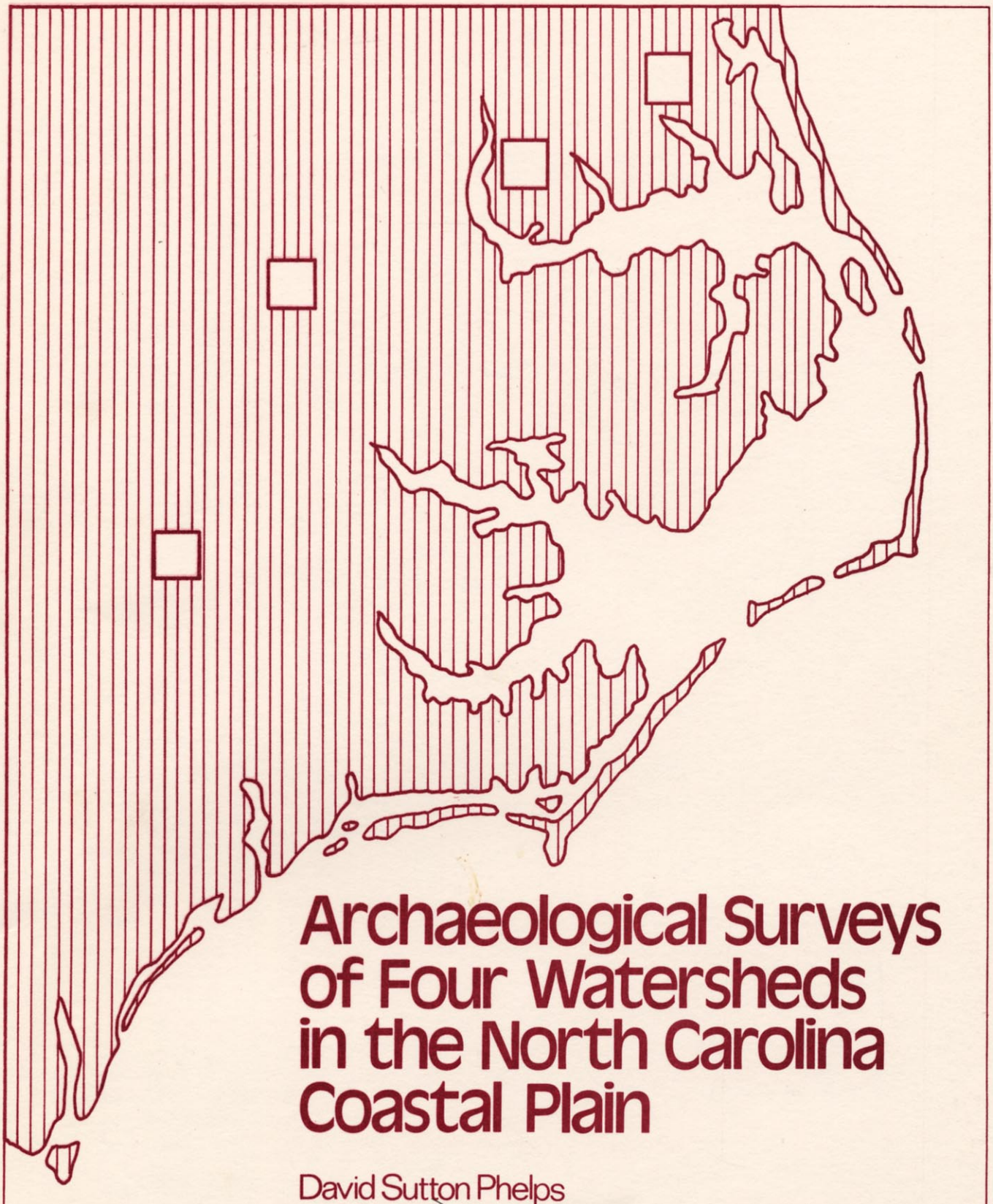

Archaeological Surveys of Four Watersheds in the North Carolina Coastal Plain

David Sutton Phelps

North Carolina Archaeological Council Publication 16

ARCHAEOLOGICAL SURVEYS OF FOUR WATERSHEDS IN THE NORTH CAROLINA COASTAL PLAIN

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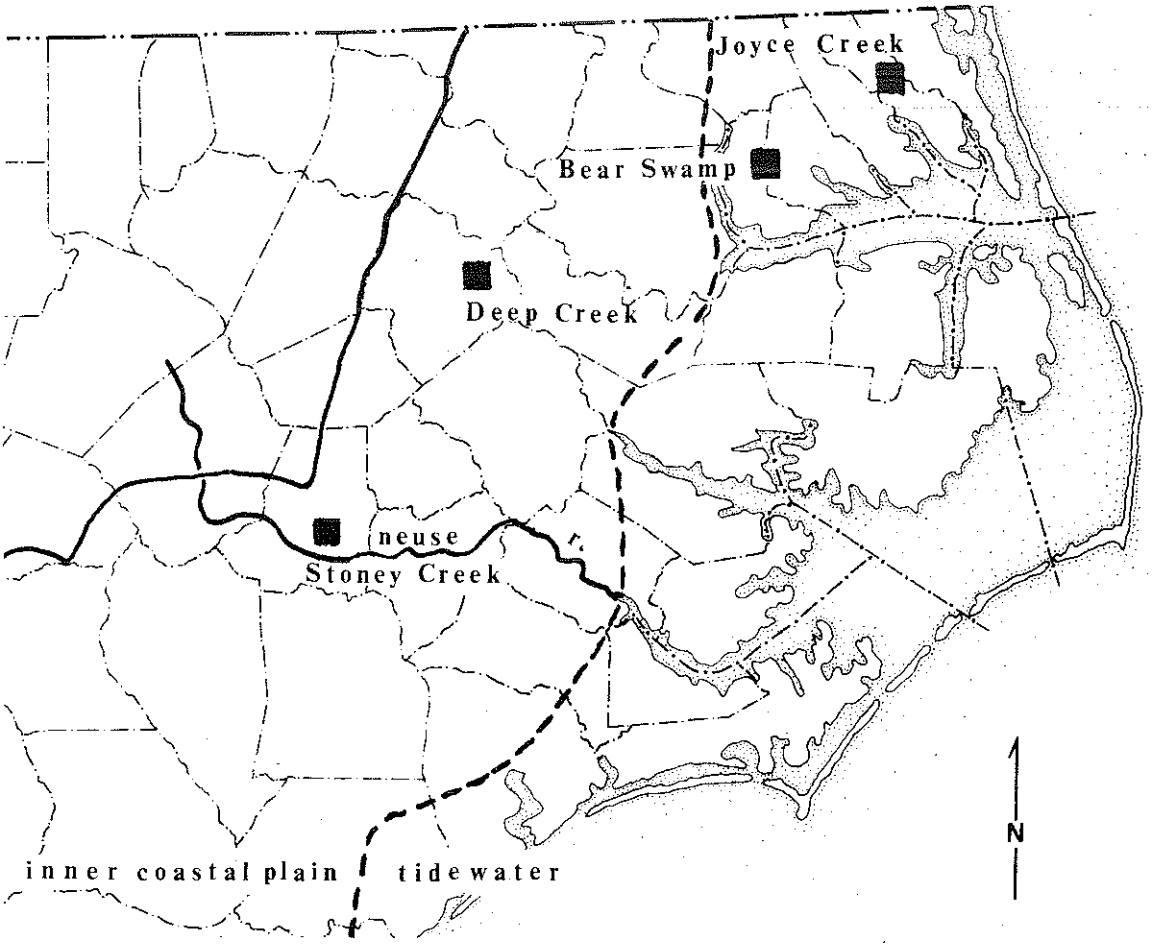
PREFACE

The four papers in this publication resulted from some of the first environmental impact studies performed by East Carolina University in 1974-75, at a time when problems of typology, site distribution, and chronology were far from a satisfactory solution and constituted primary research concerns. In the five years since these studies were completed, considerable knowledge has accrued and this preface is provided to correlate some of the data and conclusions in the papers with the current working model of culture history for the North Carolina coastal plain. This does not imply that the problems have been completely solved, but that present data and concepts provide a more accurate framework than that available five years ago.

Three of the projects, Joyce Creek, Bear Swamp and Stoney Creek were surveys of small watersheds in which modification of the streams was proposed for flood control purposes. In all three of these, the total watershed area to be affected by project construction was surveyed. The Deep Creek study, while part of a large flood control project for that stream system, relates only to a cluster of archaeological sites near the town of Speed and not to the entire Deep Creek watershed. The Joyce Creek and Bear Swamp projects are located in the Tidewater region of the Coastal Plain province, while Deep Creek and Stoney Creek are on the Inner Coastal Plain (see map on following page). These two physiographic regions differ significantly and their differences dictated the settlement distribution and adaptation characteristic of the cultural continuum in each region. The vast expanses of flat to gently rolling sandy loams on the Inner Coastal Plain support a very high density of sites even along the smaller tributary streams, and the sites are closely spaced in an almost continuous distribution along the sandy ridges of the stream floodplain margins. The Tidewater region, with its interspersed sandy ridges and wet soils of swamps and pocosins, and the complexity of its sounds, trunk estuaries and tributary streams, more severely limited settlement location, and clustering of sites on the isolated upland ridges near streams is a typical pattern.

Regardless of the physiographic differences, Archaic stage sites are far more frequent and widely dispersed than those of earlier and later prehistoric cultural stages. Sites of the Early Woodland substage are, however, nearly as frequent as those of the Archaic, and are usually succeeding components on the previous Archaic settlements. This argues for a basic continuity of subsistence and exploitation patterns from the Archaic into Early Woodland times. In the more isolated locations and along smaller tributary streams, there is a significant decrease in the number of sites of the Middle and Late Woodland substages. A few small sites can be found in those environmental niches, but most of the later sites are near major trunk stream and larger tributaries on the Inner Coastal Plain, and on the sounds, estuaries and major



trunk streams in the Tidewater. Selectivity for these sites seems to include larger expanses of arable soils, and certainly population trended to cluster in larger permanent sites. A comparison of the Stoney Creek and Joyce Creek studies is illustrative of the settlement distribution along smaller streams in the two regions. Bear Swamp appears to be typical of pocosin utilization in the Tidewater, and the Parker and other sites on Deep Creek are an example of abandonment of long-occupied sites for more favorable agricultural locations after the Early Woodland substage.

The current cultural-spatial model divides the Coastal Plain province into North and South Coastal cultural regions (Phelps 1980). The division between these two is the Neuse River drainage, above and below which cultural differences can be perceived during the Woodland stage; prior to that time, there is no regional distinction. All of the studies in this volume are located in the North Coastal Region, and the Stoney Creek project area, near the regional boundary, reflects a mixture of traits from the two regions.

A cultural-historical model for the Coastal Plain was presented at the "Symposium of the Prehistory of North Carolina" in March, 1980, at Raleigh (Phelps 1980), and the cultural sequence from that presentation appears on the following page. Since that presentation, some changes in the sequence have been made.

The Palmer phase, originally assigned to the Archaic stage, has been recognized as a Late Paleo-Indian Transitional phenomenon, and thus, along with Hardaway, is pushed backward in time. Consequently, the Clovis phase probably predates 10,000 BC instead of the date shown on the chart. The "Paleo-Indian Transitional" projectile points reported in the Deep Creek and Stoney Creek studies belong to this transitional time between Hardaway and Palmer, where their attributes of rudimentary fluting and/or basal thinning, ground bases, and shallow corner-notching most logically fit.

The Deep Creek phase in the North Coastal Region derives its nomenclature from the creek of the same name, and was initially formulated on the basis of the ceramic assemblage from the Parker site and others in the Deep Creek study. Since that project, the assemblage has been identified at other sites in the Tar and Roanoke river drainages, and elsewhere in the region. The coarse sand tempered ceramics of the Deep Creek series with cord, net and fabric impressed exterior finishes are typical of this Early Woodland assemblage. Occurring with these are minor quantities of a steatite tempered ware reminiscent of the Marcey Creek series to the north, and a sand tempered simple stamped type reflective of both Thom's Creek and the late Deptford simple stamping to the south. The association of these "foreign" types with Deep Creek emphasizes the marginal nature of the North Coastal Region in the Early Woodland. Also occurring at the Parker site and sites on Stoney Creek are plain fiber tempered ceramics generally similar to the Stallings Plain type further south. This type currently has its most northerly distribution along the Tar River, and increases in frequency from the Neuse southward. The stratigraphic position and association of fiber tempered ceramics are poorly understood at present, but it frequently occurs with the Deep Creek series in surface collections in the southern edge of the North Coastal Region in the Inner Coastal Plain.

A sand and pebble (sand and "grit") tempered ceramic series (Mount Pleasant) now characterizes the Middle Woodland substage in the North Coastal Region. At the time these papers were written, the series had not yet been separated and is reported as "grit tempered" in the analyses. Similarly, "clay tempered" in the papers usually refers to both pure clay and clay/sand inclusions, and the specific relationship of these specimens to the South Coastal Hanover series has yet to be worked out. Clay inclusions occur randomly in other North Coastal ceramic series, but the association of pure clay tempering in the region is not yet clear.

CULTURAL SEQUENCE: NORTH CAROLINA COASTAL PLAIN

dates	stage	sub-stage	regional phases: NORTH COASTAL	regional phases: SOUTH COASTAL
	HISTORIC		(meherrin) (tuscarora)	(waccamaw; pee dee)
1710				
1650			(carolina algonkians)	
	WOODLAND	Late	Colington-Cashie	Oak Island
800				
AD/BC		Middle	Mount Pleasant	Cape Fear [Hanover]
300				
		Early	Deep Creek	New River [Deptford]
1000				
	ARCHAIC	Late		Thom's Creek / Stallings
2000			Savannah River	
3000		Middle	Halifax	Guilford / Morrow Mountain / Stanly
5000		Early	Kirk / Palmer	
8000	PALEO-INDIAN	Late	Hardaway	
9000		Early	Clovis	

The Late Woodland ceramic series are the Colington shell tempered, present at one of the Joyce Creek sites, and the Cashie pebble tempered ware in the Inner Coastal Plain. A few of the latter type probably were mis-classified in the Stoney Creek study because the Cashie series had not then been identified.

The Mount Pleasant and Colington-Cashie phases are now well-authenticated temporally with a series of radiocarbon dates which provide the basis for the cultural sequences in the accompanying chart.

D.S.P.
June, 1981

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1980 "Prehistory of the North Carolina Coast and Coastal Plain". Presented at the Symposium on the Prehistory of North Carolina, March, 1980. Raleigh.

AN ARCHAEOLOGICAL SURVEY OF THE BEAR SWAMP WATERSHED

Prepared for the
Archaeology Section
Division of Archives and History
North Carolina Department of Cultural Resources
and the
Soil Conservation Service
United States Department of Agriculture

by

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January, 1975

AN ARCHAEOLOGICAL SURVEY OF THE BEAR SWAMP WATERSHED

David Sutton Phelps

ABSTRACT

An archaeological survey of the Bear Swamp watershed was performed to determine the impact of stream channel modification proposed by the Soil Conservation Service upon archaeological and historical resources.

Bear Swamp, located in Chowan and Perquimans counties in the North Carolina coastal region, is a low depression with primarily interior drainage. The depression is a remnant lagoon of the Sangamon Interglacial sea stand in which present physiographic features still reflect its origin. Topography within the swamp is a generally flat expanse relieved only along major stream channels where elevated sandy ridges occur. Soils within Bear Swamp are excellent for agriculture but have been utilized sparingly because of extremely poor drainage.

Six prehistoric sites were recorded in the project area of the watershed; three of these produced significant data. No sites of significant historic or architectural importance were found. None of the recorded sites will be impacted by the proposed construction, and no further investigation related to this project is required.

Primary occupation in the Bear Swamp project area occurred during the Archaic period (8000-1000 B.C.), with the most intense utilization between 4500 B.C. and 1000 B.C., in the Morrow Mountain, Guilford, and Savannah River phases. The distribution of Archaic sites correlates with the distribution of elevated sandy ridges in immediate proximity to major stream channels. Prehistoric use of the locality after 1000 B.C. was sporadic, with major sites of the Woodland period farming cultures located only on the periphery of the depression.

A settlement model for this type of environment is proposed, but will require further field testing.

INTRODUCTION

An archaeological survey of the Bear Swamp watershed was undertaken to determine the impact of approximately 17.5 miles of stream channel modification proposed by the Soil Conservation Service,

United States Department of Agriculture, upon archaeological and historical resources. The survey was performed by the Archaeology Research Laboratory, Department of Sociology and Anthropology, East Carolina University, under a contract with the Archaeology Section, Division of Archives and History, North Carolina Department of Cultural Resources. This report is submitted in fulfillment of that contract.

Under the directorship of the author, the project commenced on July 22, 1974, with a review of resource data; field operations began on July 24 and were completed on August 23, 1974. A report summarizing the field work was submitted on August 27, 1974, and concluded that no adverse effects upon historical or archaeological sites or materials would occur from the proposed channel modification. Subsequently, a more detailed analysis of sites, materials and environment has been completed and, although recommendations included in the field report have not been altered, a more significant relationship of man to the Bear Swamp environment has begun to emerge.

