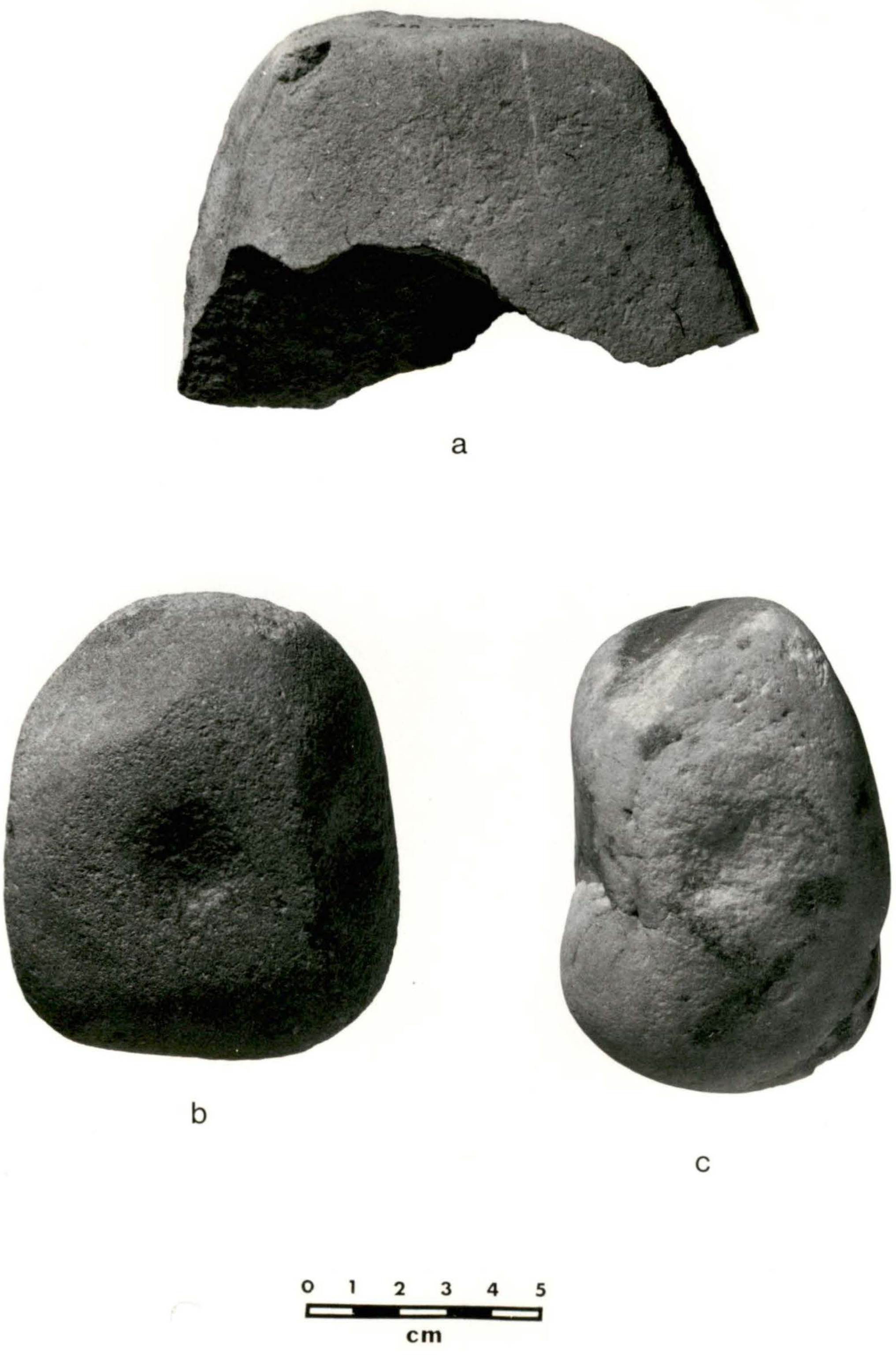


Figure 12. Large processing tools: (a) metate fragments and (b-c) pitted cobbles.

Raw Material: 1 Vein Quartz, 1 Andesite.

Form: These specimens are cobbles with one or more depressions resulting from possible use as an anvil during nut processing.

Comments: Such crushed, depressed ares may also be the result of bispolar lithic reduction, but as no bipolar debitage was present in this assemblage, it is unlikely that these specimens were utilized in bipolar reduction at the Forbush Creek site.

Pecked Ball (Figure 13)

Sample Size: n=1, %=0.02.

Raw Material: 1 Vein Quartz.

Form: This is a small mass that was pecked into a spherical shape.

Comments: Its function is unknown, but similar specimens have been classified as gaming stones (e.g., South 1959:180).

Ground Gorget (Figure 13)

Sample Size: n=2, %=0.04.

Raw Material: 1 Chloritic Schist, 1 Banded Slate.

Form: These specimens are ground into a tabular form, but both are fragmentary and their complete shape is indeterminate.

Comments: The chloritic schist fragment (Figure 13:e) has a tapered shape and has been gouged out at one of the broken ends.

Ground Stone Pendant (Figure 13)

Sample Size: n=2, %=0.04.

Raw Material: 1 Slate, 1 Schist.

Form: These have been ground into an oval to triangular shape and have a single hole drilled near the apex.

Comments: The slate pendant (Figure 13:b) is engraved on both faces. One face has an "X" design while the other dace possesses a series of parallel lines running transverse to the long axis.

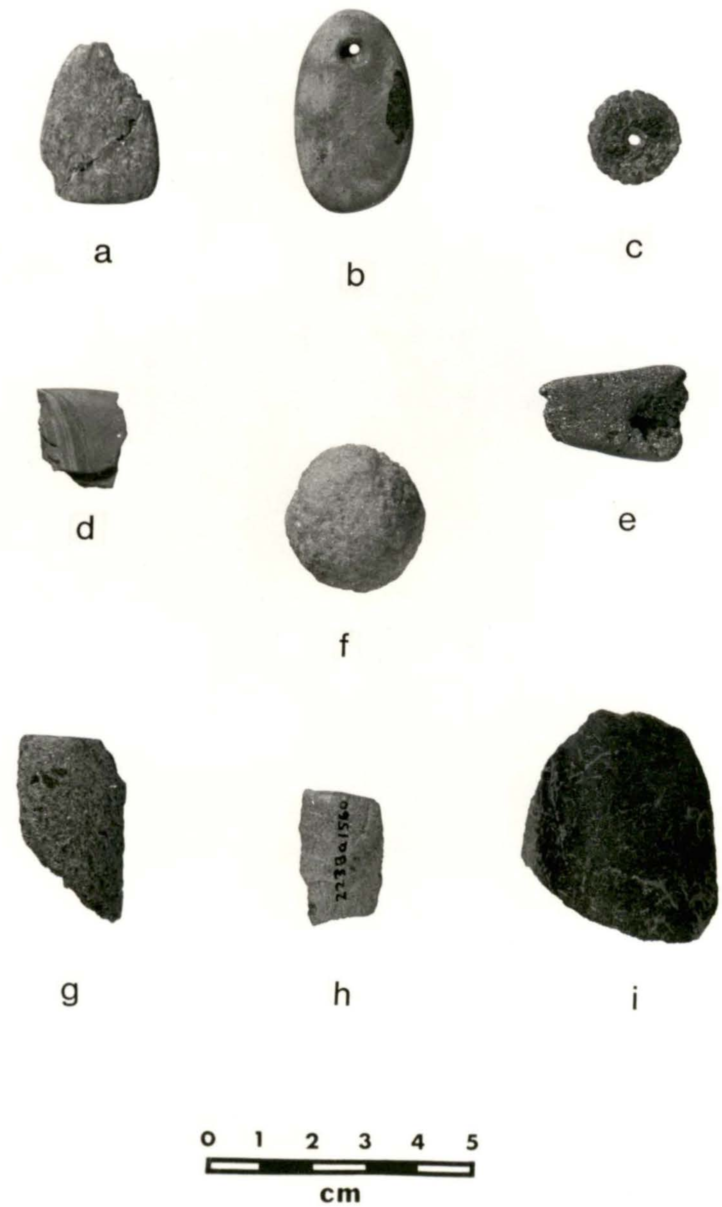


Figure 13. Non-utilitarian items: (a-b) stone pendants; (c) a stone bead; (d-e) ground stone gorget fragments; and (i) a large polished pipe fragment.