It should be emphasized that this project was limited to an inspection of the channel and flood plain, and immediately adjacent margins, along the laterals included in the project area (Figure 1). Within those limitations, a complete archaeological survey of Bear Swamp is not reported here. However, the data do imply a need for such a survey to authenticate some of the hypotheses resulting from this study.

THE BEAR SWAMP ENVIRONMENT

Bear Swamp is a poorly drained depression located in Chowan and Perquimans counties, in the coastal region of North Carolina. It

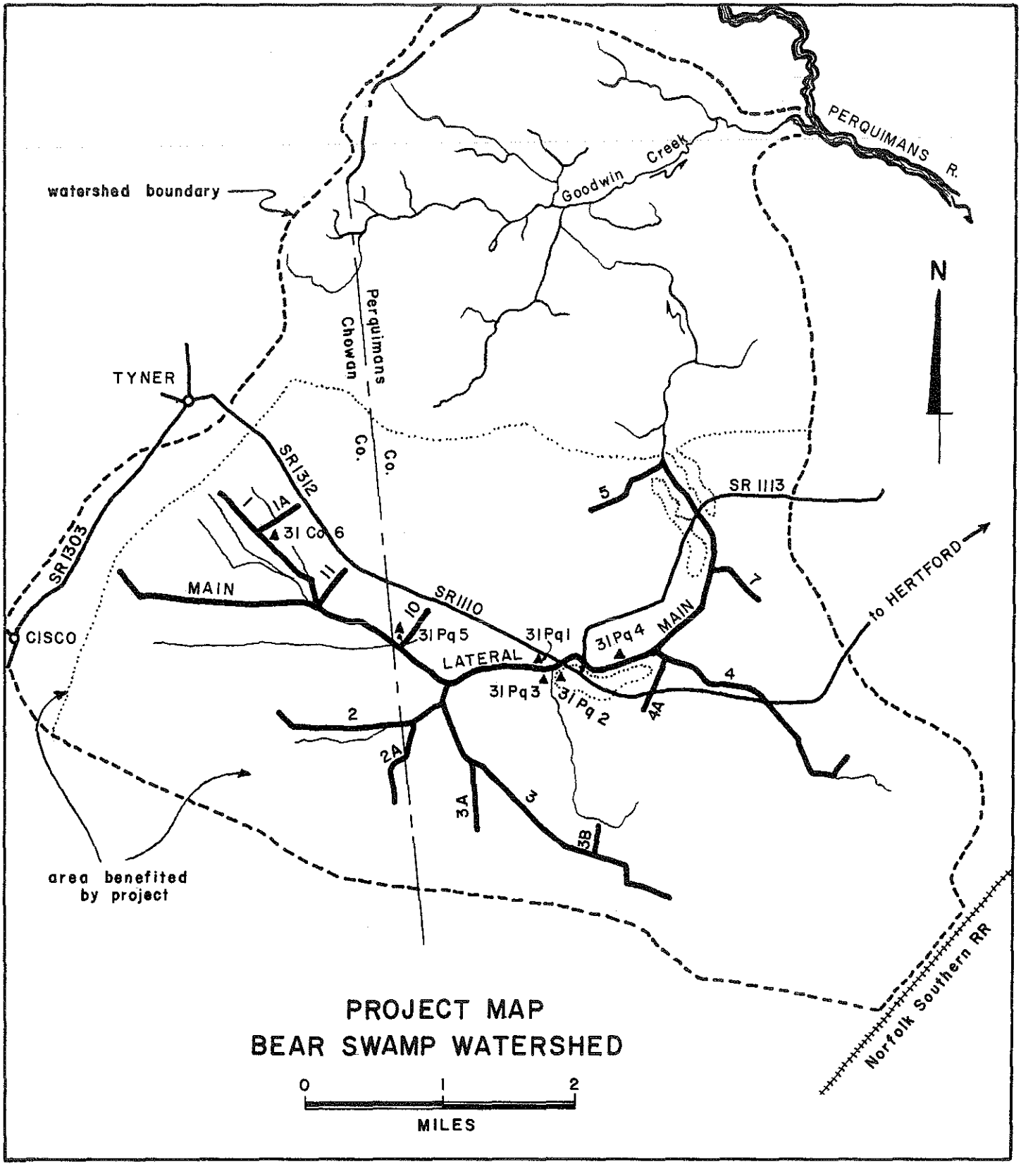


Figure 1. Prehistoric sites in the Bear Swamp watershed.

lies primarily south of a line drawn from Hertford, Perquimans County, to Tyner, Chowan County. The southern margin is approximately two miles north of Edenton, Chowan County.

Elevations within Bear Swamp range from 5 to around 18 feet above sea level, the higher elevations occurring on sandy ridges along stream channels within the essentially low, flat terrain. The northern section of Bear Swamp is drained by the Main Lateral (as defined in this project) into Goodwin Creek (previously Goodwin Mill Creek, Goodings Mill Creek), and thence into the Perquimans River. Burnt Mill Creek and its tributary streams drain the southern section into the Yeopim River.

The basin now known as Bear Swamp apparently formed as a brackish lagoon during the Sangamon Interglacial, some 70,000 years ago. Evidence of oyster reefs of the Pamlico formation at depths of 6 feet below the present surface has been reported from Bear Swamp and a similar geophysical situation north of the Perquimans River near Nicanor (Richards 1950: 40). The western edge of the swamp is blocked by a distinctive high ridge (Suffolk scarp) of sandy soils with elevations ranging upward to 50 feet above sea level. This ridge trends generally southwest-northeast and is apparently a remnant beach line from earlier Pleistocene sea stands (Hearn 1907: 6). The Pamlico Terrace, marking the maximum sea level during the Sangamon Interglacial, lies along the eastern side of this ridge at an elevation of 25 feet above present sea level (Richards 1950: 39). Traveling eastward from Tyner (elevation 40 feet), the descent into the basin is remarkably obvious. Along this route, the Pamlico Terrace is crossed approximately .75 mile east of Tyner. The southern and eastern margins of Bear Swamp are bordered

by lower sandy ridges, 10 to 15 feet above sea level, also derived from Pleistocene sedimentary deposits. On the north, the swamp margins are defined by a complex distribution of sand ridges bordering the drainage patterns of Goodwin Creek and the Perquimans River.

Deposition within Bear Swamp during and subsequent to the Wisconsin Glacial has buried the Pamlico formation under soils of the Portsmouth-Bladen-Bayboro association. This association is the most extensive within the basin, containing soils described as poorly to very poorly drained, having thick black loam or fine sandy loam surfaces and firm, sticky clay subsoils (Soil Conservation Service 1971). Earlier soil maps assign most of the soils in the basin to the Portsmouth series. The lowest and most extensive of these is the Portsmouth loam, with a black, thick surface, clay subsoil and very poor drainage. It occupies the major internal extent of the basin, and is considered highly adaptive to corn agriculture (Hearn 1907: 21-22). However, this soil primarily supports swamp forest growth, its very poor drainage presently discluding it from major agricultural use. The outer margins of the basin consist of Portsmouth fine sandy loam, deposited in a generally flat expanse except near stream courses where undulating ridges occur in its surface. The ridges are well drained, but poor drainage is typical of the flats, and the type is classified as an excellent general agricultural soil (Hearn 1907: 18-19). Within the project area, the Main Lateral and its tributaries primarily drain an area of Portsmouth fine sandy loam.

Flanking the Main Lateral as it turns to run northward into Goodwin Creek are areas of Norfolk fine sandy loam. These are

relatively high, well drained, undulating ridges classified as one of the best soil types for general agriculture (Hearn 1907: 14-15). The modern classification includes this type in the Coxville-Lenoir-Dunbar association (Soil Conservation Service 1971).

From station 200 + 50 northward the flood plain of the Main Lateral is sufficiently mature to be classified as swamp (Swamp-Alluvial Lands (Wet) association). This classification also applies along Lateral 4 from station 86 + 5 to its confluence with the Main Lateral.

Land cleared for agricultural purposes in the project area is almost completely within the distribution of Portsmouth and Norfolk fine sandy loams. In fact, this correlation applies to the entire Bear Swamp basin. In this particular environmental situation, the efficiency of soil drainage is directly related to human utilization of the environment which can be traced back to 7000 B.C. Not only are all of the recorded prehistoric human occupation sites limited to higher elevations of the Portsmouth and Norfolk fine sandy loams, there also appears to be a high correlation of early modern farmsteads with these features.

SITES RECORDED IN THE SURVEY

Prior to this project, no prehistoric sites were known or recorded in the Bear Swamp locality, nor were any on file for all of Perquimans County. Five sites were on record for Chowan County, but none of these were in the project area.

Six prehistoric sites were located and recorded by the survey in the Bear Swamp watershed. One of these is in Chowan County, the remainder are in Perquimans County. No historic remains of significant antiquity were located or recorded. The prehistoric sites are described below.

Chowan County

31 Co 6--Jordan site.

This site is situated on the T. J. Jordan estate in a field immediately northeast of the confluence of Laterals 1 and 1A (Figure 1). The western side of the field adjacent to Lateral 1A is elevated approximately 5 feet above normal water level in the laterals. This site is near the western margin of the Bear Swamp basin, approximately one-half mile east of the Pamlico Terrace. It lies within and near the southern border of a zone of Portsmouth fine sandy loam and probably was originally situated on the highest available elevation in this locale.

Mr. T. J. Jordan, who led the field crew to the site, stated that the field had been bulldozed approximately ten years ago to level the area for agricultural activities. Prior to that, Mr. Jordan had found numerous fragments of prehistoric ceramic vessels (potsherds) in the site area. No prehistoric or historic remains were recovered here, leading to the conclusion that all evidence of previous occupation or use had been removed or destroyed by the earth-moving activities.

On the basis of the material verbally reported by Mr. Jordan, the site had been occupied sometime between 1000 B.C. and A.D. 1650 by people of the ceramic-producing, agricultural Woodland Tradition.

Since the site had been previously destroyed, the proposed channelization will have no effect upon cultural remains, and no further work is recommended for 31 Co 6.

Perquimans County

31 Pq 1--Sutton site.

The Sutton site is located south of SR 1110 in the southwestern

corner of property owned by Mrs. Jack Sutton (Figures 1-2). It lies on a roughly oval sandy ridge bounded on its southern margin by the flood plain of the Bear Swamp Main Lateral; to the west, the ridge slopes abruptly downward to a drainage ditch separating the Sutton and F. N. Mansfield tracts. The ridge, elevated approximately 10 feet above the flood plain, lies within a soil zone of Portsmouth fine sandy loam.

The site was planted in corn when visited by the survey team, and has been cultivated for a considerable length of time. Between the cultivated area and the flood plain are a few pine and oak trees, perhaps indicative of the previous forest stand on the ridge. The flood plain, here classified as Swamp-Alluvial Lands (Wet) association, supports gum and cypress with a dense understory and ground cover of smaller vegetation. Flood plain width along the Main Lateral at this point averages 500 feet.

Cultural materials collected from 31 Pq 1 were relatively few in number, primarily because of the difficulty in locating specimens beneath the dense crop and grass cover. The sample obtained during the survey, augmented by data from a locally-owned private collection from this site, was minimally sufficient for analysis of site content and occupation. The specimens are described below by functional class with assignment of cultural phase when possible.

Projectile Points: The distal (point-end) fragment of a red quartzite projectile point, lenticular in cross-section, and measuring 30 mm. from point to fracture line, was one of two such artifacts reclaimed from this site. The blade edges exhibit excellent secondary

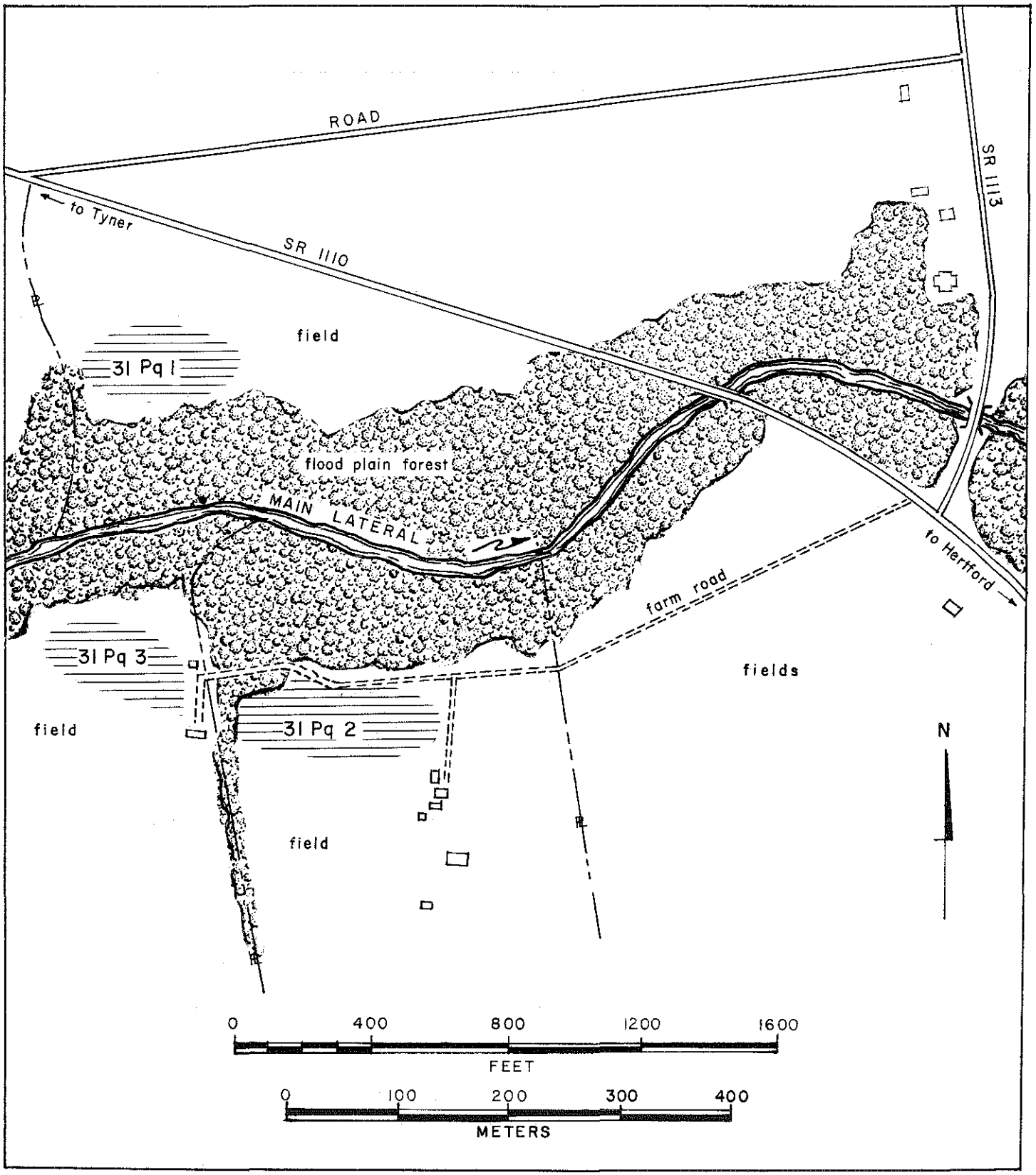


Figure 2. Detail map of sites 31 Pq 1, 31 Pq 2 and 31 Pq 3.

flaking, and flake scars across the blade are bilateral in relation to the centerline of the blade. Although fragmentary, the point appears to have been lanceolate in shape. Based on the presumed shape and bilateral flake scars, the point may be tentatively assigned to the Guilford type which normally possesses these attributes. A relative date for this type is around 4000 B.C. (Coe 1964: 44).

The artifact illustrated in Figure 3c is broken; the dotted line is a speculative reconstruction of its length based on observable shape and on comparative data. The existing fragment is 52 mm. long and has a pronounced lenticular cross-section, almost diamond-shaped. The stone is tan-gray quartzite, and has been shaped by percussion flaking. Based on the narrow, lanceolate shape and the lenticular cross-section, this was a "pre-form", or "blank", for a Guilford projectile point. It was roughly percussion chipped into shape and would have been stored until needed whereupon final chipping would have been performed.

Blades: Three of the four blades from 31 Pq 1 are shown in Figure 3. The term "blade" is frequently used as a catch-all category of chipped stone artifacts where the explicit function cannot be readily discerned. Subsumed here under that classification are two functional types. The first of these is the actual cutting blade, synonymous with the modern concept of "knife". The distinctive attributes of this blade type are (1) pressure flaking scars along the blade edges rendering them sufficiently sharp for cutting purposes, and (2) dulling or scarring of the blade edges from wear when used as a

cutting tool. The general shape attributes of such blades appears to vary widely in time and space. Two of these artifacts are illustrated in Figure 3a and d.

The blade in Figure 3a is tan quartzite; it measures 60 mm. in length, has an average width of 30 mm. at its mid-point and an elliptical to slightly ovate cross-section. It was produced by percussion flaking (direct hammer blows) and then sharpened by pressure, or secondary, flaking along the blade edges. The convex base was more carefully retouched than other edges, and shows the highest degree of wear. The small blade shown in Figure 3d is white quartz and has one end broken away; the dotted line represents an hypothetical reconstruction. Its length from break to tip is 41 mm. and its mid-section width averages 23 mm. All edges exhibit fine pressure retouch resulting in very small flake scars. The surface collection also yielded the fragmentary basal section of a small quartz blade 22 mm. long and 20 mm. wide. The blade edges were finely pressure flaked and quite sharp. Basal shape and upper blade width proportions indicate its original shape may have been ovate-triangular.

Figure 3b is best classified as a "quarry blade", or "blank". These terms refer to the stage of production rather than to what the eventual finished product might have become. At their source (quarries in the Piedmont; pebbles, cobbles or boulders from stream beds or sedimentary strata), large stones were roughly percussion chipped into an easily transportable form. In the case of smaller cobbles and pebbles, these were brought to the site in natural form and then

modified. The percussion chipped "blanks" were then stored until required for production of one or more specific tools. The "quarry blade" in Figure 3b was a stream-polished cobble of gray quartzite, the smooth surface of which is still observable on the reverse side along two-thirds of the blade centerline. The flake scars are large and randomly placed, indicative of the most rudimentary preparation. The artifact measures 82 mm. in length and 34 mm. in width.

Hammerstones: Two quartzite hammerstones were reclaimed from the site. These were cobbles utilized for general hammering purposes without modification of their original shapes except use-wear on one or more surfaces. The pattern of wear is the characteristic "pecking", or dislodgment of particles and flakes leaving a pitted surface. One of the hammerstones may also have served as a grinding or polishing tool, since one surface has a slightly polished area characteristic of abrasive wear.

Spalls: The site surface was littered with numerous spalls, or flakes, resulting from the production of stone tools. A representative sample of these was collected, including specimens of quartzite (most frequent), quartz (frequent), and a mottled gray flint (rare).

Ceramics: Only one potsherd was recovered from the site. It is small (approximately 15 mm. square), undecorated, and tempered with fine sand. Its existence indicates possible occasional use of the site during the Woodland period (after 1000 B.C.), but this evidence is extremely tenuous.

The Lane Collection: Augmenting the above data is the collection of artifacts from 31 Pq 1 owned by Mr. Archie Lane, who obtained them

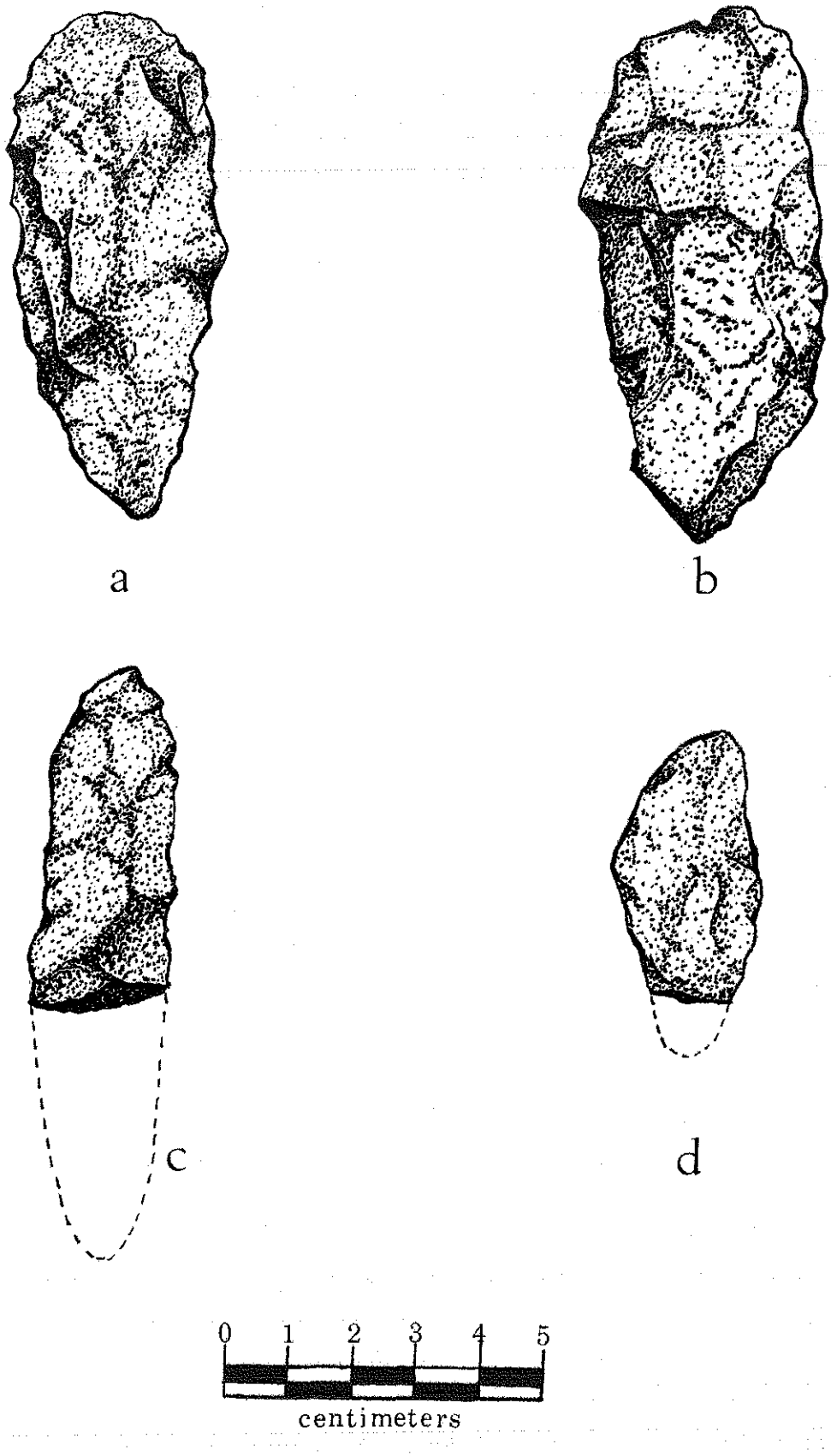


Figure 3. Chipped stone blades (a-b, d) and a Guilford pre-form (c) from 31 Pq 1. (actual size)

from the site surface over a period of years while cultivating the field. The most diagnostic specimens in the collection are spear points of the following types: Kirk corner-notched, Morrow Mountain, Guilford, Halifax, and Savannah River. A polished, full-grooved stone axe in the collection is assignable to the Savannah River phase.

The Sutton site experienced sporadic occupation during the Archaic period (8000-1000 B.C.), when it was probably used as a temporary (or seasonal) hunting camp taking advantage of the abundant faunal populations of Bear Swamp. The Archaic was typified by a pre-agricultural tradition of subsistence based on maximum exploitation of the natural environment through hunting, fishing, and plant collecting.

The specific site sequence is derived from the projectile points diagnostic of particular phases of the Archaic period, with dates based on the only extant summary for this period of prehistory in North Carolina (Coe 1964: Figure 116). The sequence for 31 Pq 1 is as follows: Kirk phase, 6500-5500 B.C.; Morrow Mountain phase, 4500-3500 B.C.; Guilford phase, ca. 4000 B.C.; Halifax phase, 4000-3000 B.C.; and Savannah River phase, 3000-1000 B.C. The single ceramic fragment may indicate a minor occupation post-dating 1000 B.C., but such evidence is inconclusive. Based on the sample, the site was occupied briefly around 6000 B.C. and then experienced a cultural hiatus of around 1500 years. Maximum utilization began around 4500 B.C. and was more or less continuous until 1000 B.C. After that time, little evidence of occupation exists until modern times.

The extensive cultivation of the field in which the Sutton site lies has completely disturbed any stratified remains which may have

existed. However, it is unlikely that a small camp of this type, occupied sporadically, would have experienced significant accretion of soil or cultural deposits. Similarly, it is unlikely that periodic inundation from the Main Lateral would have resulted in sedimentary accretion on the sandy ridge sufficient to bury cultural materials. The present elevation of the ridge is most likely due to Pleistocene sedimentation, pre-dating human use of the site.

The site requires no further archaeological investigation other than augmentation of the surface collection, and will in no way be adversely affected by channel modification.

31 Pq 2--High Ridge site.

31 Pq3--High Ridge (extension).

The High Ridge sites (Figure 1) are discussed together because of the probability that they are parts of the same occupation area which have arbitrarily separated in modern times by a drainage ditch, hedgerow, and farm road. 31 Pq 2 was originally named the "White site" in the project field report, but has been re-designated.

The sites are located south of the Main Lateral, and approximately 1200 feet west of the bridge which carries SR 1110 over the Main Lateral (Figure 2). They are directly south, across the Main Lateral, from 31 Pq 1. Both sites are situated on a sandy ridge elevated between 10 and 15 feet above sea level. The general area of the ridge contains some of the highest elevations (up to 17 feet above sea level) in the Bear Swamp basin, and much of it is discluded from the "area benefited" classification on the Soil Conservation Service project map (Figure 1).

On the earlier soil maps for Chowan and Perquimans counties the soil zone for this ridge is classified as Norfolk fine sandy loam, derived from Pleistocene deposits and well drained due to loss of its silt content.

31 Pq 3 occupies the westernmost extension of ridge at its lowest elevation on the property of Robert Holowell. The main site, 31 Pq 2, is located east of 31 Pq 3 on the W. Ray White tract at elevations above 10 feet. Both sites have been long cultivated, and were in crops when surveyed. On both properties, adjacent to the prehistoric sites, are historic residences dating to the 19th century, thus located to take advantage of the high ridge at a time when drainage was less efficient.

Both sites are outside the Main Lateral flood plain, a description of which was presented under 31 Pq 1, and are similar in environmental associations to the latter site. The cultural materials collected during the survey are described below; all except three worked stone flakes were obtained from 31 Pq 2.

Projectile points: Nineteen projectile points (all spear points) were recovered from the High Ridge site. Four of these were fragmentary, thus unassignable to particular culture phases; the remainder were produced during the Morrow Mountain (4500-3500 B.C.) and Savannah River (3000-1000 B.C.) phases.

Points of the Morrow Mountain phase are classifiable into two types, Morrow Mountain I and Morrow Mountain II. The primary differences between the two types are in blade proportions (the latter type has a longer, more narrow blade) and in the more narrow stem and development of shoulders in Morrow Mountain II (Coe 1964: 37). However, the material from which Morrow Mountain points in the Coastal Plain are

produced differs significantly from the Piedmont types.

Nine points from 31 Pq 2 belong to the Morrow Mountain I type. Eight of these were sufficiently intact to permit measurement, while the ninth was a basal fragment only. Eight of the points were made from tan or gray quartzite, and one was rose quartz. All show fair to good secondary retouch. Six of these points are illustrated in Figure 4d-i; the dotted lines indicate hypothetical reconstruction based on proportion and chipping characteristics. The size of the eight measureable Morrow Mountain I points is: Length: range, 28-45 mm.; average, 38 mm. Width (at shoulder): range, 18-24 mm.; average, 23 mm. The ratio of blade width to length varies from 1:1.3 to 1:1.9, and averages 1:1.7. Total length and width of this sample is smaller than the Piedmont specimens, but blade proportions fall well within the range reported by Coe (1964: 37).

The Morrow Mountain II type is represented in this collection by the basal portions of three points. All of these have the narrow stem and developed shoulders characteristic of the type. One produced from tan quartzite had good pressure retouch, but two of green slate were poorly chipped and still exhibit rough edges of the laminar structure typical of slate. Although the current data are somewhat ambiguous, this type is presumed to occur later than Morrow Mountain I (Coe 1964: 37-43).

Savannah River points include one relatively complete gray quartzite (Figure 4a) and two fragmentary specimens of tan quartzite and green slate, (Figure 4b-c, respectively). The complete specimen was percussion chipped but shows secondary retouch along the lower

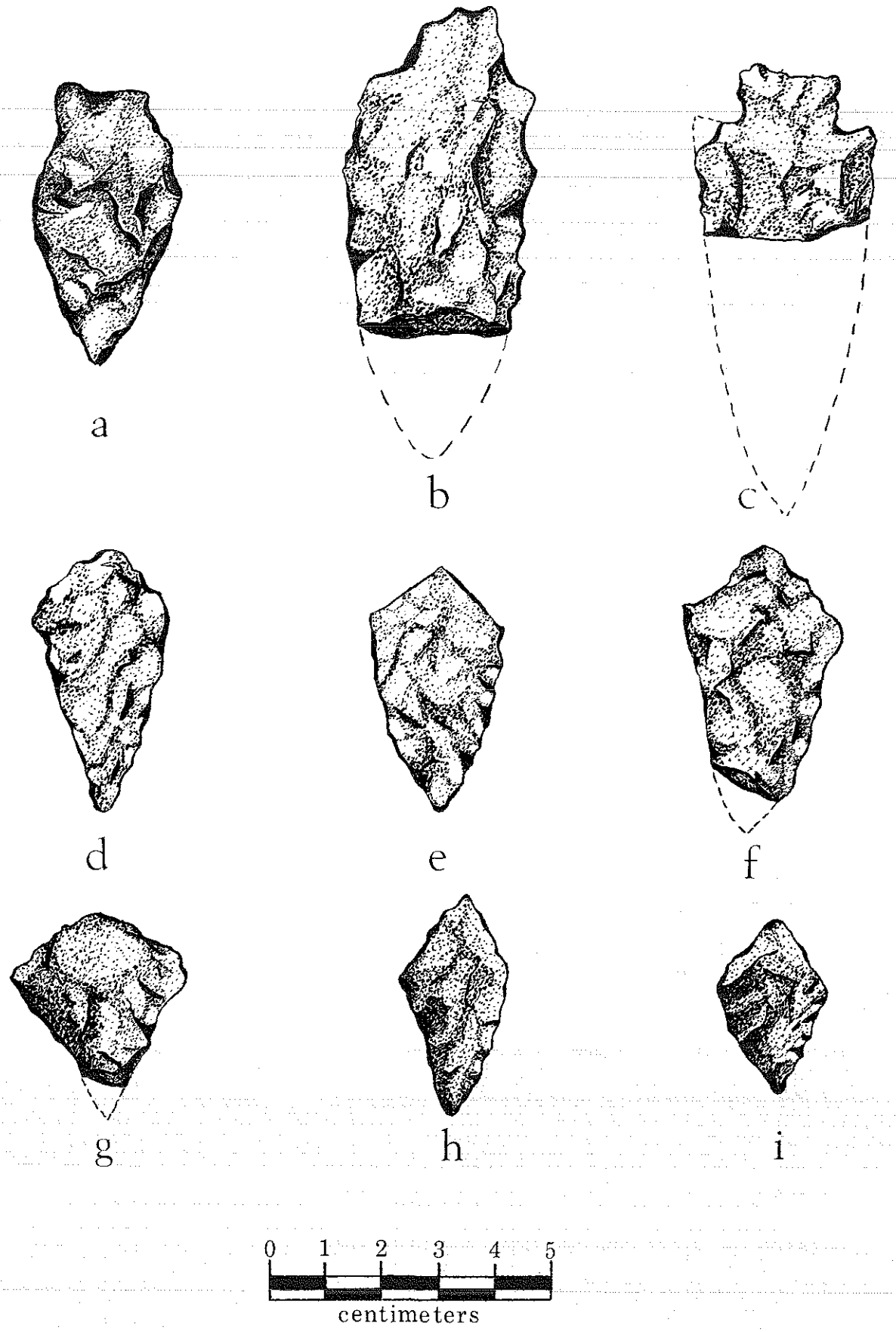


Figure 4. Projectile points from 31 Pq 2; Savannah River (a-c), and Morrow Mountain I (d-i). (actual size)

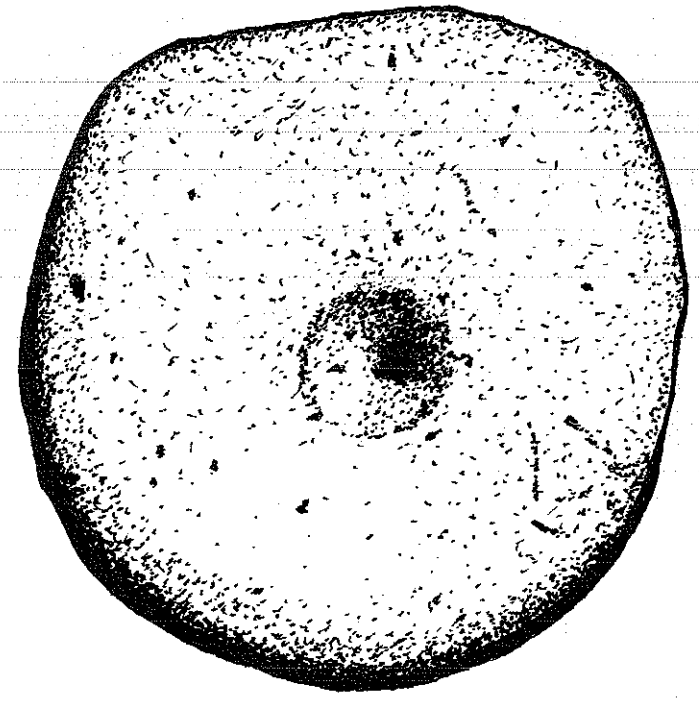
blade edges, possibly from re-sharpening. It measures 47 mm. in length and 27 mm. in shoulder width. The stem is straight with a slightly concave base, and the shoulders are assymetrical (the developed shoulder has been broken). The broken points both exhibit typical corner removal, developed shoulders, straight stems and slightly concave bases.