Stone Bead (Figure 13)

Sample Size: n=1, %=0.02.

Raw Material: 1 Mica Schist.

Form: This bead has been ground into a flat, circular shape and possesses a scalloped edge and central perforation.

Stone Pipe (Figure 13)

Sample Size: n=3, %=0.06.

Raw Material: 2 Chloritic Schist, 1 Soapstone.

Form: These specimens are rim fragments from two small pipe bowls and one bowl fragment from a large polished tubular pipe with a grooved interior.

Comments: The smaller pipes were probably used for tobacco smoking, while the larger pipe was probably reserved for ceremonial purposes.

DISCUSSION

Characteristics of the Forbush Creek Assemblage

The lithic assemblage from Forbush Creek largely represents raw materials that were obtained locally, such as rhyolite, vein and crystal quartz, and other metavolcanic types, andesite, diorite, gabbro, schist, slate, and soapstone. Only a small percentage (1.34%) of the raw material consisted of non-local chert from the Ridge-and-Valley region to the west.

The complete reduction sequence, from initial decortication to bifacial thinning, is represented by the debitage categories in the assemblage. Percussion and pressure flaking techniques are represented, but there is no evidence to suggest bipolar reduction techniques. Rudimentary blade production techniques are represented by a small percentage (3%) of the debitage.

The chipped stone projectile point types characteristic of this assemblage consist primarily of the pentagonal and small triangular forms. Other stone tool within the assemblage include small tools made from flakes and large tools made from cobbles and other masses of raw material.

The small tool sub-assemblage consists of drills, end scrapers, gravers, perforators, denticulates, and pieces esquillees. Theses tools were made with an economy of workmanship and are not highly formalized. The larger tool sub-assemblage includes choppers, anvils, chipped hoes, chipped axes, hammerstones, pitted cobbles, ground celts, abraders, metates, and manos.

The assemblage also contains other non-utilitarian items, such as pendants, gorgets, and beads, and personal items such as smoking pipes. The large tubular pipe fragment is similar to specimens found elsewhere in the Southeast in mortuary contexts (e.g., Chapman 1979:217) and may have had a ceremonial function. A small pecked stone ball is also present in the assemblage and may have been a gaming stone.

The Introduction of European Metal Tools

To determine what impact the introduction of metal tools had on the composition of aboriginal lithic assemblages used during the Protohistoric and early Historic periods, a comparison was made between the Forbush Creek site assemblage and two assemblages analyzed by Tippitt as part of the 1983-1985 Siouan Project research. The analysis of the lithic assemblages from the Wall site (ca. AD 1550) and the Fredricks site (ca. AD 1700) (Dickens, et al. 1985:536-576) indicate that several tool types disappeared with the introduction and incorporation of European metal tools. Denticulates, chipped hoes, pitted cobbles, anvils, and manos were absent from the assemblage recovered at the protohistoric Wall site.

The 150 years separating the Wall site and the later Fredricks site brought about further changes. The sub-assemblage of small tools used at the Fredricks site did not include denticulates, gravers, or pièces esqillées. The sub-assemblage of larger tools was more greatly effected. Neither chipped hoes, chipped axes, ground celts (in the 1985 archaeological field work two ground celt fragments were recovered), pitted cobbles, anvils, metates, nor manos were present in the assemblage used at the Historic period Fredricks site. Furthermore, personal items of stone such as pendants, gorgets, and beads, also were absent from both the Wall and the Fredricks site assemblages.

European iron hoes, knives, and axes seem to have been used in place of their stone counterparts by the occupants at the Fredricks site, and glass trade beads and metal trade goods seem to have been preferred over the earlier stone non-utilitarian items.

Lithic Tools and Subsistence Activities

The lithic assemblage from the Forbush Creek site suggests subsistence activities centered on utilizing both zoological and botanical resources. Coe (1972:13) observed during excavation of the Forbush Creek site that deer, rabbit, raccoon, birds, and mussels were eaten by the people at the site. Deer was the most common food item. The utilization of these zoological resources required the use of projectile points for hunting; choppers, scrapers, and denticulates for butchering; end scrapers, perforators, and drills for hide processing; and a pièce esquillée for bone working.

Plant food remains observed at the site included corn, beans, acorns, and nuts. Production and gathering of these botanical resources was accomplished with stone hoes and most assuredly with tools and vessels made of perishable raw materials. Pitted cobbles, manos, and metates were used to process these foods. Other bontanical resources, such as wood, would have been gathered and worked using stone axes and celts.

FLint knapping was a very important subsistence activity for the prehistoric Indians. Their stone tools were fashioned from masses of raw material and flakes were struck from cores using hammerstones and antler percussors. Abraders appear to have been used by the flintknappers to dull sharp tool edges. Preforms were made and probably carried or stored until new tools were needed. Table 2 summarizes all tool types and their inferred uses.

These activities appear to be consistent with those represented by the Historic period site assemblages. However, implements such as iron knives, axes, hoes, and rifles had been incorporated into the resource acquisition and processing strategies of the occupants at the Fredricks site. European kaolin pipes, glass trade beads, and metal trade items had also been added to their personal items (Dickens et al. 1985:339-391).

Small Triangular Projectile Points

The projectile point typology defined for the North Carolina Piedmont (e.g., Coe 1964) reflects a decrease in the size of triangular projectile points from the Middle Woodland to the Historic period. This decrease in projectile point size through time was challenged by the results of Tippitt's lithic analysis of the Wall (31Or11), Mitchum (31Ch452), and Fredricks (31Or231) sites. These sites are thought to have been occupied during the late Prehistoric/Protohistoric, early Historic, and Historic periods, respectively. Tippitt's analysis (Dickens et al. 1985:25) indicated a possible trend toward slightly

Table 2. Tool types and inferred uses.

Activity	Tool Type	Inferred Use
Hunting	projectile point	weapon
Butchering	chopper	heavy chopping
	denticulate	cutting
Hide Proccessing	chopper/scraper	heavy chopping and scraping
	end scraper	light scraping
	perforator	punching holes
	drill	boring holes
Bone Working	piece esqillee	scraping and slotting
	graver	engraving and scoring
Agriculture	hoe	planting and harvesting
Food Processing	mano	grinding
	metate	grinding
	pitted cobble	nut cracking and crushing
Wood Working	axe and celt	heavy chopping
		shelter construction
Flint Knapping	hammerstone	percussor
	abrader	grinding tool edges
Non-lithic Tool manufacture	drill	doring holes
	abrader	grinding tool edges

Table 3. Frequency distribution of tool types.

Chipped Stone Tools			Ground Stone Tools		
Tool Type	Number	Percent	Tool Type	Number	Percent
Biface	19	4.94	Ground Celt	2	0.52
Drill	11	2.86	Abrader	1	0.26
End Scraper	7	1.82	Metate	2	0.52
Graver	3	0.78	Mano/Hammerstone	1	0.26
Perforator	15	3.90	Anvil/Hammerstone/Mano	4	1.04
Denticulate	10	2.60	Hammerstone	14	3.64
Pièce Esquillée	1	0.26	Pitted Cobble	2	0.52
Chopper/Scraper	1	0.26	Pecked Ball	1	0.26
Chipped Hoe	5	1.30	Ground Gorget	2	0.52
Chipped Axe	1	0.26	Ground Stone Pendant	2	0.52
Projectile Point	270	70.31	Stone Bead	1	0.26
Preform	7	1.82	Stone Pipe	3	0.78
Total	349	90.90	Total	35	9.10

larger points through the Historic period. If we are to use triangular projectile points as chronological markers for sites without a ceramic component, this discrepency must be resolved. Towards this end, I have reconsidered the hypothesis of reduction in projectile point size through the Middle Woodland and Historic periods by a re-examination of the trend suggested by Tippitt's analysis.

To further examine this trend, a comparison of mean length and width was made between the projectile points from the Forbush Creek site and the three later sites. Though few variations were greater than the standard deviation values, the points from the Forbush Creek site appear to be larger than those from the later Prehistoric/Protohistoric and Historic sites. The graph in Figure 14 illustrates this relationship. Tables 4-6 present the length, width, and thickness measurements for selected projectile point categories in the Forbush Creek site assemblage.

The apparent trend toward larger points within the early Historic period, recognized by Tippitt, is also evident from the graph. The analysis by Davis of the ceramic assemblages from these same sites offers a possible explanation for this observed trend. Since the ceramics recovered from the Wall Site (31Or11) suggest (Dickens et al. 1985:533) a single, brief occupation, it is likely that the projectile points recovered from the site are representative of a late Prehistoric/Protohistoric occupation. The projectile points from the Mitchum and Fredricks sites should, according to the original hypothesis, be smaller than those at the Wall site. This is clearly not the case. Let us examine the results of the ceramic analysis from these two sites.

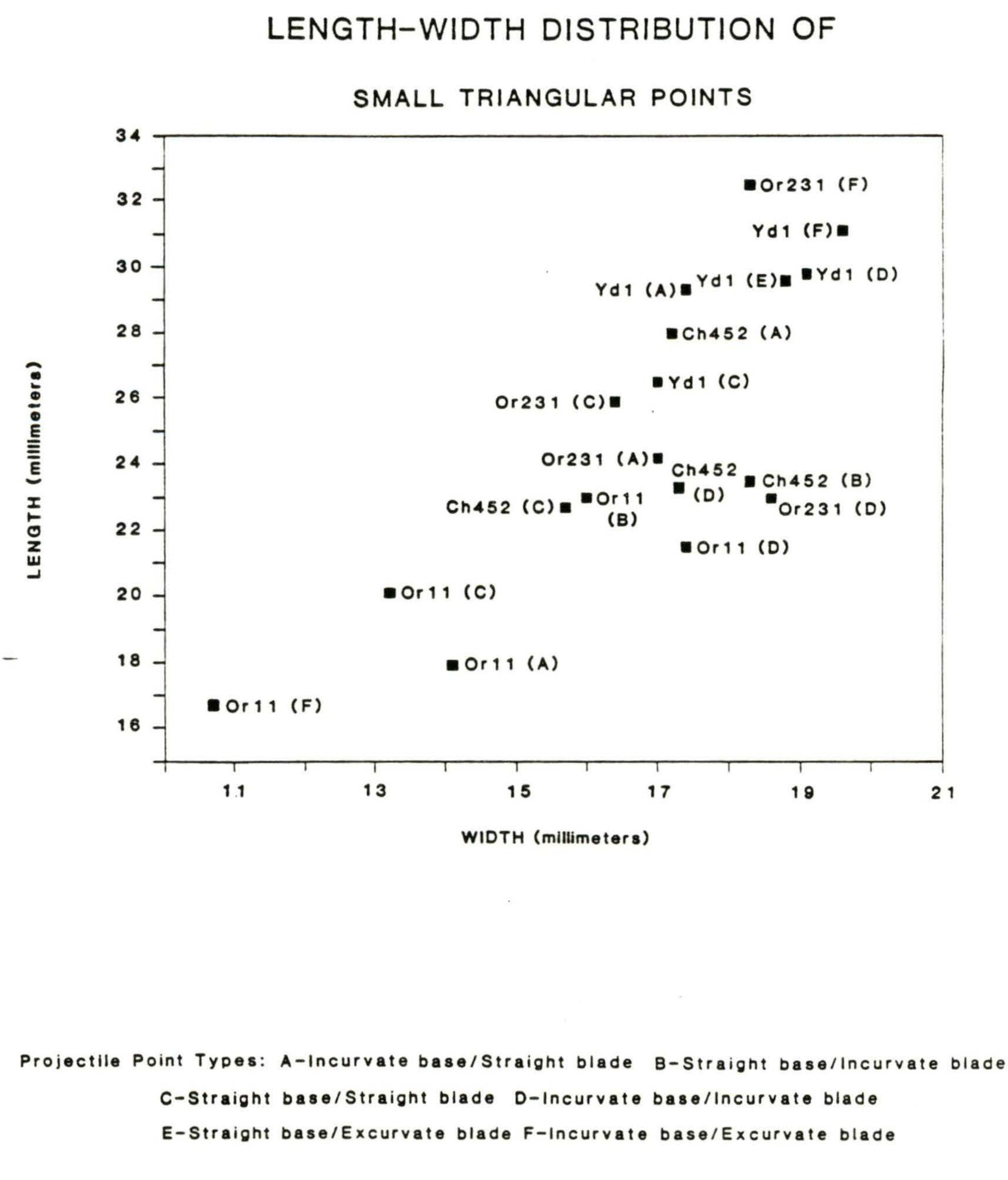


Figure 14. Length-width distribution of small triangular projectile points from the Forbush Creek site (31Yd1); the Wall site (31Or11); the Mitchum site (31Ch452); and the Fredricks site (31Or231).

Table 4. Length measurements for selected projectile point categories (all measurements are in millimeters).

Projectile Point Category	Range	Mean	Standard Deviation	N
Pee Dee Pentagonal	19-36	28.44	4.98	9
Small Triangular Incurvate Base/Straight Blade	22-38	29.25	4.71	8
Small Triangular Straight Base/Incurvate Blade	-	-	-	0
Small Triangular Straight Base/Straight Blade	18-38	26.50	6.74	8
Small Triangular Incurvate Base/Incurvate Blade	23-42	29.76	5.07	17
Small Triangular Straight Base/Excurvate Blade	26-37	29.56	4.03	9
Small Triangular Incurvate Base/Excurvate Blade	21-43	31.13	5.48	15

Table 5. Width measurements for selected projectile point categories (all measurements are in millimeters).

Projectile Point Category	Range	Mean	Standard Deviation	N
Pee Dee Pentagonal	14-32	20.55	4.41	11
Small Triangular Incurvate Base/Straight Blade	11-23	18.44	3.51	25
Small Triangular Straight Base/Incurvate Blade	12-21	17.43	3.10	7
Small Triangular Straight Base/Straight Blade	11-25	18.00	4.49	13
Small Triangular Incurvate Base/Incurvate Blade	15-31	20.13	3.43	31
Small Triangular Straight Base/Excurvate Blade	13-24	19.80	3.22	10
Small Triangular Incurvate Base/Excurvate Blade	13-29	20.63	3.72	16

Table 6. Thickness measurements for selected projectile point categories (all measurements are in millimeters).