Blades: One complete and five fragmentary blades were reclaimed from 31 Pq 2. The complete specimen was made from gray quartzite, chipped secondarily into a roughly elliptical shape with narrow lenticular cross-section, and used extensively, producing considerable edge ware. Length and width of this specimen (Figure 5c) are 44 mm. and 22 mm., respectively.

Three of the blade fragments are quartzite; the others are white quartz. All show edge retouch characteristic of sharpened cutting tools.

Grinding stones: The grinding stone illustrated in Figure 5 in obverse (a) and side (b) views is typical of such artifacts at this site. It is a roughly circular disc (diameter, 85 mm.), the flat reverse side of which was well polished through use as a grinding implement. The edges show similar wear to a lesser degree. On the obverse side is a centrally located depression, or "pit", of approximately 20 mm. diameter and 5 mm. depth. The specimen is tan quartzite. Another complete quartzite grinding stone has similar attributes but retains the relatively amorphous shape of the original cobble and is larger (91 x 83 mm.).

Fragments of three other quartzite grinding stones were reclaimed, each possessing at least one polished "use" surface.



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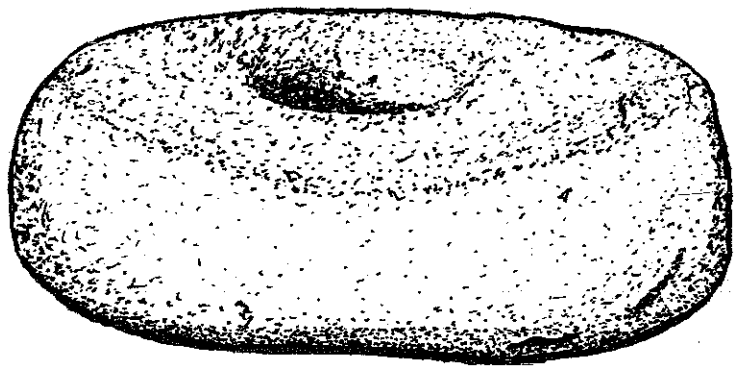

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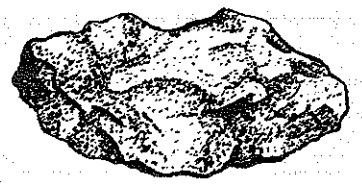

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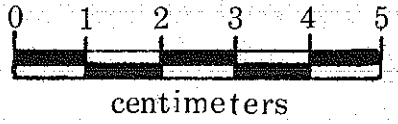

Figure 5. Pitted grinding stone, obverse (a) and side (b) views; quartzite blade (c). Both from 31 Pq 2. (actual size)

Scrapers: Three artifacts classified as scrapers came from the surface collection at 31 Pq 2. Two of these are trianguloid in shape with typical plano-convex working edges at their rounded ends. One, of gray/white flint, has been pressure retouched along all sides; the other, produced from rose quartz, is retouched only on the slightly rounded end. The third scraper is a generally oval-shaped chip of tan quartzite with secondary retouch along only one side.

Core: One core, from which considerable flakes had been struck, was originally a red quartz cobble.

Spalls: Seventy-four waste flakes, or spalls, resulting from stone tool production were reclaimed from 31 Pq 2 (71 flakes) and 31 Pq 3 (3 flakes). Analysis of the material produced the following classification: 50 quartzite, 14 quartz, 7 slate, and 3 rhyolite. Fourteen of the spalls had been modified for use by secondary retouch along one or more edges.

Based on the collected data, the High Ridge site (31 Pq 2 - 31 Pq 3) supported human occupation from 4500 B.C. to 1000 B.C. This period, the middle to late segments of the Archaic, was also the time of maximum occupation at 31 Pq 1; it is probable that these sites were occupied simultaneously.

Phases of the Archaic authenticated at High Ridge are Morrow Mountain (4500-3500 B.C.) and Savannah River (3000-1000 B.C.). This phase assignment is based on projectile points, thus only identifiable points were utilized; it is possible that the broken specimens may belong to other phases. The range of tool types at High Ridge argues for its classification as a seasonal hunting-gathering camp; the grinding stones,

blades and scrapers are indicative of this. Similarly, the considerable number of spalls remaining from tool production point to at least short periods of sedentariness on this site.

Old farm houses, presumably dating from the 19th century, still exist on sites 31 Pq 2 and 31 Pq 3. The houses, like the prehistoric camps before them, occupy the highest elevations on the ridge. At the time of construction, their location was dictated by a less efficient drainage system--precisely the same situation faced by the prehistoric inhabitants. Neither structure appears to be of significant historic or architectural value, and in any case they will not be affected by the proposed construction.

There will be no adverse impact on the High Ridge site (31 Pq 2 - 31 Pq 3) from the proposed channel improvement in the Main Lateral. This site occupies a position completely removed from the flood plain. No further historic or archaeological investigation is required.

31 Pq 4--Mansfield site.

The Mansfield site is located on the north side of the Main Lateral approximately 1600 feet east of the bridge carrying SR 1113 northward across the Main Lateral (Figure 1). It is an elevated sandy ridge adjacent to the northern margin of the Main Lateral flood plain on the property of Samuel T. Mansfield, and lies within a soil zone of Norfolk fine sandy loam.

Although no cultural material was found or collected on the site, the owner reported that he had recovered projectile points here. On the basis of this report the location has been entered in the files for reference and future re-survey.

No apparent disturbance of the site will ensue from the proposed channelization.

31 Pq 5--County line site.

31 Pq 5 is situated immediately east of the Chowan and Perquimans county line, northwest of the confluence of Lateral 10 and the Main Lateral. It is on property owned by P. E. Lane, who reported having collected projectile points here in the past. As was the case at 31 Pq 4, no materials could be found here by the survey team; the site has been recorded for future references. Soil of the ridge above the laterals is classified as Portsmouth fine sandy loam.

For archaeological purposes, a re-survey is recommended, but adverse impact by channelization will not occur.

CULTURAL-ENVIRONMENTAL SUMMARY

The Bear Swamp watershed apparently formed as a lagoon or shallow embayment during the Sangamon (3rd) Interglacial. Blocked on the west by ancient beach ridges and around its remaining perphery by lower, marine-deposited sand ridges, it evolved into a depressed swampy basin characterized by primarily closed drainage with the lowering of sea level. This status was probably constant through the Wisconsin Glaciation, at the end of which (ca. 8000 B.C.) Bear Swamp entered recent times without significant changes until modern times. The changes have been stimulated by drainage; not the natural drainage through the two small, low-gradient creeks, which has been extremely inefficient, but through the cultural practice of excavated ditches and channels, and the constant clearing of these as they become filled

with sediment and debris. This culturally produced drainage has permitted both increasing agriculture and residence on the higher soil elevations in the basin, but has not affected the greater extent of Bear Swamp. Virgin forest has been reported as existing in the swamp in relatively modern times (Hearn 1907: 6).

Human utilization of Bear Swamp prior to the end of the Pleistocene may have occurred, but no such evidence was found. The earliest known occupation began during the Archaic Period (8000-1000 B.C.), a time of man's adjustment to changing climate and environment following the final Wisconsin glacial phase. Human subsistence patterns of the Archaic appear to have been primarily hunting, fishing, and collecting of wild vegetable foods (including nuts, berries, seeds, bulbs, and fruits). The settlement pattern was one of temporary camps of small bands located in strategic parts of the territorial range to take advantage of seasonal food resources. The Archaic was the time of maximum use of Bear Swamp, based on the current evidence. The area would have been completely forested during that period, supporting both swamp forest and the upland climax types on the higher, well-drained ridges. Such an environment would have been rich in both faunal and floral resources.

Somewhere around 1000 B.C., domesticated plants were introduced to the South Atlantic region, but is is likely that knowledge of these domesticates belonging to the corn, bean, and squash families, reached eastern North Carolina somewhat later. Current evidence on this point is unclear. This period of agricultural subsistence is known as the Woodland, a time of increasing sedentariness and larger populations

required of, and resulting from, agriculture. The Woodland period endured until the time of European colonization. Ceramic containers were in use and their broken fragments are a diagnostic remain usually found scattered about the camp and village areas of this period. From the soil classifications, one would expect major human use of Bear Swamp during this period, but the evidence indicates little if any Woodland occupation.

The prehistoric sites located by our survey in the Bear Swamp watershed project area are adjacent to the Main Lateral. The Main Lateral and its dendritic tributary system form a generally east-west drainage of the northern section of Bear Swamp, and then flows north into Goodwin Creek (Figure 1). The western part of this system, from the junction of SR 1113 and SR 1110 toward Tyner, drains an island-like zone of Portsmouth fine sandy loam. From that junction to the east and north, the drainage system is bounded primarily by Norfolk fine sandy loam with areas of the Portsmouth type on its periphery. All of the prehistoric sites, and at least two observable earlier historic farmstead sites, are located on the high, undulating ridges adjacent to the Main Lateral in those two soil zones. It is also these two soil zones which have been cleared for agricultural and residential purposes in modern times, and which the Soil Conservation Service channel modification will benefit.

Sites 31 Pq 1, 31 Pq 2, and possibly 31 Pq 4 and 31 Pq 5 were occupied during the Archaic Period. Only negative data exist for 31 Pq 4 and 31 Pq 5 but the absence of ceramics and the owners statements

of "collecting projectile points" usually imply usage during this period.

31 Pq 1 was first occupied during the Kirk phase (6500-5000 B.C.) of the Archaic, and again from 4500 B.C., in the Morrow Mountain phase, through the Savannah River phase ending around 1000 B.C. A single sherd from the site may be indicative of minor use during Woodland times. The High Ridge site, 31 Pq 2 - 31 Pq 3, experienced its first authenticated occupation during the Morrow Mountain phase and was thereafter utilized until 1000 B.C. This site was not re-occupied until modern times (19th century) when farm houses were built.

Only one site, 31 Co 6, possibly supported a village of the Woodland period post-dating 1000 B.C. It is unfortunate that the site has been destroyed and we have only hearsay evidence of this.

Based on the project-limited survey, an hypothetical model of the relationship of human settlement patterns to the Bear Swamp environment may be proposed. The model will require testing by a thorough archaeological investigation of the Bear Swamp locality, but the major points may be summarized as follows:

1. During the Archaic period, Bear Swamp was utilized on a seasonal basis for hunting and gathering activities. Small seasonal camps (such as 31 Pq 1, 31 Pq 2-3) will always be located on higher sandy ridges adjacent to larger stream channels. Elevation of land surface rather than soil fertility was the major selective factor in site location; location was also dictated by travel accessibility, either by boat along the small streams, or by foot along the high bank

ridges. The "home base" of such Archaic groups will be found toward the mouth areas of streams along which the camps are located. Thus, the "home area" of peoples inhabiting the recorded sites above probably lies along the Perquimans River. The constant food requirements of the Archaic period subsistence base necessitate maximum environmental utilization.

2. Sites of the Woodland period, if found at all in such environments as Bear Swamp, will be small temporary hunting camps--not agricultural villages. This is primarily related to the drainage factor; although the soil types are excellent for agriculture, and this was a major subsistence activity during the Woodland, the natural drainage of Bear Swamp was not sufficient to permit constant agriculture. The higher ridges were available, of course, but the following alternatives must be considered:

(a) There was sufficient soil of similar types available on the higher elevations surrounding Bear Swamp to support the suspected level of Woodland populations, and

(b) access into the swamp was difficult at best. Bear Swamp would have been utilized for hunting during this period, but entry and exit would normally have occurred on the immediate periphery; only rare incursions along the streams into the interior (for example, the single sherd at 31 Pq 1) would be undertaken.

3. A similar situation applies in the Historic period; not until late Colonial or early American times did population pressure become sufficient to push farmers into Bear Swamp. When this occurred, drainage became immediately necessary and labor was available to dig the ditches at least on a modest scale. It is perhaps not strange that early in this century farm labor commanded a higher wage in Bear

Swamp than elsewhere in the region (Hearn 1907: 9). The exact date of modern incursion into Bear Swamp should be researched; the early sites of this period will correlate to a high degree with prehistoric sites due primarily to selection of higher, well-drained elevations and secondarily to highly productive soil types (for example, the historic farmsteads at 31 Pq 2-31 Pq 3).

This model may apply not only to Bear Swamp, but similar environmental situations elsewhere in the Coast and Coastal Plain.

CONCLUSIONS AND RECOMMENDATIONS

Bear Swamp is an excellent example of cultural modification of a natural environment to meet the needs of expanding population. It was utilized without modification during the Archaic to collect natural products, ignored during the agricultural Woodland period because lower population levels could subsist upon better drained agricultural land outside the swamp, and was finally penetrated by sedentary groups in historic times when production demands and population increases required it.

The channel modification proposed by the Soil Conservation Service will have no adverse impact on any known archaeological or historical sites or materials in the project area of Bear Swamp watershed, and no further investigation is required for this project.

Further archaeological research should be undertaken to test the settlement model presented above, but this problem is beyond the scope of the current project.

ACKNOWLEDGMENTS

Assistance provided by various landowners and individuals in the Bear Swamp locality is gratefully acknowledged; their contributions of information about sites and terrain, and such aid as the extraction of the project vehicle from ditches, made our task easier.

Special thanks are due Mr. Archie Lane for allowing us to inspect his collection of artifacts from 31 Pq 1, thereby adding a cultural dimension to that site which would otherwise have been lacking.

The field crew for this project was Ronald W. Anthony and I. R. Swain, Jr., and artifact illustrations in the report were done by Susan L. Moye, all anthropology students at East Carolina University, Greenville, North Carolina.

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AN ARCHAEOLOGICAL SURVEY OF THE JOYCE CREEK WATERSHED, CAMDEN COUNTY, NORTH CAROLINA

Prepared for The
Wilmington District
Corps of Engineers, U. S. Army
and The
Archaeology Section
Division of Archives and History
North Carolina Department of Cultural Resources

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May, 1976

AN ARCHAEOLOGICAL SURVEY OF THE JOYCE CREEK WATERSHED, CAMDEN COUNTY NORTH CAROLINA

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ABSTRACT

An archaeological-historical study of the Joyce Creek Watershed, Camden County, North Carolina, was accomplished to determine the impact of proposed channel improvement upon archaeological and historical resources. The project, proposed by the U. S. Army Corps of Engineers, Wilmington District, includes approximately five miles of channel widening to alleviate flooding along Joyce Creek and two of its tributaries, Cypress and Mill Runs.

Eight sites were recorded in the archaeological-historical study, ranging in age from 8000 BC to AD 1820. Most of these sites, the first recorded in Camden County, had been previously destroyed by agricultural activities. All of the sites are situated on the upland margins of the Joyce Creek basin and will not be impacted by the proposed channel improvements.

INTRODUCTION

The Joyce Creek Watershed is located in Camden County, in the Coastal Plain of northeastern North Carolina. The creek and its tributaries drain the low, swampy interior of a peninsula of sandy loams and clays extending northward into the Dismal Swamp from South Mills and Pierceville (Figure 1). The Wilmington District, U. S. Army Corps of Engineers has proposed channel modification and improvement for Joyce Creek and its tributaries to alleviate a persistent flooding problem within the basin. A required preliminary to the project was determination of possible impact of the proposed improvements upon archaeological and historical resources. An archaeological-historical study was contracted by the Corps to the Archaeology Section, North Carolina Division of Archives and History which, in turn, subcontracted

it to the Archaeological Research Laboratory, East Carolina University. The project was directed by the senior author and the junior author supervised the field work. Results of the study are reported here in fulfillment of the subcontract.

RESEARCH METHODOLOGY

The study began with a review of the project maps and description provided by the Corps of Engineers. Details of the project and its spatial extent were plotted over standard topographic and soil maps for the Joyce Creek area, and access checked on the current road maps. Standard maps for the study were the USGS South Mills quadrangle (15' series, 1946, which lacks contouring), the soil map for Camden County (1928), current N. C. Department of Transportation highway map for Camden County, and the Corps of Engineers project map for the Joyce Creek basin.

A search of the North Carolina Archaeological Survey file for Camden County produced the fact that no prehistoric or early historic sites had been recorded for the county. Similarly, no sites currently on the National Register of Historic Places were located in the project area.

The field study, accomplished in November, 1974, included a careful on-foot search of the basin margins and selected sections of the flood plain. In a small, stable mature stream basin of this type, sites could be expected on remnant levees within the floodplain, but the majority of prehistoric and early historic sites would exist on the margins. Where such sites have been eroded by channel cutting, it is far more feasible to identify their upland sections and then inspect the floodplain. The ground survey covered the entire project area.

When sites were located, a systematic measurement and collection of the site area was made, environmental factors recorded, and site condition

and impact status entered on the site record. Some sites were photographed, tests of stratigraphy accomplished, and other necessary observations recorded.

Upon completion of the field portion of the study notes and photos were compiled, materials processed and analyzed, and the final report prepared. Site forms were filed in the North Carolina Archaeological Survey, and all specimens cataloged into the permanent collections of the Archaeological Research Laboratory, East Carolina University, where they are available for further study along with the site documents.

PROJECT DESCRIPTION AND ENVIRONMENT

Cypress and Mill Runs flow southward to a confluence where these tributary streams form Joyce Creek. From there Joyce Creek flows southward, then west toward the Dismal Swamp Canal, which it joins just below the Town of South Mills. The creek emptied directly into the Pasquotank River prior to construction of the canal, draining the low interior of a peninsula-like ridge of sandy and loamy soils extending northward into the Dismal Swamp. The ridge is the northernmost high ground in Camden County; it is part of the Pamlico formation (Richard 1950:39) which consists of marine sediments deposited during the Sangamon Interglacial of the Pleistocene epoch. The Joyce Creek basin formed as sea level lowered from its 25-feet higher (than present) stand during the Sangamon. The basin is nearly surrounded by ridges of well-drained soils of the Elkton, Moyock, Norfolk and Portsmouth Series which form barriers between it, the Dismal Swamp (to the north and east) and the Pasquotank River basin (to the west). These ridges grade downward to poorly drained silts, loams and clays adjacent to the swamp and the interior basin. Since the end of

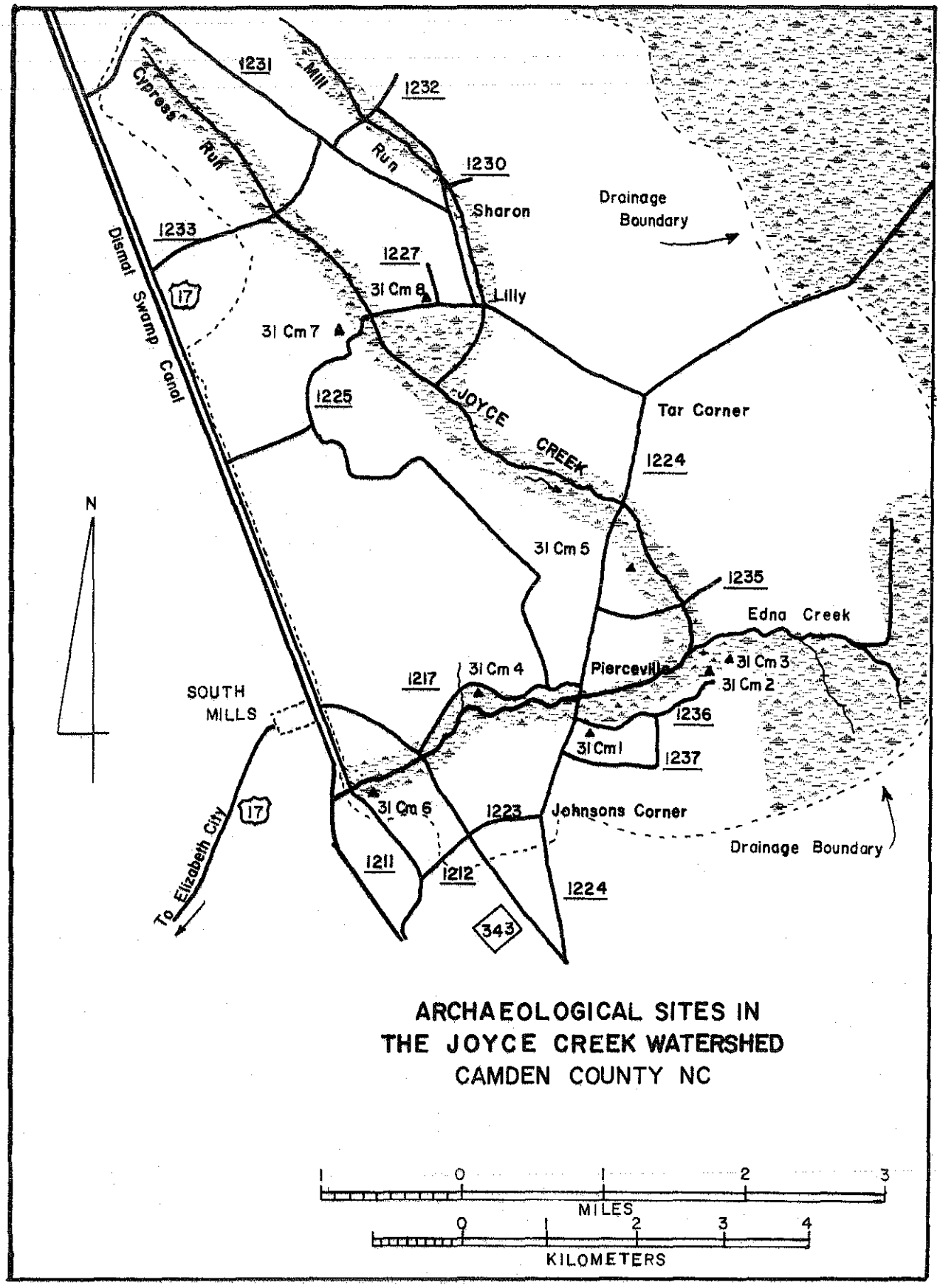

Figure 1. Site distribution in the Joyce Creek Watershed.

the Pleistocene a more-or-less continual rise in sea level has resulted in drowning older stream channels and creating estuaries (Riggs and O'Connor 1975). The Albemarle Sound is an example of a major trunk estuary, and the Pasquotank River one of its partially drowned lateral estuaries. As sea level rises, the drowning effect will reach further upstream in the Coastal Plain laterals and their tributaries. The gradient of Joyce Creek, tributary to the Pasquotank, continually decreases as sea level rises, and has created the problem of low ground flooding.

The channel improvements proposed by the Corps of Engineers are designed to alleviate this problem, but these measures can provide only temporary relief in view of continued sea level rise. The improvements consist of excavations and dredging of the Joyce Creek channel to a 40-feet bottom width from the Dismal Swamp canal to the crossing of N. C. SR 1224; from SR 1224 to the confluence of Cypress and Mill Runs, the improved bottom width will be 30 feet. Each of the above tributary runs will have its channel bottom widened to 10 feet. The proposed improvements are not of a type considered highly detrimental to cultural resources.

RESULTS OF THE STUDY

Eight archaeological sites were located and recorded during the survey of the Joyce Creek watershed. The sites, ranging in age from 8000 BC to AD 1820, are all situated on terraces above the Joyce Creek and tributary floodplains and will not be adversely affected by proposed channel improvements. These are the first sites recorded in Camden County, no previous survey having ever been done.

Location of the sites is described below and shown in Figure 1. Community type has been assigned to each site component where possible based

on culture content, site dimensions and environment; many of the type assignments are speculative due to paucity of data.

Definition of components relied on identification of artifact types diagnostic of particular cultural-temporal complexes. Analysis of artifacts is based on the following, where applicable: projectile points and other selected stone tool types were taken from Coe (1964); prehistoric ceramics from Haag (1958), and current research data in the E.C.U. Archaeological Research Laboratory; and historic glass, ceramics and pipes from Hume (1970).

Soil typology follows that of Perkins,et al (1928).

31 Cm 1

This site is situated on the south bank of Joyce Creek, near the intersection of SR 1237 with SR 1224, at 36° 29' 39" N latitude and 76° 17' 36" W longitude. The site area measures approvimately 20 by 70 meters on a ridge of Moyock very fine sandy loam elevated 1.5 to 2 meters above the Joyce Creek floodplain. The crest of the ridge, parallel to the floodplain, had been removed to facilitate the roadbed of SR 1237; remaining sections of the site were cultivated and planted with corn at the time of the survey.

Surface Collection

Prehistoric Specimens:

Projectile points: 2; a Morrow Mountain II (Figure 2a), and an early Woodland triangular type (Figure 2c). Both are quartzite.

Blades: 2 fragments of quartzite chipped stone blades; one is a triangular blade; the other appears to have a single side chipped for a cutting edge.

Pitted stone: one quartzite cobble, rectangular in shape, with smoothed edges and shallow depressions on both flat sides (Figure 2b). Such specimens have traditionally been called "nutting stones", but this function is argumentive.

Spalls: 21 stone flakes remaining from the tool production processes include quartzite, quartz, and slate in decreasing frequency.

Ceramics: a single sand tempered, fabric impressed sherd was collected from the site.

Historic Specimens:

Pipes: 2, one is a complete bowl of a locally produced orange clay pipe; the other is a small bowl fragment from a white kaolin pipe.

Ceramics: 11 sherds

6 - pearlware, white glaze.

1 - pearlware platter, blue transfer design.

1 - pearlware, green and brown floral design under glaze.

3 - gray glaze, tan interior, storage vessels.

Brick: 5 fragments of brick with a blue-gray glaze. (Unglazed fragments were observed on the site, but not collected.)

Shell: 8 fragments of follized marine bivalue.

Site Sequence

The site was occupied at least during the Morrow Mountain phase of the Archaic Period, again during the early phases of the Woodland Period, and during the Federal Period of historic times. The first two occupations were probably temporary camp types, while the third was a farmstead, probably with a brick house. The glazed bricks were typically used in

brick bond patterns throughout northeastern North Carolina during the Colonial and Federal periods (Johnston and Waterman 1947).

Recommendations

Stratigraphy of the site has been destroyed by road construction and agricultural activities and no data remain in context. The site is outside the floodplain and will not be impacted by channel improvements. Clearance from impact is recommended.

31 Cm 2

The site is situated on the south bank of Joyce Creek about one mile northeast of 31 Cm 1 at 36° 26' 59" N latitude and 76° 16' 24" W longitude. The one-mile stretch along the floodplain margin between the two sites consists of a ridge of well-drained Moyock and Norfolk soils. Occasional spalls and historic sherds occurred along this ridge, indicating occasional use or accidental scatter. 31 Cm 2 is a 25-meter diameter area of artifact concentration in a zone of Moyock fine sandy loam elevated 1.5 meters above Joyce Creek. The site area was planted with corn, and modern farm buildings are constructed on its southeastern edge.

Surface Collection

Anvil: one large, flat pebble with one of its faces roughened by blows in two irregularly shaped areas.

Core: one granite core with a few flakes removed.

Spalls: 5 stone flakes (quartzite, quartz, flint).

Shell: 3 fragments of fossilized marine bivalves.

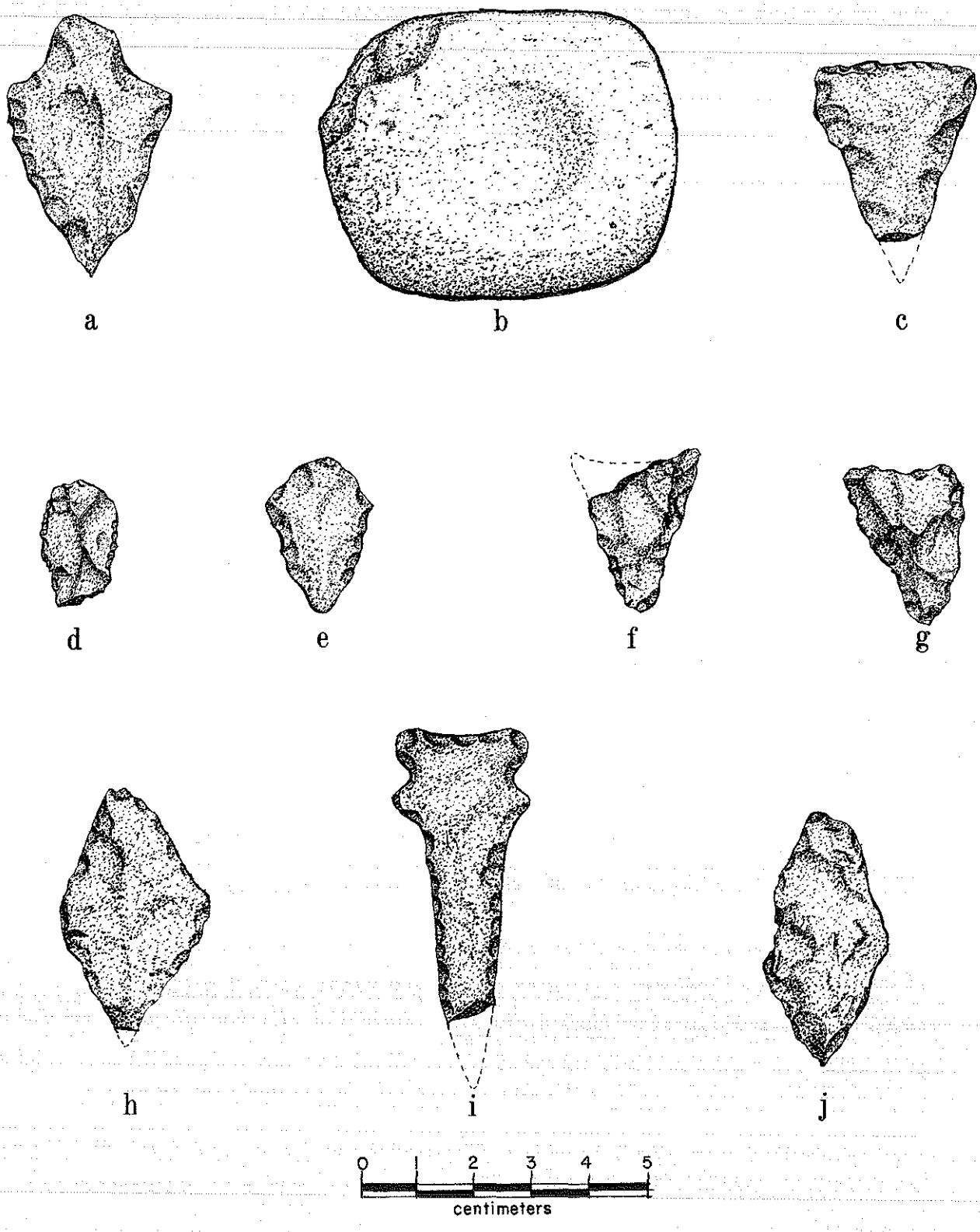

Figure 2. Artifacts from 31 Cm 1 (a-c) and 31 Cm 8 (d-j). Projectile points (a,c,e-h), pitted stone (b), scraper (d), and drills (i-j). All actual size.

Site Sequence

The site may have been an Archaic camp or workshop; this is based on lack of ceramics. However, no artifacts diagnostic of a particular phase were recovered. The fossil shell probably derives from the historic agricultural practice of using shell for liming fields.

Recommendations

No cultural material remains intact in the site, and it lies outside the proposed channel modification area. Clearance is recommended.

31 Cm 3

Approximately 200 meters northeast of 31 Cm 2, south of Edna Creek and east of its confluence with Joyce Creek, lies 31 Cm 3 at 36° 27' 06" N latitude and 76° 16' 36" W longitude. The site covers an area 30 meters in diameter in a zone of Moyock fine sandy loam about one meter above the floodplain. A small family cemetery lies between the site and the edge of the floodplain forest.

Surface Collection

Projectile point blank: A percussion-chipped, lanceolate pre-form with rudimentary chipping of the shoulder area is obviously a point in the production stage.

Blade: An edge fragment of a grey quartzite blade with fine pressure flake removal along the remaining edge.

Hammerstones: 2 quartzite pebbles, each with one or more battered edges.

Fire-cracked stone: One fragment of fire-cracked quartz is indicative of hearth use.

Site Sequence

31 Cm 3 was either a small temporary camp or a workshop area, and probably was occupied during the Archaic Period. More modern use has been agricultural and the family cemetery probably relates to a nearby historic farmstead.

Recommendations

Agricultural activities have destroyed this small site, and the proposed channel modifications will not intrude upon it. Clearance is recommended.

31 Cm 4

This site is located on the rolling surface of a Norfolk loamy fine sand ridge on the north bank of Joyce Creek. It is one mile west of Pierceville at map coordinates 36° 26' 51" N latitude and 76° 18' 19" W longitude. A corn crop had been harvested from the field containing the site prior to the survey. Artifacts were distributed over an area 15 by 25 meters at an elevation of about one meter above the floodplain.

Surface Collection

Prehistoric Specimens:

Blades: 3 fragments of quartzite blades, 2 from ovate and 1 from a trianguloid form.

Scraper: 1 quartz scraper produced from a flake by pressure chipping on one edge.

Spalls: 3 waste flakes.

Ceramics: 1 small sherd, too weathered for identification.

Historic Specimens:

Pipe: One stem fragment of a kaolin pipe; the stem hole is 6/64 inch in diameter.

Ceramics: One small, unidentifiable sherd.

Shell: A fossil shell fragment remaining from liming of the field.

Site Sequence

Based on the small sample, the site was probably occupied in both the Archaic and Woodland Periods. The historic pipe fragment may be accidental surface scatter from agricultural or related activities. A small camp is suggested as the site type.

Recommendations

No contextual material remains in the site, and it will not be affected by channel improvements. Clearance from impact is recommended.

31 Cm 5

One mile northeast of Pierceville is a small zone of Norfolk loamy fine sand within the broad terrace of Moyock soils on the western side of Joyce Creek. 31 Cm 5 covers an area 30 by 50 meters in extent on the Norfolk soil which is elevated one meter above the floodplain. The field in which the site is located has long been cultivated; the 1974 crop was corn. A small cemetery is located immediately northwest of the site. Site coordinates are 36° 27' 32" N latitude and 76° 17' 22" W longitude.

Surface Collection

Prehistoric Specimens:

Projectile pointe: 3 Morrow Mountain II points, all of quartzite,

were recovered.