Projectile Point Category	Range	Mean	Standard Deviation	N
Pee Dee Pentagonal	3-6	4.40	0.97	10
Small Triangular Incurvate Base/Straight Blade	3-7	4.55	1.00	20
Small Triangular Straight Base/Incurvate Blade	4-6	4.80	1.10	5
Small Triangular Straight Base/Straight Blade	3-65	4.25	0.75	12
Small Triangular Incurvate Base/Incurvate Blade	3-7	4.57	0.82	30
Small Triangular Straight Base/Excurvate Blade	3-8	5.70	1.77	10
Small Triangular Incurvate Base/Excurvate Blade	2-10	5.47	1.84	19

The pottery types from the Mitchum and Fredricks sites (Dickens et al. 1985:532-533) suggest multiple occupations for these sites. Potsherds with net-impressed surfaces were recovered from both sites, suggesting prehistoric occupations during the Late Woodland period. There are strong stylistic and technological relationships between these two ceramic components. The presence of similar Late Woodland occupations at these sites could help explain both the presence of larger projectile points within these sites and the close clustering of the projectile point sizes between the sites.

For this explanation to be viable, the majority of projectile points recovered at these sites would have to be from the earlier Late Woodland period occupations, rather than from the later Historic period occupations. Davis (personal communication) expresses the opinion that due to the introduction of European goods, including rifles, the projectile point industry could have greatly deteriorated by the time of the Historic occupations. Therefore, the Historic period occupations could have produced and used significantly fewer projectile points. If so, then the projectile point samples should largely reflect the earlier occupations.

To test this hypothesis, the proveniences (excavated contexts) of the projectile points from the Mitchum and Fredricks sites were examined. The vast majority of points at both sites were recovered from the plowzone, and very few were recovered from features containing historic artifacts, thus allowing the possibility of a mixed prehistoric and historic sample. In addition, an examination was made of the sizes of projectile points found in features containing historic artifacts. The graph in Figure 15 includes only those projectile points from the Mitchum and Fredricks sites that were found in association with historic

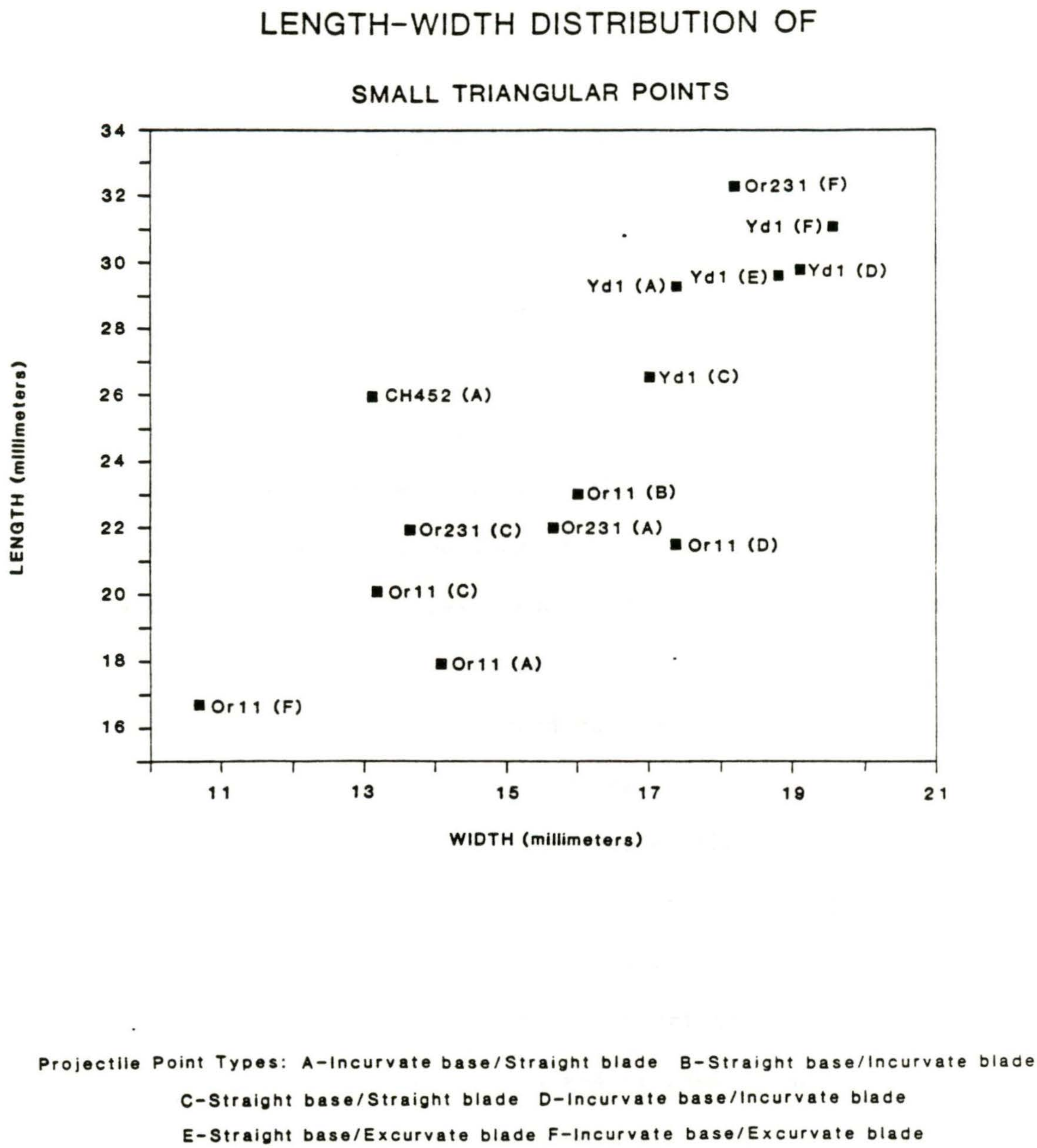


Figure 15. Length-width distribution of small triangular projectile points from the Forbush Creek site (31Yd1); the Wall site (31Or11); the Mitchum site (31Ch452); and the Fredricks site (31Or231); including only those points from the Mitchum and Fredricks sites that were found in association with historic artifacts.

artifacts. The mean length and width measurements of these presumably Historic period points are smaller than those of the points found in the plowzone. When size comparisons are made with the points from the Wall site, the Historic period points are roughly longer, but more narrow than the Protohistoric period points from the Wall site. Although these results do not totally refute the trend toward larger projectile point sizes in the early Historic period, and are preliminary at best because of the very small sample, they do illustrate that the size discrepancy may be a result of multiple occupations at the sites.

SUMMARY

In summary, the lithic assemblage from the Forbush Creek site reflects a community that utilized local raw materials to provide the needed stone tools. The tool types present in the assemblage and the zoological and ethnobotanical remains recovered at the site suggest the following subsistence activities occurred at the Forbush Creek site. The people hunted local wildlife including deer, raccoon, rabbit, and birds with small pentagonal and triangular projectile points. Meat was butchered with choppers, scrapers, and denticulates. Hide processing appears to have been an important activity and involved the use of scrapers and a large number of perforators and drills. The people also gathered river mussels, nuts, and acorns and processed them with pitted cobbles, manos, and metates. Using chipped stone hoes and various other tools, they planted and harvested corn and beans. Wood was gathered and worked with ground stone celts and chipped stone axes. These stone tools were produced using hammerstones, cores, abraders, and preforms. The people possessed non-utilitarian items of stone such as ground gorgets, pipes, beads, and pendants.

The introduction of European metal tools had a profound impact on the aboriginal stone tool sub-assemblage. The lithic assemblages from the protohistoric and historic sites that were used for comparison were missing several of these tool types. For example, the assemblage from the protohistoric Wall site lacked denticulates, chipped hoes, pitted cobbles, anvils, and manos. The stone tool assemblage from the later historic Fredricks site was missing additional tool types. The sub-assemblage of small tools did not include denticulates, gravers, or pièces esquillées. The sub-assemblage of large tools did not include chipped hoes, chipped axes, pitted cobbles, anvils, manos, or metates. Additionally, neither assemblage contained any non-utilitarian items of stone. It appears that these stone items were being replaced by European trade items.

This analysis suggests that small triangular projectile points decreased in size between the Late Woodland and Protohistoric periods. The presence of large triangular projectile points at the two early historic sites is at least partly the result of earlier Woodland period occupations at these sites.

In conclusion, this paper describes the characteristics of a late prehistoric lithic assemblage from the North Carolina Piedmont. An initial comparison with lithic assemblages from later protohistoric and historic sites suggests that there were several changes in the aboriginal technology as a result of the introduction of European metal tools. Hopefully, this study will help provide a better comparative base for future studies of aboriginal culture change in the North Carolina Piedmont.

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APPENDICES

Appendix A. Lithic Artifact Analysis Format.

LABEL	COLUMN	ATTRIBUTE	ATTRIBUTE STATE
SITE	1-6	SITE DESIGNATION (EG., OR231)	
			COUNTY ABBREV. (COL. 1-2)
			SITE NUMBER (COL. 3-5)
			SUFFIX - IF ANY (COL. 6)
ACCESS	8-11	ACCESSION NUMBER (RIGHT JUSTIFIED)	
CLASS	12	SPECIMEN CLASS (EG., A=ARTIFACT)	
SPECNO	13-16	SPECIMEN NUMBER (RIGHT JUSTIFIED)	
SUBNO	17	SPECIMEN SUBNUMBER (EG., /N OR -N)	
BLANK	18-19	BLANK CATEGORY	
			0 UNIDENTIFIED
			1 PRIMARY DECORTICATION FLAKE
			2 SECONDARY DECORTICATION FLAKE
			3 INTERIOR FLAKE
			4 BIFACIAL THINNING FLAKE
			5 BIPOLAR FLAKE
			6 CORE REJUVENATION FLAKE
			7 BLADE
			8 BLADE CORE
			9 RANDOM CORE
			10 BIPOLAR CORE
			11 SHATTER FRAGMENT
			12 UTILIZABLE RAW MATERIAL
			13 BIFACE
			14 PROJECTILE POINT FRAG (UNID)
			15 PIECE ESQUILLEE
			16 PREFORM
			17 FIRE CRACKED ROCK
			18 MISC. FRACTURED ROCK
			19 FCR/MISC FRACT. ROCK
			20 CLOVIS
			21 HARDAWAY SIDE NOTCHED
			22 PALMER
			23 KIRK CORNER NOTCHED
			24 KIRK STEMMED
			25 LECROY
			26 SAINT ALBANS
			27 KANAWHA
			28 STANLY
			29 MORROW MOUNTAIN I
			30 MORROW MOUNTAIN II
			31 GUILFORD
			32 HALIFAX
			33 SAVANNAH RIVER
			34 SMALL STEMMED
			35 BADIN TRIANGULAR

Appendix A Continued.

LABEL	COLUMN	ATTRIBUTE	ATTRIBUTE STATE
			36 YADKIN TRIANGULAR
			37 UWHARRIE TRIANGULAR
			38 CARAWAY TRIANGULAR
			39 HILLSBORO TRIANGULAR
			40 PEEDEE PENTAGONAL
			41 RANDOLPH STEMMED
			42 UNIDENTIFIED TRIANGULAR
			43 SM.TRI. INCURV.BASE-STR.BLADE
			44 SM.TRI. STR.BASE-INCURV.BLADE
			45 SM.TRI. STR.BASE-STR.BLADE
			46 SM.TRI. INCURV.BASE-INCURV.BLADE
			47 SM.TRI. STR.BASE-EXCURV.BLADE
			48 SM.TRI. INCURV.BASE-EXCURV.BLADE
			49 PPT FRAG. (PROB ARCHAIC)
			50 PPT FRAG. (PROB WOODLAND)
			51 SOAPSTONE BOWL FRAGMENT
			52 COBBLE
			53 EARED YADKIN
			54 PROJ. PT. FRAG. (SERRATED)
			55 FLAKE (UNSPECIFIED)
			56 RAW MATERIAL
			57 ARCHAIC HAFTED BIFACE
			58 BIFACE (PROB. ARCHAIC)
			59 BIFACE (PROB. WOODLAND)
			60 BIFURCATE PT. (INDET.)
			61 BIFACE FRAGMENT
			99 INDETERMINATE
WE	21-22	WORKING EDGE CATEGORY	
			0 UNIDENTIFIED
			1 UNMODIFIED (INCLUDES COMPLETE PPTS.)
			2 PROJ. PT. FRAG. - TIP
			3 PROJ. PT. FRAG. - LATERAL EDGE
			4 PROJ. PT. FRAG. - HAFT ELEMENT
			5 UTILIZED EDGE
			6 RETOUCHED EDGE
			7 UTILIZED/RETOUCHED EDGE
			8 DRILL (ALTERNATE FLAKING)
			9 END SCRAPER
			10 SIDE SCRAPER
			11 GRAVER
			12 PERFORATOR (PARALLEL FLAKING)
			13 SPOKESHAVE
			14 DENTICULATE
			15 BURIN
			16 CHIPPED CHISEL
			17 CHOPPER/SCRAPER

Appendix A Continued.

LABEL	COLUMN	ATTRIBUTE	ATTRIBUTE STATE
			18 CHOPPER
			19 CHIPPED HOE
			20 CHIPPED AXE
			21 GROUND CELT
			22 GROUND CHISEL
			23 GROOVED AXE
			24 HAMMERSTONE
			25 ABRADER
			26 MANO
			27 NUTTING STONE
			28 PITTED COBBLE
			29 STONE PIPE
			30 ATLATL WEIGHT
			31 STONE BEAD
			32 STONE PENDANT
			33 MANO/HAMMERSTONE
			34 PECKED BALL
			35 ANVIL/CHOPPER
			36 ANVIL/HAMMERSTONE/MANO
			37 GROUND GORGET
			38 METATE
			99 INDETERMINATE
MATERIAL	24-25	RAW MATERIAL TYPE	
			0 UNIDENTIFIED
			1 UNIDENTIFIED CHERT
			2 RIDGE & VALLEY CHERT
			3 COASTAL PLAIN CHERT
			4 OTHER CHERT - LOCAL
			5 OTHER CHERT - NONLOCAL
			6 JASPER
			7 CHALCEDONY
			8 SANDSTONE
			9 LIMESTONE
			10 SHALE
			11 SILTSTONE
			12 QUARTZITE
			13 GNEISS
			14 SCHIST
			15 MICA SCHIST
			16 SOAPSTONE
			17 SLATE
			18 VEIN QUARTZ
			19 CRYSTAL QUARTZ
			20 RHYOLITE
			21 ARGILLITE
			22 VITRIC TUFF

Appendix A Continued.