Blades: 2

1 - Laurel leaf shape, produced from black flint.

1 - Amorphous, produced from a quartzite flake.

Spalls: 35 stone flakes from tool production processes were recovered; quartz, quartzite and flint, in order of decreasing popularity, are represented.

Fire-cracked stone: 2 small fragments.

Ceramics: A single, small sand tempered sherd with eroded surface.

Historic Specimens:

Pipe: One bowl fragment of a kaolin pipe.

Brick: 2 fragments of blue-gray glazed brick identical to those collected at 31 Cm 1.

Ceramics: 3 sherds

2 - shell edged pearlware (1 blue and 1 green rim).

1 - "marbled" ware, brown body with a gray, black and white swirl.

Site Sequence

The site was occupied during the Morrow Mountain phase of the Archaic Period, sometime during the Woodland Period, and finally as a Colonial or Federal period farmstead before modern agricultural use. The Archaic and Woodland components were probably temporary camps.

Recommendations

No indication of intact cultural remains was found; it is probable that context of all components has been destroyed except the cemetery for the Colonial or Federal farmstead. The site lies outside the floodplain and

is cleared of impact from channel modification.

31 Cm 6

31 Cm 6 is located on a relatively high knoll in a zone of Moyock very fine sandy loam south of Joyce Creek and just east of its confluence with the Dismal Swamp Canal. The site is about .75 mile south of South Mills at 36° 26' 14" N latitude and 79° 19' 14" W longitude. This terrace of Moyock soil lies at the edge of the Dismal Swamp basin and is elevated approximately 2 meters above the floodplain. The site has been cultivated for many years, and the remains of the previous season's corn crop littered the surface. This factor in conjunction with a dense ground cover of weeds made collection and determination of site boundaries difficult. Specimens were collected from an area approximately 70 meters in diameter.

Surface Collection

Prehistoric Specimens:

Spalls: 3 quartzite waste flakes.

Fire-cracked stone: 1 fragment.

Ceramics: 11 sherds

3 - fabric impressed, sand tempered

8 - sand-tempered, unidentified surface finish.

Historic Specimens:

Glass: 1 base fragment of a green brandy or wine bottle, heavily patinated.

Site Sequence

The site appears to have had a Woodland Period farmstead or small camp component. The historic glass bottle is probably representative of

secondary scatter.

Recommendations

The site should be re-collected for archaeological purposes but appears to have no intact material remaining. It will not be affected by channel modifications and clearance is recommended.

31 Cm 7

This site is on the west side of Cypress Run in the northwestern section of the watershed. It lies in a cultivated field north of SR 1225 at 36° 29' 04" N latitude and 76° 19' 24" W longitude. Material was collected from an area 75 meters in diameter on a relatively flat terrace of Moyock very fine sandy loam. A family cemetery is located at the western margin of the site.

Mr. Clarence Raper, the site owner, stated that the site had been frequently visited by a group of relic collectors from Elizabeth City. Results of their visits are reflected in our sample, which contains a relatively broad range of artifact types except projectile points; it is only the latter class of artifact for which the local collectors search. Mr. Raper donated two points he had recently collected to our survey.

Surface Collection

Projectile points: 2

1 - Morrow Mountain II, quartzite (Figure 3a)

1 - Triangular point, quartzite, Woodland (Figure 3b)

Scrapers: 3 of these artifacts, all produced from green and white flints, can be classified as end scrapers similar to Type I described

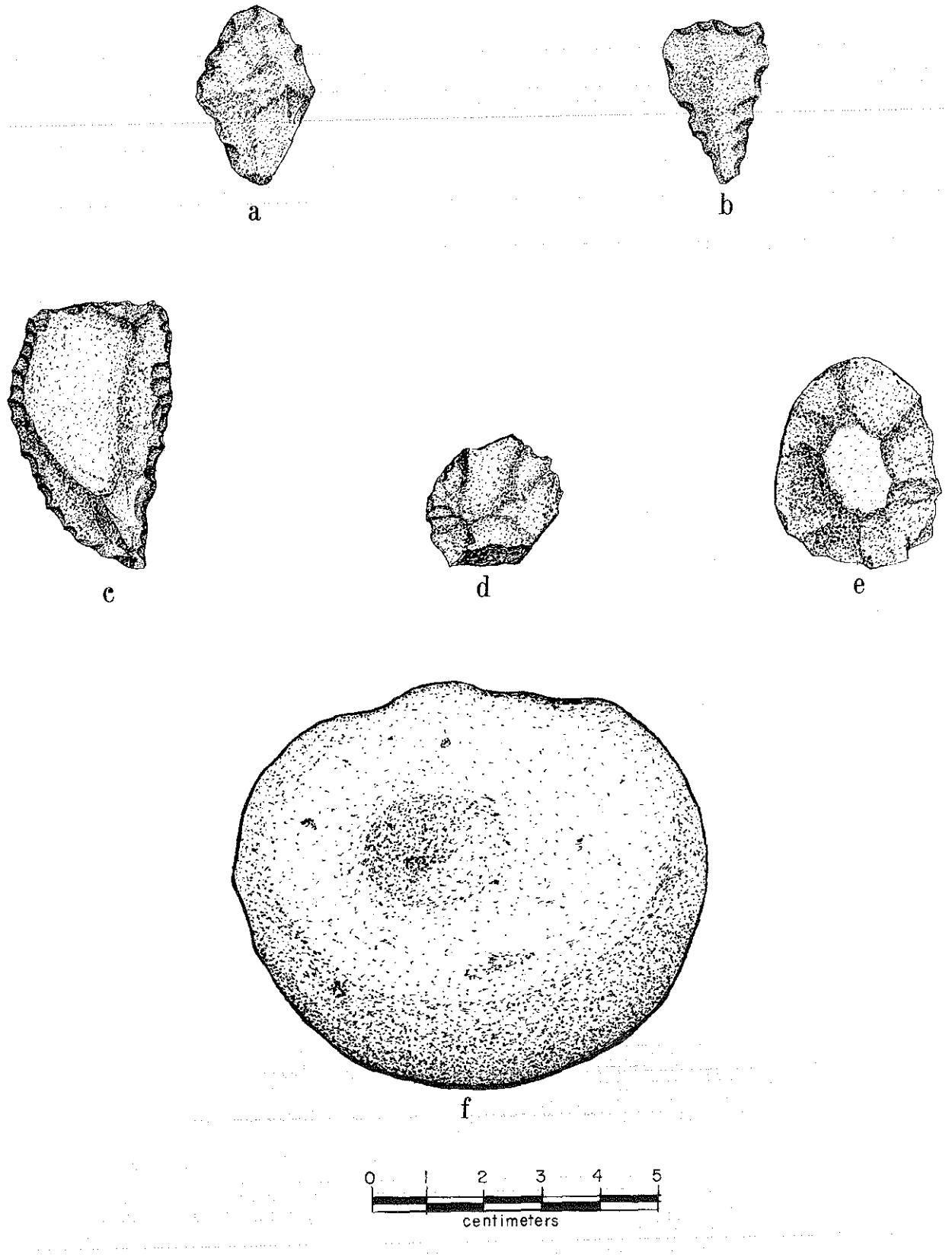

Figure 3. Artifacts from 31 Cm 7. Morrow Mountain (a) and Woodland (b) projectile points, end scrapers (c-d), core (e), and pitted stone (f). All actual size.

as belonging in the early Archaic Period at the Hardaway site (Coe 1964: 73-74). Two of the scrapers are illustrated in Figure 3c-d.

Blades: 2 trianguloid blades of quartzite.

Pitted stones: 4 of these, similar to the one from 31 Cm 1, were recovered. All have shallow, circular depressions abraded into one or both flat surfaces. One of these is illustrated in Figure 3f.

Grinding stones: 3, all of quartzite, with one or more surfaces polished by abrasive use.

Cores: 2 quartzite pebble cores. One of these exhibits typical initial flaking of the periphery (Figure 3e), while the other had been extensively used.

Hammerstones: 3 pebble hammers with one or more battered edges.

Spalls: 42 stone flakes, primarily quartzite with a few slate and granite.

Fire-cracked stone: 5 fragments.

Ceramics: 14 sherds, all extensively weathered.

10 Sand tempered - 1 cord marked surface finish
1 fabric impressed surface finish
8 unidentifiable surface finish

2 grit tempered - unidentifiable surface finish

1 shell tempered - unidentifiable surface finish

Site Sequence

Occupation of the site occurred during the early and middle Archaic Period, probably as a seasonal or base camp. Woodland components may have been either camps or farmsteads. Historic use of the site appears to have been only for agricultural purposes.

Recommendations

31 Cm 7 should be re-collected for archaeological purposes but will not be impacted by channel modification in Cypress Run.

31 Cm 8

31 Cm 8 is located on an east-west ridge of Norfolk loamy fine sand lying between Cypress and Mill Runs. It is .5 mile east of 31 Cm 7 and is bisected by SR 1227. Map coordinates for the site are 36° 29' 16" N latitude and 76° 17' 36" W longitude.

The ridge has an elevation of 4 meters above the silty clay loam of the floodplain immediately south, and it is obvious that continued re-occupation of the site was related to the favorable elevation, the soil type and the location at an ecotone boundary. The site has a long history of cultivation and was planted with winter wheat at the time of our survey, but sufficient visibility existed to determine a site area of 50 by 100 meters.

Surface Collection

Prehistoric Specimens:

Projectile points: 7 points and fragments.

- 1 - Palmer corner-notched base fragment, flint.
- 1 - Morrow Mountain I, quartz (Figure 2e).
- 1 - Morrow Mountain II, quartzite (Figure 2h).
- 3 - unfinished Woodland Period triangular points. 2 are illustrated (Figure 2f-g).
- 1 - mid-section fragment of a stemmed point.

Drills: 2 specimens.

- 1 - drill with Palmer base, quartzite (Figure 2i).

1 - contracting-base, slate (Figure 2j).

Scrapers: 5 specimens, all produced from flint.

1 - "turtle-back" scraper

1 - side scraper

3 - scrapers produced by pressure flaking one edge of a waste flake.

Blades: 6 fragments of blades, all bifacially chipped.

Pitted stones: 2 quartzite pebbles with the characteristic abraded depression on one surface.

Hammerstones: 2 quartzite pebbles with battered edges.

Cores: 3 quartz cores, each with extensive flake removal scars.

Spalls: 167 flakes discarded after tool production. Frequency distribution from highest to lowest includes quartzite, flint, quartz and slate.

Fire-cracked stone: 5 fragments.

Stone vessels: 5 sherds from steatite vessels were reclaimed; 4 are body sherds and the fifth is a rim sherd with a lug handle.

Ceramics: 52 sherds, all extensively weathered.

28 sand tempered - 1 net impressed surface finish
3 fabric impressed surface finish
1 plain (no surface finish)
23 unidentifiable surface finish

11 grit tempered - 1 fabric impressed surface finish
1 plain (no surface finish)
9 unidentifiable surface finish

1 clay tempered - unidentifiable surface finish

12 shell tempered - unidentifiable surface finish

Historic Specimens:

Pipes: 5 fragments of white kaolin clay pipes.

Three stem fragments have hole diameters of 3/64", 4/64", and 5/64" which indicate a time range from AD 1710-1800. Two bowl fragments are too small to classify.

Bricks: 6 fragments. Two of these have a blue-gray glaze similar to the specimens from 31 Cm 1 and 31 Cm 5; the other fragments are unglazed.

Ceramics: 3 sherds.

1 - gray Rhenish stoneware with cobalt blue.

1 - creamware base sherd.

1 - gray saltglaze storage vessel sherd.

Shell: 5 fragments of fossilized marine bivalves.

Site Sequence

This site appears to have components representative of all phases of the Archaic and Woodland periods, during which it must have first been a seasonal base camp and later a farmstead or small village. In early historic times it was obviously a farmstead.

Recommendations

For archaeological purposes the site should be re-collected and test excavations opened to determine the existence of stratified earlier deposits. The site will not be impacted by channel improvements and clearance is recommended.

SUMMARY

The eight sites recorded in this study have components ranging in age from ca. 8000 BC to AD 1820, and all have been cultivated in modern times up to the present. The site components are discussed below in their cultural-temporal alignment from earliest to latest.

Paleo-Indian Period, 15000-8000 BC

No sites of this period were recorded by the survey, with the possible exception of 31 Cm 7; the flint scrapers reclaimed there fit equally well into late Paleo-Indian phases and the succeeding Archaic. Lack of other diagnostic data prohibits a firm assignment.

Archaic Period, 8000-1000 BC

Two sites, 31 Cm 7 and 8, were occupied during the entire Archaic Period, and five others have components primarily of Middle Archaic age (ca. 5000-4000 BC).

Woodland Period, 1000 BC-AD 1650

31 Cm 1, 4, 5 and 6 had small components probably assignable to early and middle Woodland times (1000 BC-AD 700). Two sites, 31 Cm 7 and 8, appear to have been continuously occupied during the period.

Colonial Period, AD 1650-1776

Three sites, 31 Cm 1, 5 and 8, produced evidence of brick house structures and other artifacts indicative of Colonial Period farmsteads, or "plantations". The artifact types from all three sites are assignable to the later part of this period as well as the next.

Federal Period, AD 1776-1820

Occupation of the three sites listed above continued into this period. Discontinuation of residence use and conversion of the site to agricultural areas is not documented, but probably occurred after the Federal Period. Historic family cemeteries exist near two other sites, 31 Cm 3 and 7, indicating proximity of other farmsteads of this and later periods.

Only two sites, 31 Cm 7 and 8, can be considered "large" sites with any stability of habitation for extended periods of time. The components on all other sites appear to have been temporary camps located to take advantage of floral and faunal resources. In the Archaic, the two sites above probably served as seasonal base camps for a band-size population, while the other sites were temporary foraging camps. Woodland use of 31 Cm 7 may have been as a foraging camp, but 31 Cm 8 appears to have been a small seasonal village or a large farmstead in late Woodland times. The Colonial and Federal period occupations were small, extended family farmsteads.

Selection of site location in the Joyce Creek Watershed throughout prehistoric and early historic times has favored the higher elevations of soils belonging to the well-drained Moyock and Norfolk series situated above and adjacent to the Joyce Creek and its tributary floodplains. Site selection during Archaic and up to the middle Woodland period was probably based on elevation of the land and relationship to ecotone boundary. These factors provided dry living conditions and easy access to both upland, floodplain and stream food resources. In the late Woodland, Colonial and Federal periods, soil type was an added selective factor. For agricultural purposes, the soil of the Moyock and Norfolk series were highly productive and well-drained. Hunting and fishing, and food-gathering remained important

during these periods.

The settlement pattern in the Joyce Creek watershed correlates with those studied in other Coastal Plain basins of comparable size and flow. The pattern is similar in many respects to that of the Bear Swamp Watershed (Phelps 1975), a comparable environment in Chowan and Perquimans Counties.

Age and distribution of the sites indicates a stability of the margins of the Joyce Creek basin since at least 8000 BC. With continued rise in sea level and eventual drowning of this lateral stream, some time in the future the area will no longer be available for human use. The proposed flood control measures offer temporary relief of this situation and do not affect the present site distribution.

RECOMMENDATIONS

None of the eight archaeological sites in the watershed project area will be impacted by the proposed channel improvements. Clearance from impact upon archaeological and historical resources is recommended and no further study for this purpose is required.

Some of the sites should be re-collected, and one tested for intact strata, but this is not the responsibility of the Corps of Engineers.

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TEST EXCAVATION OF THE PARKER SITE (31 Ed 29) AT SPEED, EDGECOMBE COUNTY NORTH CAROLINA

Prepared for The
Wilmington District
Corps of Engineers, U. S. Army
and The
Archaeology Section
Division of Archives and History
North Carolina Department of Cultural Resources

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August, 1975

TEST EXCAVATION OF THE PARKER SITE (31 Ed 29) AT SPEED, EDGECOMBE COUNTY, NORTH CAROLINA

David Sutton Phelps

ABSTRACT

Severe flooding in the vicinity of Speed, North Carolina, has led to the proposal of dike construction around the town by the U. S. Army Corps of Engineers. An initial archaeological survey in 1974 recorded two prehistoric sites in the construction area, one of which, 31 Ed 29, might be disturbed by the dike project.

Test excavations in the construction zone of The Parker site, 31 Ed 29, resulted in negative evidence of impact, but a further test on the site's higher elevation produced stratified remains. Two other sites, 31 Ed 31, 32, were discovered and recorded adjacent to The Parker site. All three sites were occupied from approximately 8000 B.C. to A.D. 1, then abandoned until the 19th century.

None of the sites will be impacted by the proposed dike construction by the Corps of Engineers, and clearance is recommended.

INTRODUCTION

The Town of Speed is located in northeastern Edgecombe County, North Carolina, on the lower western margin of a peninsula of sandy soils jutting into the Deep Creek floodplain (Figure 1). North and south of the town, Knight Swamp and Long's Branch afford tributary flow into Deep Creek. Situated on elevations of 60 feet or less above sea level, the town and its environs have been subjected to severe flooding from this stream configuration. In order to alleviate the flood hazard, the United States Army Corps of Engineers has proposed the construction of a dike around the town and channel modification of the tributary streams (U.S. Army Corps of Engineers, n.d.).