LABEL	COLUMN	ATTRIBUTE	ATTRIBUTE STATE
			23 OTHER METAVOLCANIC
			24 - not used -
			25 FINE GRAINED SLATE
			26 BANDED SLATE
			27 STEATITE
			99 INDETERMINATE
COND	26	TOOL CONDITION	
			0 UNIDENTIFIED
			1 NOT OBSERVED
			2 COMPLETE
			3 BROKEN - IN MANUFACTURE
			4 BROKEN - IN USE
			5 BROKEN - REWORKED
			6 BROKEN - INDETERMINATE
			7 DISTAL IMPACT FRACTURE
SIZE	27	ARTIFACT SIZE	
			1 <1 CM DIAMETER
			2 1-2 CM DIAMETER
			3 2-4 CM DIAMETER
			4 4-6 CM DIAMETER
			5 6-8 CM DIAMETER
			6 8-10 CM DIAMETER
			7 >10 CM DIAMETER
			8 INDETERMINATE / NOT MEASURED
FREQ	28-29	ARTIFACT FREQUENCY	
TOOLNO	30-31	UNIQUE TOOL NO. (1/N PER SITE)	
LENGTH	32-34	MEASURED LENGTH (TO NEAREST MM)	
WIDTH	35-36	MEASURED WIDTH (TO NEAREST MM)	
THICK	37-38	MEASURED THICKNESS (TO NEAREST MM)	
NOTCH	39-40	NOTCH WIDTH (TO NEAREST MM)	
STEMW	41-42	STEM WIDTH (TO NEAREST MM)	
STEMTH	43-44	STEM THICKNESS (TO NEAREST MM)	

Appendix A Continued.

LABEL	COLUMN	ATTRIBUTE	ATTRIBUTE STATE
ORIENT	45	SPECIMEN ORIENTATION (WHEN MEASURED)	
			1 DORSAL FACE UP
			2 DORSAL/VENTRAL FACES INTETERMINATE
LE1SHAPE	46	LATERAL EDGE1 SHAPE	
			1 EXCURVATE
			2 INCURVATE
			3 STRAIGHT
LE2SHAPE	47	LATERAL EDGE2 SHAPE	
			1 EXCURVATE
			2 INCURVATE
			3 STRAIGHT
BASESHAPE	48	BASAL EDGE CURVATURE	
			1 EXCURVATE
			2 INCURVATE
			3 STRAIGHT
LE1CURV	49-50	LATERAL EDGE1 CURVATURE	
			(RATIO = LENGTH/EDGE DEPTH)
LE2CURV	51-52	LATERAL EDGE2 CURVATURE	
			(RATIO = LENGTH/EDGE DEPTH)
BASECURV	53-54	BASAL EDGE CURVATURE	
			(RATIO = LENGTH/EDGE DEPTH)
ANGLE1	55-56	ANGLE OF BASE TO LATERAL EDGE1	
ANGLE2	57-58	ANGLE OF BASE TO LATERAL EDGE2	
PATIN	59	DEGREE OF PATINATION	
			1 INDETERMINATE
			2 FRESH
			3 SOME (LESS THAN 10%)
			4 OUTSIDE COMPLETE
			5 CORE ALL PATINATED
			6 #2 ON #3
			7 #2 ON #4

Appendix A Continued.

LABEL	COLUMN	ATTRIBUTE	ATTRIBUTE STATE
			8 #2 ON #5
			9 #3 ON #4
MISSPART	60	MISSING PARTS (FOR PPTS. ONLY)	
			1 TIP (<10%)
			2 DISTAL END (>10%)
			3 TANG1
			4 TANG2
			5 TIP/DISTAL END & TANG1
			6 TIP/DISTAL END & TANG2
			7 TIP/DISTAL END & TANGS 1&2
			8 TANGS 1 & 2
			9 PROXIMAL END
SQUARE	61-68	SQUARE DESIGNATION (SE CORNER COORDINATE)	
FEA	70-72	FEATURE #	
BUR	73-75	BURIAL #	
STR	76-77	STRUCTURE #	
ZONE	78-79	ZONE CONTEXT	
			1-50 ZONE 1 TO ZONE 50
			51 CLEANING TOP
			52 MISC. FILL/ASSOCIATIONS
			53 POSTHOLE FILL
			54 SURFACE
			55 GENERAL TROWELING/CLEANING

Appendix B Distribution of Lithic Artifacts by Feature.

Feature	Type	Artifact Categories 1	2	3	4	5	6	7	8	9	10
43	Refuse Pit	2	18	30	-	2	-	3	-	-	-
44	Tree Stump	2	12	18	-	1	-	2	-	-	-
45	Hearth	-	-	-	-	-	-	-	-	-	-
46	Hearth	-	5	14	-	-	-	2	1	-	-
47	Hearth	-	-	-	-	-	-	-	-	-	-
48	Refuse Pit	-	-	3	-	-	-	-	-	-	-
49	Refuse Pit	-	11	25	-	1	-	4	-	-	-
50	Hearth	-	-	-	-	-	-	-	-	-	-
51	Hearth	-	-	1	-	-	1	-	-	-	-
52	Storage Pit	1	3	2	1	-	-	3	1	-	-
53	Refuse Pit	-	5	13	-	1	-	3	-	-	-
54	Refuse Pit	-	1	-	-	-	-	-	-	-	-
55	Refuse Pit	-	4	9	-	-	-	3	2	-	1
56	Refuse Pit	-	-	3	-	-	-	1	-	-	-
57	Hearth	-	2	1	-	-	-	-	-	-	-
58	Refuse Pit	-	1	8	-	-	-	1	-	-	-
59	Refuse Pit	-	7	33	-	4	-	1	-	-	-
60	Refuse Pit	3	34	141	-	3	-	2	-	-	-
61	Storage Pit	3	36	57	-	2	-	3	2	-	-
62	Refuse Pit	-	1	2	-	-	-	-	1	-	-
63	Refuse Pit	-	9	3	-	-	-	1	-	-	-
64	Refuse Pit	-	2	4	-	-	-	1	-	-	-
65	Refuse Pit	1	11	34	-	-	-	1	1	-	-
66	Refuse Pit	4	5	10	-	-	-	3	-	-	-
67	Refuse Pit	-	1	1	-	-	-	-	-	-	-
68	Refuse Pit	-	2	10	-	-	-	-	-	-	-
69	Refuse Pit	4	5	9	-	1	-	2	-	-	-
70	Refuse Pit	1	-	5	-	-	-	-	-	-	-
71	Refuse Pit	-	-	-	-	-	-	-	-	-	-
72	Tree Stump	-	5	10	-	1	-	1	-	-	-
73	Storage Pit	1	8	29	-	-	-	4	2	-	-
74	Storage Pit	18	174	336	-	18	-	36	2	2	-
75	Storage Pit	3	27	163	-	4	-	3	-	-	-
76	Storage Pit	-	2	8	-	1	-	-	-	-	-
77	Storage Pit	-	7	14	-	3	-	2	1	-	-
78	Storage Pit	2	16	44	-	-	-	-	-	-	-
79	Refuse Pit	-	17	17	-	1	-	4	-	-	-
80	Refuse Pit	2	5	42	-	2	-	4	1	-	-
81	Storage Pit	4	20	38	-	2	-	8	-	-	-
82	Storage Pit	5	41	76	-	2	-	8	6	-	-
83	Storage Pit	3	15	44	-	4	-	4	1	1	-
84	Refuse Pit	1	4	23	-	1	-	1	-	-	-
85	Refuse Pit	-	2	11	-	-	-	3	2	-	-
86	Storage Pit	3	32	66	-	-	1	16	1	1	-
87	Storage Pit	-	-	-	-	1	-	-	-	-	-
88	Storage Pit	2	16	28	-	-	-	5	1	-	-
89	Refuse Pit	1	4	5	-	-	-	1	-	-	-

Appendix B Continued.