An archaeological reconnaisance was conducted in July, 1974, to determine the impact of the proposed dike and channel work upon archaeological and historical resources in the project area (Snavely and Gorin 1974), resulting

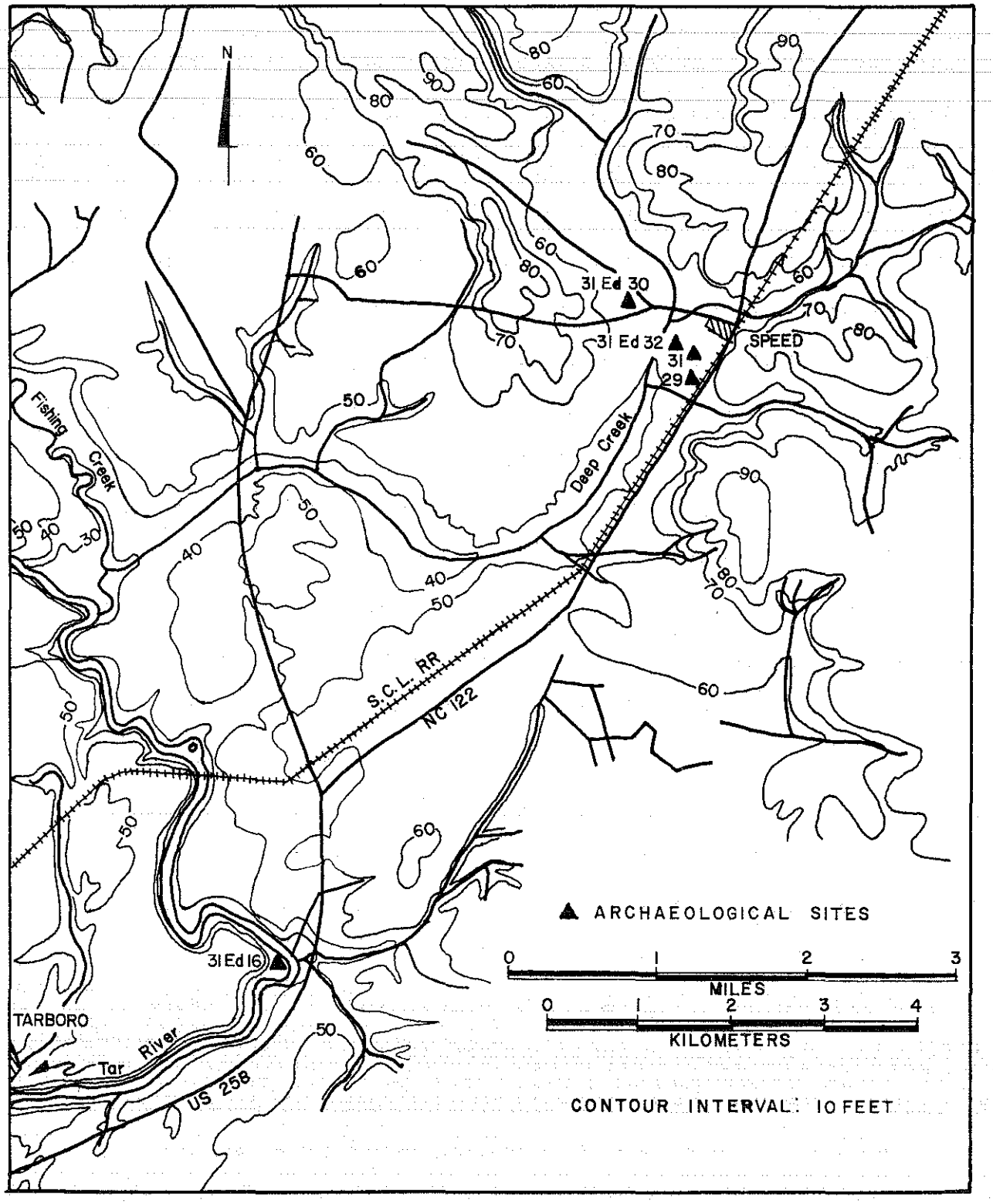


Figure 1. Archaeological sites in the Deep Creek Locality.

in the reporting of two archaeological sites, one of which might be disturbed by proposed dike construction. The southern edge of Site 31 Ed 29, possibly containing contextual remains, lay within the line of the proposed dike along Long's Branch. On the basis of their observations, Snavely and Gorin recommended that test excavations at 31 Ed 29 be utilized to determine potential damage. The other recorded site, 31 Ed 30, lay west of Speed and across Deep Creek (Figure 1) and would not be affected by the proposed construction. No sites of historical or architectural significance were recorded.

In September, 1974, 31 Ed 29 was inspected by the author and Dr. Stephen Gluckman, Chief of the Archaeology Section, North Carolina Division of Archives and History, in the company of Mr. Lloyd A. Tyndall, the project engineer, U. S. Army Corps of Engineers. The site inspection confirmed the possibility of intact remains being disturbed by construction, and a decision was made to test the site. The result of that decision was a contract between the Division of Archives and History and the Archaeological Research Laboratory, East Carolina University, to perform the required work. Field work began on December 3, delayed from the proposed starting date because of adverse weather and other factors, and was completed on December 16, 1974. Twenty-one man-days were required for the field research.

Provisions of the contract for site 31 Ed 29 included: (1) a thorough re-survey of the site surface to determine possible spatial distribution of components, (2) test excavations in the southern periphery of the site to examine the relationship of intact remains to the proposed construction area, and (3) an analysis of the cultural-environmental relationships at the site. Beyond the contract scope and provided through cooperation of the site owner, the Corps of Engineers, and extra personnel from the Archaeological Research

Laboratory, a further stratigraphic test of the non-impacted, higher elevation of 31 Ed 29 was accomplished as well as an intensive survey of the fields adjacent to the site. The latter operation resulted in the recording of two more archaeological sites, 31 Ed 31 and 31 Ed 32.

Results of the investigation are reported here in fulfillment of the contract.

THE NATURAL ENVIRONMENT

The archaeological sites described in this report are located southwest and west of the Town of Speed on the eastern margin of the Deep Creek floodplain (Figures 1-2). This locality is near the western edge of the Coastal Plain, approximately twenty miles east of the fall line separating that province from the Piedmont.

The headwaters of Deep Creek originate in the Coastal Plain northwest of Scotland Neck, Halifax County; from there, the stream flows in a general southerly direction. Two miles south of Speed, Deep Creek bends westward to join Fishing Creek approximately .5 mile above the confluence of the latter stream with the Tar River (Figure 1). Along most of its course, Deep Creek appears to have a mature floodplain of considerable complexity for a stream of its size. From Speed southward, the Deep Creek channel has been excavated and straightened in modern times, but old meander scars are readily observable in aerial photographs.

In the general vicinity of Speed, the uplands surrounding the Deep Creek basin have maximum elevations ranging from 80 to 90 feet above sea level. Deep Creek and its tributaries have eroded these into a complex of terraced peninsulas which extend between the numerous streams in the dendritic pattern.

Normal floodplain elevation in the Speed vicinity is around 50 feet above sea level.

The town and the archaeological sites are situated at elevations of less than 60 feet on the western end of a peninsula sloping westward to the Deep Creek flood plain. The northern edge of the peninsula is bounded by the Knight Swamp flood plain, while the southern margin borders Long's Branch. The western end of the peninsula is a series of loamy sand ridges, trending generally north-south paralleling the Deep Creek flood plain, and separated by trough-like depressions of poorly drained sandy loams. The ridge and trough configuration is the remnant of a much earlier flood plain development when sea level and Deep Creek were higher than present. The archaeological sites are located exclusively on the highest elevations of the sandy ridges, while the lower troughs form natural drainages (enhanced by modern ditches) between them. Figure 2 shows the distribution of sites on these ridges, all of which are situated adjacent to the flood plain.

31 Ed 29, the Parker site, occupies the higher elevations on two adjacent ridges; the western ridge is Pactolus loamy sand, a soil type characterized by moderately good drainage, rapid permeability, and low natural fertility. The northeast ridge of the site is Keanansville loamy sand, described as moderately permeable and moderately productive for crops not requiring much water. Site 31 Ed 31 occupies a ridge of Lakeland and Stough loamy fine sand, with very low fertility and excessive drainage. 31 Ed 32 is located on the highest elevation of a ridge of Pactolus loamy sand. Lower elevations between the ridges contain soils of the Craven, Leaf, and Rains fine sandy loam types which drain into the Bibb soils of the flood plain (soil type descriptions are taken from U.S.D.A. Soil Conservation Service 1974, and Newman 1960). The

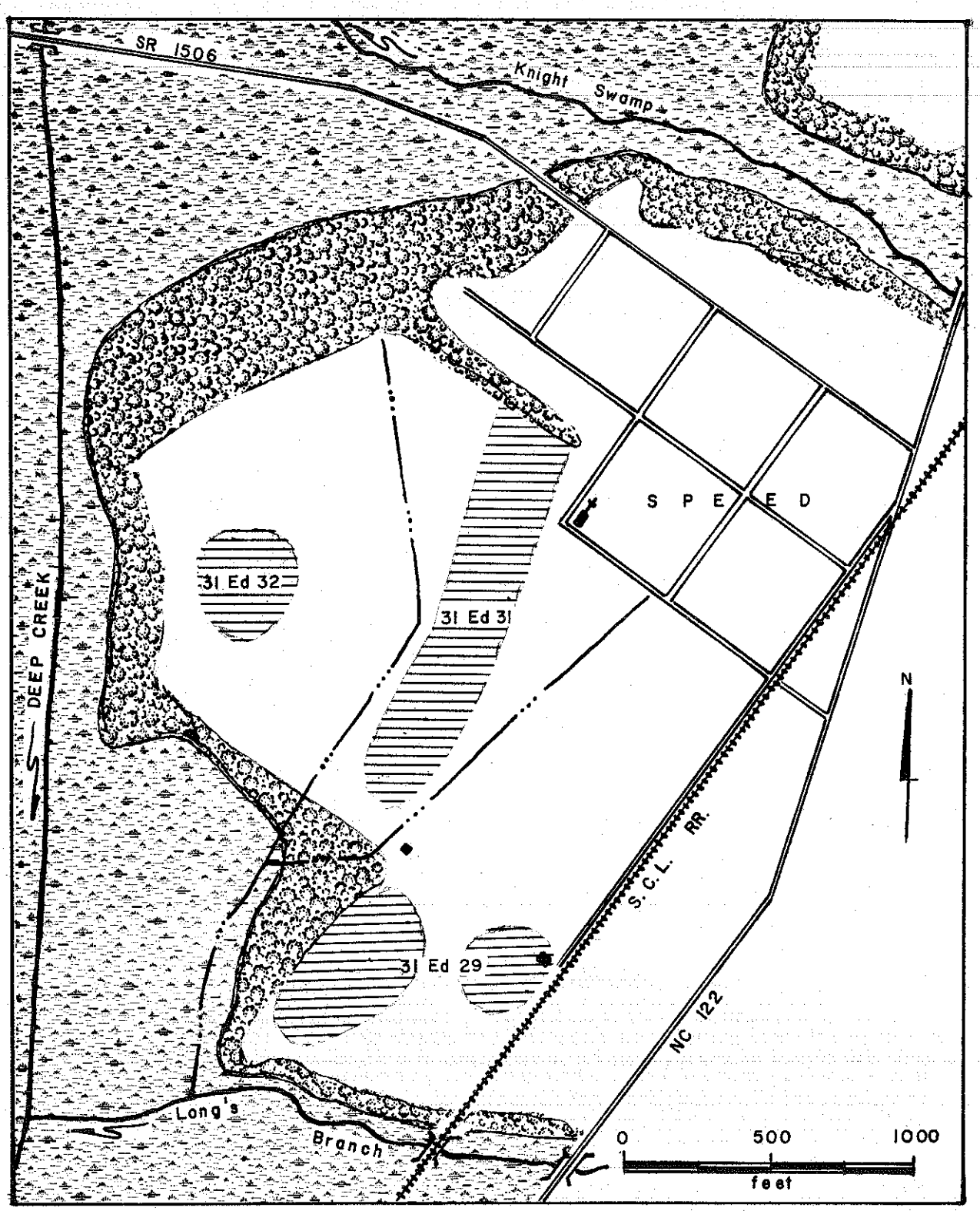


Figure 2. Relationship of archaeological sites in the Speed vicinity.

loamy sands of the site ridges are derived from marine and other sedimentary processes and are generally associated with terrace and other upland developments which pre-date human occupation of the Coastal Plain.

Most of the site areas were cleared of vegetation during the project period, having been cultivated during the past season. The loamy sands had developed a sparse grass cover, and the fringes of sites 31 Ed 29 and 32 supported mixed hardwood and pine growth beyond the edge of clearing. Dense woodland and understory growth typical of the flood plain occurs on the Bibb soils.

THE ARCHAEOLOGICAL SITES

Although the primary goal of this project was the testing of the Parker site to determine impact, the cultural information reclaimed from the three sites reported here adds significant new information to the prehistory of eastern North Carolina. Investigation of the Parker site (31 Ed 29) confirmed the heretofore questionable existence of an early ceramic complex in the Tar River drainage, and produced other useful data as well. The discovery of sites 31 Ed 31 and 31 Ed 32 permitted a more adequate interpretation of the prehistoric occupations in this particular locality.

The Parker Site -- 31 Ed 29

31 Ed 29 lies west of the Seaboard Coastline Railway and north of Long's Branch at the southern edge of Speed (Figures 2-3). The site has been cultivated for a considerable period of time by the owner, Mr. William Parker. At the time of our investigation the land had been turned following harvest of the 1974 corn crop.

Surface topography of the site consists of two ridges of loamy sand separated by a north-south depression. The western ridge, of Pactolus loamy sand, slopes westward toward Deep Creek and southward toward Long's Branch. The northeastern ridge, of Kenansville loamy sand, is separated from the former by a zone of poorly drained Craven fine sandy loam. The highest elevation on the northeast ridge is 59 feet above sea level, while that on the western ridge is 57 feet. A residence and associated features occupies part of the northeastern ridge (Figure 3).

Cultural material was distributed over the surface of both ridges above the 54 feet contour on the west, and above 56 feet on the northeast but none was found in the intervening depression. In the original site report, the surface distribution was recorded as only the western ridge (Snavely and Gorin 1974). Artifacts and cultural debris covered an area approximately 168 meters by 76 meters on the western ridge, and a circular zone of 90 meters on the northeastern ridge.

The proposed dike and channel system to be constructed by the Corps of Engineers cuts across the southern toe of the western ridge, in an alignment which led to the originally suspected impact (Figure 3).

Surface Collection

Investigation of 31 Ed 29 began with a controlled collection of cultural material from the site surface. The field crew was positioned to walk over the site in successive lines approximately one meter apart, collect all material, and be aware of differences in artifact content in various sections of the site. Had such differences in content occurred, a survey grid would have been staked and controlled grid samples taken; this was not necessary,

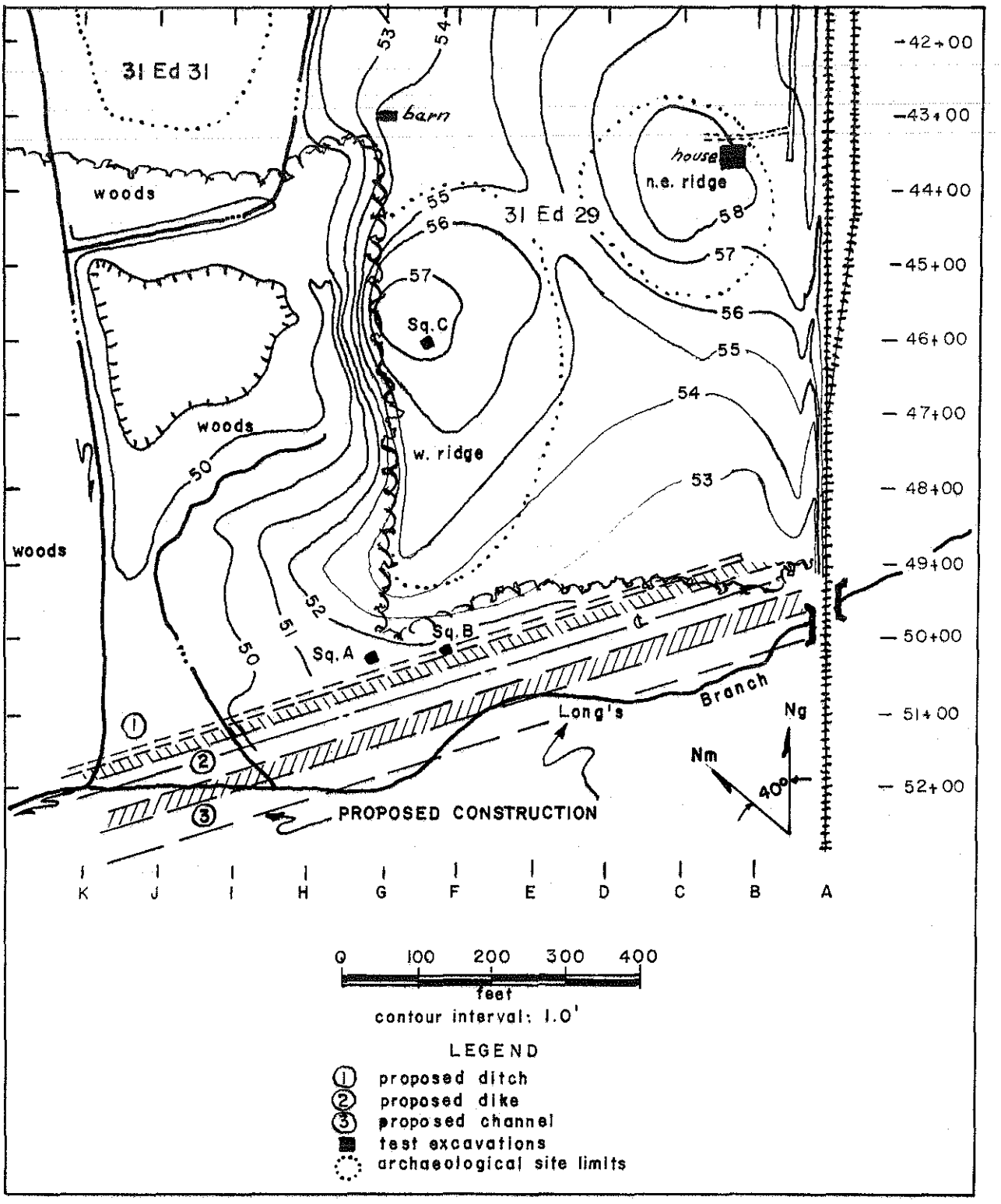


Figure 3. Map of the Parker site (31 Ed 29) showing relationship of archaeological features to the proposed dike construction. The grid system, topographic and construction data are taken from the U. S. Army Corps of Engineers project map.

however, because of the relatively homogeneous distribution of artifact classes and types. Edges of the site were marked where specimen distribution ceased, and the surface dimensions measured and recorded. Materials from the western and northeastern ridges were kept separate until analysis confirmed that no differences in content existed.