		Artifact Categories									
Feature	Type	1	2	3	4	5	6	7	8	9	10
90	Storage Pit	6	66	120	-	17	-	10	2	1	-
91	Refuse Pit	2	9	8	-	4	-	6	-	-	-
92	Refuse Pit	10	170	329	-	23	-	2	1	-	-
93	Refuse Pit	-	6	7	-	4	-	1	-	-	-
94	Refuse Pit	1	5	9	-	-	-	1	-	-	-
95	Refuse Pit	2	6	11	-	-	-	3	2	-	1
96	Storage Pit	-	3	14	-	1	-	4	1	-	-
97	Storage Pit	-	1	4	-	-	-	8	2	-	-
98	Storage Pit	-	15	20	-	1	-	4	1	1	-
99	Refuse Pit	1	6	5	1	-	-	-	-	-	-
100	Storage Pit	4	21	81	-	5	-	4	-	4	1
101	Storage Pit	1	17	30	-	-	-	1	1	2	-
102	Refuse Pit	-	1	6	-	-	-	-	-	-	-
103	Storage Pit	1	18	31	-	2	-	5	-	-	-
104	Refuse Pit	1	2	4	-	2	-	1	-	-	-
105	Storage Pit	4	22	54	-	2	-	2	1	2	-
106	Storage Pit	-	6	13	-	-	-	10	1	-	-
107	Storage Pit	3	15	38	-	2	-	4	1	3	-
108	Storage Pit	1	8	10	-	1	-	7	1	-	-
109	Storage Pit	-	14	28	-	1	-	4	2	-	-
110	Storage Pit	-	10	19	-	-	-	5	-	1	-
111	Storage Pit	1	2	4	-	1	-	-	-	-	-
112	Storage Pit	1	16	34	-	2	-	5	-	-	-
113	Storage Pit	-	3	17	-	1	-	2	-	-	-
114	Storage Pit	-	1	2	-	-	-	-	-	-	-
115	Storage Pit	-	22	34	1	2	-	3	-	-	-
116	Storage Pit	1	5	7	-	1	-	1	-	-	-
117	Storage Pit	-	5	7	-	-	-	-	1	-	-
118	Storage Pit	1	-	14	-	-	-	1	-	-	-
119	Storage Pit	-	3	12	-	1	-	-	-	-	-
120	Storage Pit	2	7	12	-	3	-	3	1	1	-
121	Storage Pit	-	24	42	1	5	-	1	-	-	-
122	Storage Pit	1	19	33	-	3	-	-	-	-	-
123	Storage Pit	-	14	40	-	4	-	6	-	-	-
124	Storage Pit	-	5	12	-	-	-	-	2	-	-
125	Storage Pit	7	7	30	-	-	-	3	4	-	-
126	Storage Pit	1	4	12	-	1	-	-	-	-	-
Total		118	1128	2543	4	144	2	243	49	19	3

Appendix B Continued.

Feature	Artifact Categories 11	12	13	14	15	16	17	18	19	20	21	22
43	-	-	-	-	-	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-	-	-	-	-	1
45	-	-	-	-	-	-	-	-	-	-	-	-
46	1	-	-	-	-	-	-	1	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-
49	-	-	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-
52	1	-	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	1
56	-	-	1	-	-	-	-	-	-	-	-	-
57	1	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	1
59	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	2	-	-	-	-	-	-	-
61	1	-	-	-	-	-	-	-	-	-	-	-
62	-	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-
66	-	-	-	-	-	-	-	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	1	-	-	-	-	-	-
69	-	-	-	-	1	-	-	-	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-	-	-	-	-	-
72	-	-	-	-	-	-	-	-	-	-	-	-
73	-	-	-	-	-	-	1	-	-	-	-	-
74	2	-	1	-	1	1	-	-	-	-	-	2
75	-	-	1	-	-	-	-	-	-	1	-	-
76	-	-	-	-	-	-	-	-	-	-	-	-
77	-	-	-	-	-	-	-	-	-	-	-	2
78	-	-	1	-	1	-	-	-	-	-	-	-
79	-	-	-	-	-	-	-	-	-	-	-	2
80	-	-	-	-	-	-	-	-	-	-	-	-
81	-	-	-	-	-	-	-	-	-	-	-	-
82	-	-	1	1	-	-	-	-	-	1	1	-
83	-	-	-	-	-	-	-	-	-	-	-	-
84	-	-	-	-	2	1	-	-	-	-	-	-
85	-	1	-	-	-	-	-	-	-	-	-	-
86	-	-	-	-	-	-	-	-	-	-	-	3
87	-	-	-	-	-	-	-	-	-	-	-	-
88	-	-	-	-	-	-	-	-	-	1	-	-
89	-	-	-	-	-	-	-	-	-	-	-	-

Appendix B Continued.

Feature	Artifact Categories 11	12	13	14	15	16	17	18	19	20	21	22
90	-	-	-	1	1	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-	-	-	-	-	1
92	-	-	-	1	-	-	-	-	-	-	-	2
93	-	-	-	-	-	-	-	-	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-
95	-	-	-	-	-	-	-	-	-	-	-	-
96	-	-	-	-	-	-	-	-	-	-	-	-
97	-	1	-	-	-	-	-	-	-	-	-	1
98	-	-	-	-	1	-	-	-	-	-	-	-
99	-	-	-	-	-	-	-	-	-	-	-	-
100	-	1	-	-	-	-	1	-	-	-	-	1
101	1	-	-	-	1	1	-	-	-	1	-	-
102	-	-	-	-	-	-	-	-	-	-	-	-
103	4	-	1	-	-	-	-	-	-	-	-	-
104	-	-	-	-	-	-	-	-	-	-	-	-
105	-	3	1	-	-	-	-	-	-	-	-	-
106	-	-	-	-	1	-	-	-	-	-	-	-
107	1	1	-	-	-	-	-	-	-	-	-	-
108	-	-	-	-	-	-	-	-	-	-	-	-
109	-	-	-	-	-	-	-	-	-	-	-	-
110	-	-	-	-	-	-	-	-	-	-	-	-
111	-	-	-	-	-	-	-	-	1	-	-	-
112	-	-	-	-	-	-	-	-	-	-	-	1
113	-	-	-	-	-	2	-	-	-	-	-	-
114	1	-	-	-	-	-	-	-	-	-	-	2
115	-	-	-	-	-	1	-	-	-	-	-	-
116	-	-	-	-	-	1	-	-	-	-	-	-
117	-	2	-	-	1	-	-	-	-	-	-	-
118	-	-	-	-	1	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	1	-	-	-	-	-	-	-
121	1	-	-	-	-	-	-	-	-	-	-	-
122	-	-	-	-	-	-	-	-	-	1	-	-
123	2	1	-	-	1	-	-	-	-	-	-	-
124	-	-	-	-	-	-	-	-	-	-	-	-
125	3	-	-	-	-	-	-	-	-	-	-	-
126	-	2	-	-	-	-	-	-	-	-	-	-
Total	19	12	7	3	15	8	2	1	1	5	1	20

Appendix B Continued.

Feature	23	24	25	26	27	28	29	30	31	32	33	34
					Artifact Categories							
43	-	-	-	-	-	-	-	-	-	-	-	-
44	-	1	-	-	-	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	-	-	-	-	-
49	-	1	-	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	-	-	-
52	-	1	-	-	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-	-	-	-	-	-
60	-	2	-	-	-	-	-	-	-	-	-	-
61	-	4	-	-	-	-	-	-	-	-	-	-
62	-	1	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	1	-	-	-	-
65	-	-	-	-	-	-	-	-	-	-	-	-
66	-	-	-	-	-	-	-	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-	-	-	-
69	-	-	-	-	-	-	-	-	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-	-	-	-	-	-
72	-	-	-	-	-	-	-	-	-	-	-	-
73	1	8	-	-	-	-	-	-	-	-	-	-
74	-	17	-	-	-	1	-	1	-	-	-	1
75	-	5	-	-	-	-	-	-	-	-	-	-
76	-	1	-	-	-	-	-	-	-	-	-	-
77	-	-	-	-	-	-	-	-	-	-	-	-
78	-	1	-	-	-	-	-	-	-	-	-	-
79	-	1	-	-	-	-	-	2	-	-	-	-
80	-	-	-	-	-	-	-	-	-	-	-	-
81	-	4	-	-	-	-	-	1	-	-	-	-
82	-	5	1	-	-	-	-	-	2	-	-	-
83	-	5	-	-	-	-	-	-	-	-	-	-
84	-	2	-	-	-	-	-	-	-	-	-	-
85	-	-	-	-	-	-	-	-	-	-	-	-
86	-	9	-	-	-	-	1	2	-	1	-	-
87	-	-	-	-	-	-	-	-	-	-	-	-
88	-	2	-	-	-	-	-	-	-	-	-	-
89	-	1	-	-	-	-	-	-	-	-	-	-

Appendix B Continued.

Feature	Artifact Categories 23	24	25	26	27	28	29	30	31	32	33	34
90	-	7	-	-	-	-	-	-	-	-	-	-
91	-	1	-	-	-	-	-	1	-	-	-	-
92	-	4	-	-	-	-	-	-	-	-	-	-
93	-	-	-	-	-	-	-	2	-	-	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-
95	-	2	-	-	-	-	-	-	-	-	-	-
96	-	-	-	-	-	-	-	-	-	-	-	-
97	-	5	-	-	-	-	-	1	-	-	-	-
98	-	2	-	-	-	-	-	-	-	-	-	-
99	-	-	-	-	1	-	-	-	-	-	-	-
100	-	9	-	-	-	-	-	-	-	-	-	-
101	1	4	-	-	-	-	-	1	-	-	-	-
102	-	1	-	-	-	-	-	-	-	-	-	-
103	-	10	1	-	-	-	-	-	-	-	-	-
104	-	1	-	-	-	-	-	-	-	-	-	-
105	-	5	-	-	-	-	-	-	-	-	-	-
106	-	11	-	-	-	-	-	-	-	-	-	-
107	-	7	-	-	-	-	-	1	-	-	-	-
108	-	8	-	-	-	-	-	-	-	-	-	-
109	-	4	-	-	-	-	2	-	-	-	-	-
110	-	2	-	-	-	-	-	-	-	-	1	-
111	-	-	-	-	-	-	-	-	-	-	-	-
112	-	3	-	-	-	-	1	-	-	-	-	-
113	-	1	-	-	-	-	-	-	-	-	1	-
114	-	6	-	-	-	-	-	-	-	-	-	-
115	-	-	-	-	-	-	-	-	-	-	-	-
116	-	5	-	1	-	-	-	-	-	-	-	-
117	-	-	-	-	-	-	-	-	-	-	-	-
118	-	-	-	-	-	-	-	-	-	-	-	-
119	-	-	-	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	-	-	-	-	-
121	-	3	-	-	-	-	-	-	-	-	-	-
122	-	1	-	-	1	-	-	-	-	-	-	-
123	-	3	-	-	-	-	-	-	-	-	-	-
124	-	-	-	-	-	-	-	-	-	-	-	-
125	-	2	-	-	-	-	-	-	-	-	-	1
126	-	6	-	-	-	-	-	1	-	-	-	-
Total	2	184	2	1	2	1	4	14	2	1	2	2

Appendix B Continued.

Feature	Artifact Categories 35	36	37	38	39	Total
43	-	-	1	1	-	57
44	-	-	-	-	-	37
45	-	-	-	-	-	0
46	-	-	1	-	-	25
47	-	-	-	-	-	0
48	-	-	-	-	-	3
49	-	-	2	-	-	44
50	-	-	-	-	-	0
51	-	-	-	-	-	2
52	-	-	-	-	-	13
53	-	-	-	-	-	22
54	-	-	-	-	-	1
55	-	-	-	-	-	20
56	-	-	-	-	-	5
57	-	-	-	-	-	4
58	-	-	1	-	-	12
59	-	-	-	-	-	45
60	-	-	2	1	-	190
61	-	-	1	-	1	110
62	-	-	-	-	-	5
63	-	-	-	-	-	13
64	-	-	-	-	-	8
65	-	-	-	-	-	48
66	-	-	-	-	-	22
67	-	-	-	-	-	2
68	-	-	-	-	-	13
69	-	-	-	-	-	22
70	-	-	-	1	-	7
71	-	-	-	-	-	0
72	-	-	2	-	-	19
73	-	-	-	3	-	57
74	1	-	10	13	1	638
75	-	-	1	-	-	208
76	-	-	-	-	-	12
77	-	-	-	1	-	30
78	-	-	1	-	-	66
79	-	-	1	-	-	45
80	-	-	2	-	-	58
81	-	1	3	-	1	82
82	-	-	5	-	-	155
83	-	-	2	1	1	81
84	-	-	-	-	-	35
85	-	-	-	-	-	19
86	-	-	2	4	-	142
87	-	-	-	-	-	1
88	-	-	3	-	-	58
89	-	-	-	-	-	12

Appendix B Continued.

	Artifact Categories					
Feature	35	36	37	38	39	Total
90	-	-	2	4	1	238
91	-	-	-	-	-	32
92	-	-	-	3	-	545
93	-	-	-	-	-	20
94	-	-	1	-	-	17
95	-	-	-	-	-	27
96	-	-	-	-	-	23
97	-	-	-	2	-	25
98	-	-	1	-	-	46
99	-	-	1	-	1	16
100	-	-	6	6	1	145
101	-	-	1	-	-	63
102	-	-	-	-	-	8
103	-	-	4	-	-	77
104	-	-	1	1	-	13
105	-	-	1	-	-	97
106	-	-	-	1	-	43
107	-	1	3	1	-	81
108	-	-	1	-	-	37
109	-	-	-	2	-	57
110	-	-	3	1	-	42
111	-	-	-	1	-	10
112	-	-	3	-	-	66
113	-	-	5	1	-	33
114	-	-	-	1	-	13
115	-	-	5	-	-	68
116	-	-	2	-	-	24
117	-	-	1	2	-	19
118	-	-	1	-	-	18
119	-	-	-	-	-	16
120	-	-	1	-	-	31
121	-	-	-	2	-	79
122	-	-	3	-	-	62
123	-	-	-	1	-	72
124	-	-	-	3	-	22
125	-	1	3	-	-	61
126	-	-	-	1	-	28
Total	1	3	89	58	7	4722

[1]KEY TO ARTIFACT CATEGORY CODES.

1. Primary Decortication Flake
2. Secondary Decortication Flake
3. Interior/Bifacial Thinning Flake
4. Core Rejuvenation Flake
5. Blade
6. Raw Material
7. Utilized Flake
8. Retouched Flake
9. Utilized/Retouched Flake
10. Core
11. Biface
12. Drill
13. End Scraper
14. Graver
15. Perforator
16. Denticulate
17. Pièce Esquillée
18. Chopper/Scraper
19. Chopper
20. Chipped Hoe
21. Chipped Axe
22. Pentagonal Projectile Point
23. Stemmed Projectile Point
24. Triangular Projectile Point
25. Ground Celt
26. Abrader
27. Metate
28. Mano/Hammerstone
29. Anvil/Hammerstone/Mano
30. Hammerstone
31. Pitted Cobble
32. Pecked Ball
33. Ground Gorget
34. Stone Pendant
35. Stone Bead
36. Stone Pipe
37. Shatter Fragment
38. Projectile Point Fragment
39. Projectile Point Preform