The cultural material collected in the surface survey (including the specimens from the initial survey by Snavely and Gorin) is described below by functional type.

Projectile Points: Twenty-five points and point fragments (21 identifiable) ranging in age from approximately 8000 B.C. to 500 B.C. were collected from the surface of 31 Ed 29. Most of these were sufficiently intact for identification of type. Type descriptions used here follow those of Coe (1964) insofar as they are applicable.

Palmer: Two points of this type were recovered. One was produced from dark gray slate, has a concave, ground base, well-defined corner notches, and an asemmetric triangular blade (Figure 4b); the other is gray quartzite with a straight, ground base, triangular serrated blade and well-defined corner notches.

Kirk: A single Kirk corner-notched point (?) poorly executed from a quartzite flake, and broken on the basal end is illustrated in Figure 4c. The distal end shows evidence of re-sharpening.

Morrow Mountain I: This type is represented by two specimens. One made from gray slate has the wider shoulders characteristic of the type and a short reducing stem with rounded base (Figure 4a).

The other is similar, but smaller and was produced from green slate.

Morrow Mountain II: The 11 points assignable to this type render it numerically preponderant in the collections. Seven of the Morrow Mountain II specimens in Figure 5a-g illustrate their range of size and quality. Slate and quartzite points predominate, with quartz a minority choice in production materials.

Guilford: Two points of this type occurred in the surface collections. One, apparently unfinished, shows the characteristic transverse bi-lateral flake scars (Figure 4e); the other is represented by a basal section only. Both specimens have the pronounced lenticular cross-section typical of these points.

Savannah River: One quartzite Savannah River point with asymmetric shoulders and a broken distal tip is shown in Figure 5h.

"Small stemmed" type: Two specimens which currently have no type description are illustrated in Figure 4d and f; one was produced from quartz, the other from gray quartzite. The point shown in Figure 4d has asymmetric shoulders, a straight stem ending in a straight base, and poorly executed flaking with secondary retouch along the blade edge. The distal end is broken. The other specimen, of quartzite, exhibits poorly controlled pressure flaking, has poorly defined, slanting shoulders, straight stem, and slightly concave base. This type occurs in surface collections but has no published

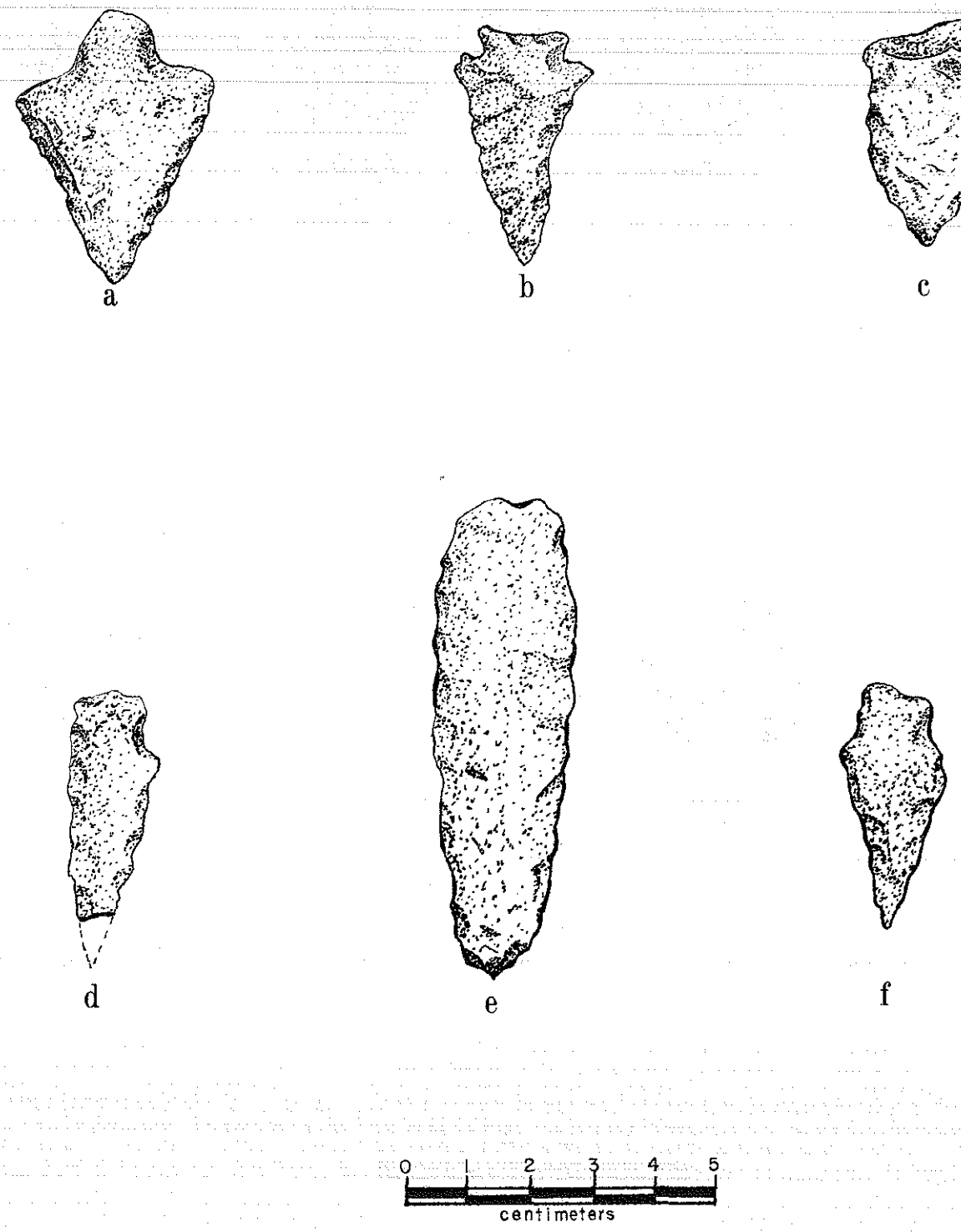


Figure 4. Projectile points from the surface of 31 Ed 29. Morrow Mountain I (a), Palmer (b), Kirk corner-nothced (c), Guilford (e), and the small stemmed type (d, f). (All actual size; dotted lines represent conjectural reconstruction.)

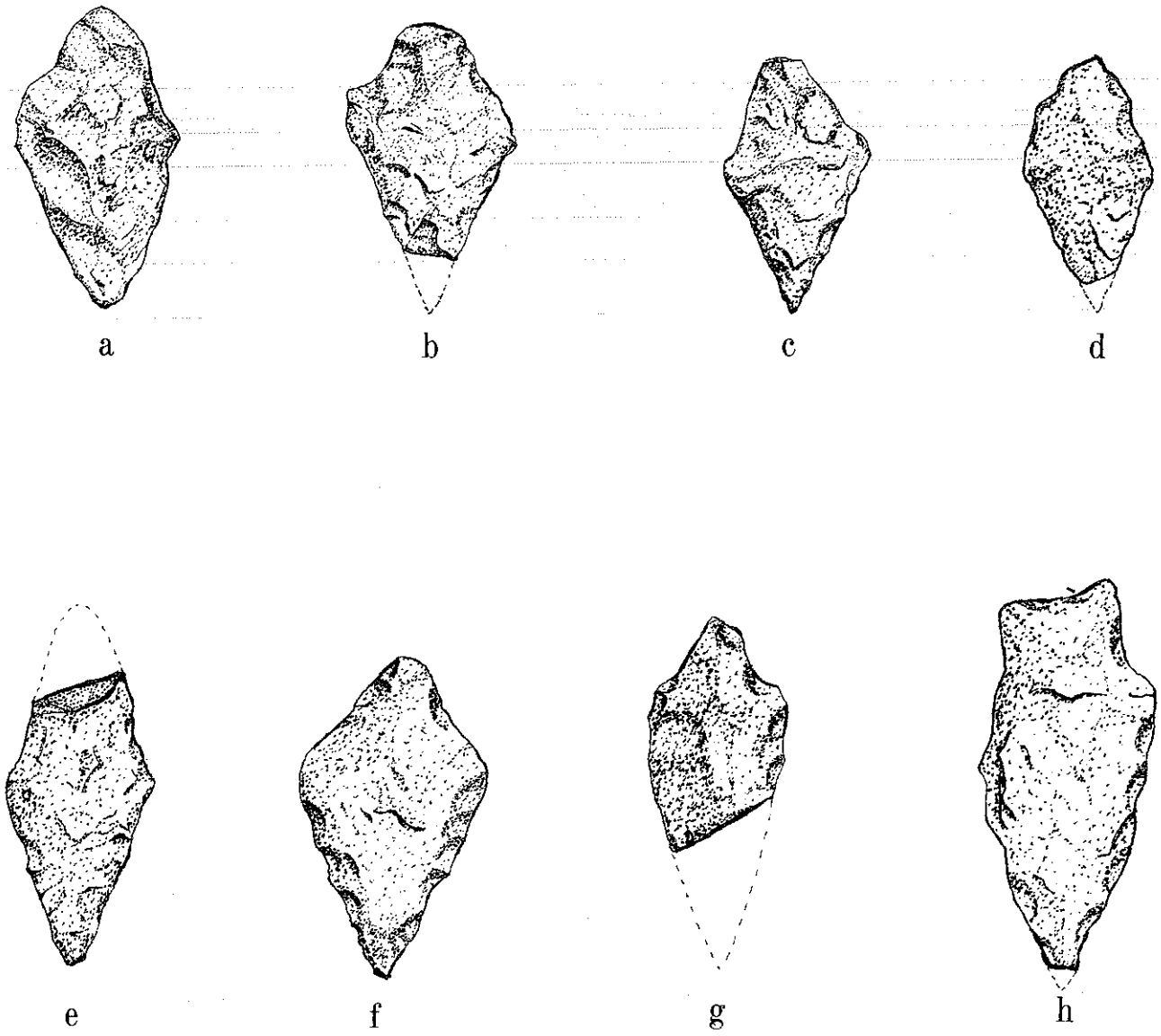


Figure 5. Projectile points from the surface of 31 Ed 29. Morrow Mountain II (a-g) and Savannah River (h). (All actual size; dotted lines represent conjectural reconstruction.)

stratigraphic provenience. It has been found in presumed early Woodland context in the Gaston Lake locality but the data are not published. It is possible that the type is transitional between Savannah River and the subsequent Woodland types.

Unassignable fragments: Four fragments of points were too small and indistinct to assign type nomenclature.

All of the above listed types except the "Small stemmed" are presumed to have been attached to spear or "dart" shafts for use with a spear-thrower (atlatl). Assignment of the specific function of the "small stemmed" type must await future evidence.

Drills: Five drills and fragments were collected from the site surface, each of which has had the distal tip or section broken. The drills can be classified into three types on the basis of their shape attributes.

Elongate expanding stem, rounded base: Two specimens, both of quartzite, fit this type (Figure 6d and f). Both show excellent pressure flaking.

Expanded base: This type has a relatively straight stem which expands basally into a straight base (Figure 7d). The one specimen was made from green slate.

Straight stem, straight base: One specimen of this type (Figure 7c) has no differentiation of the basal stem section. The specimen is green slate and was produced by percussion chipping; secondary retouch is observable on the remaining bit edges. The other specimen is fragmentary.

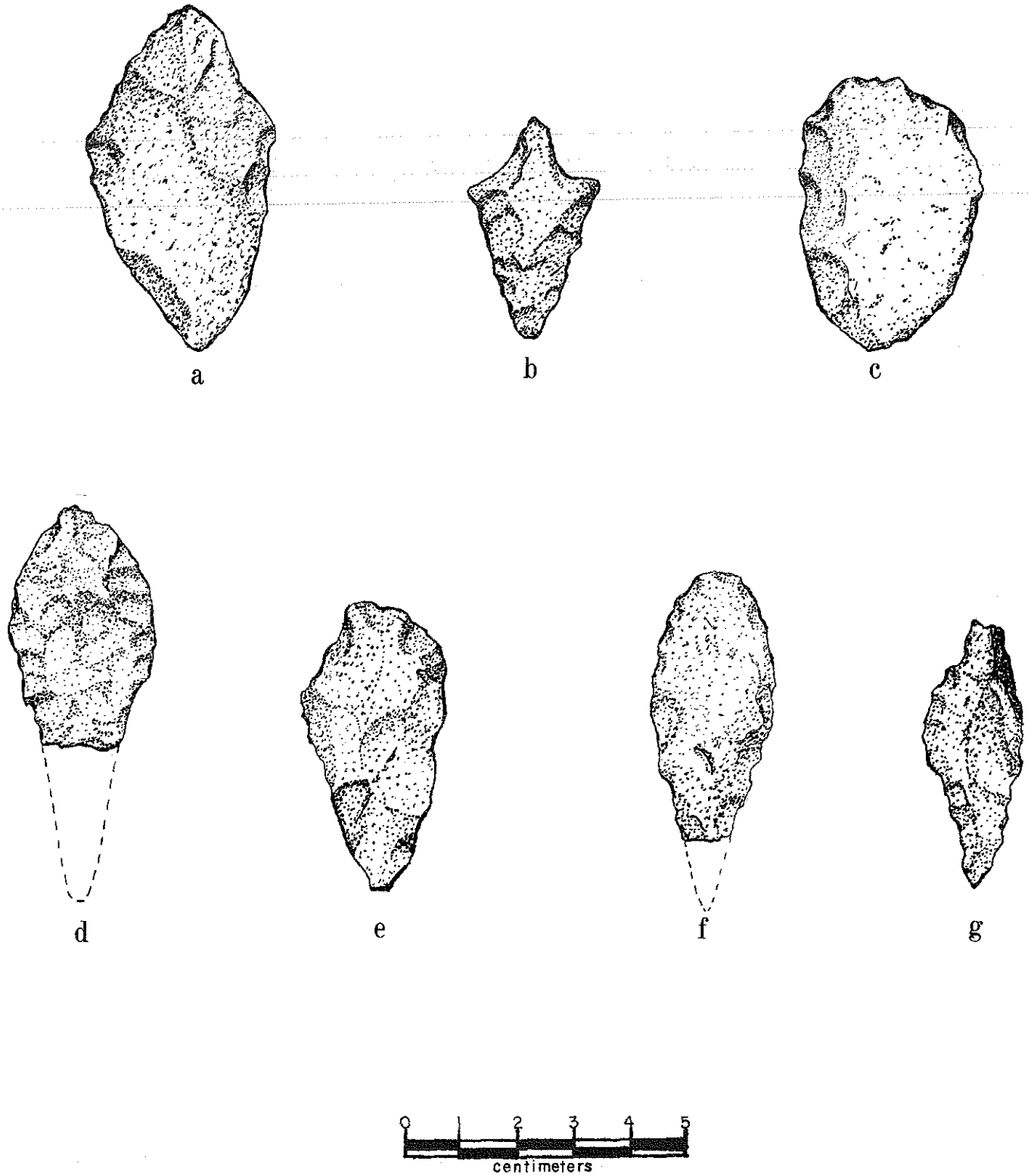


Figure 6. Plotted specimens from 31 Ed 29, Square C, Zone II; flake blade (a), scraper (c), and Morrow Mountain II projectile point (b). Drills (d, f-g) and blade (e) from surface of site. (All actual size; dotted lines represent conjectural reconstruction.)

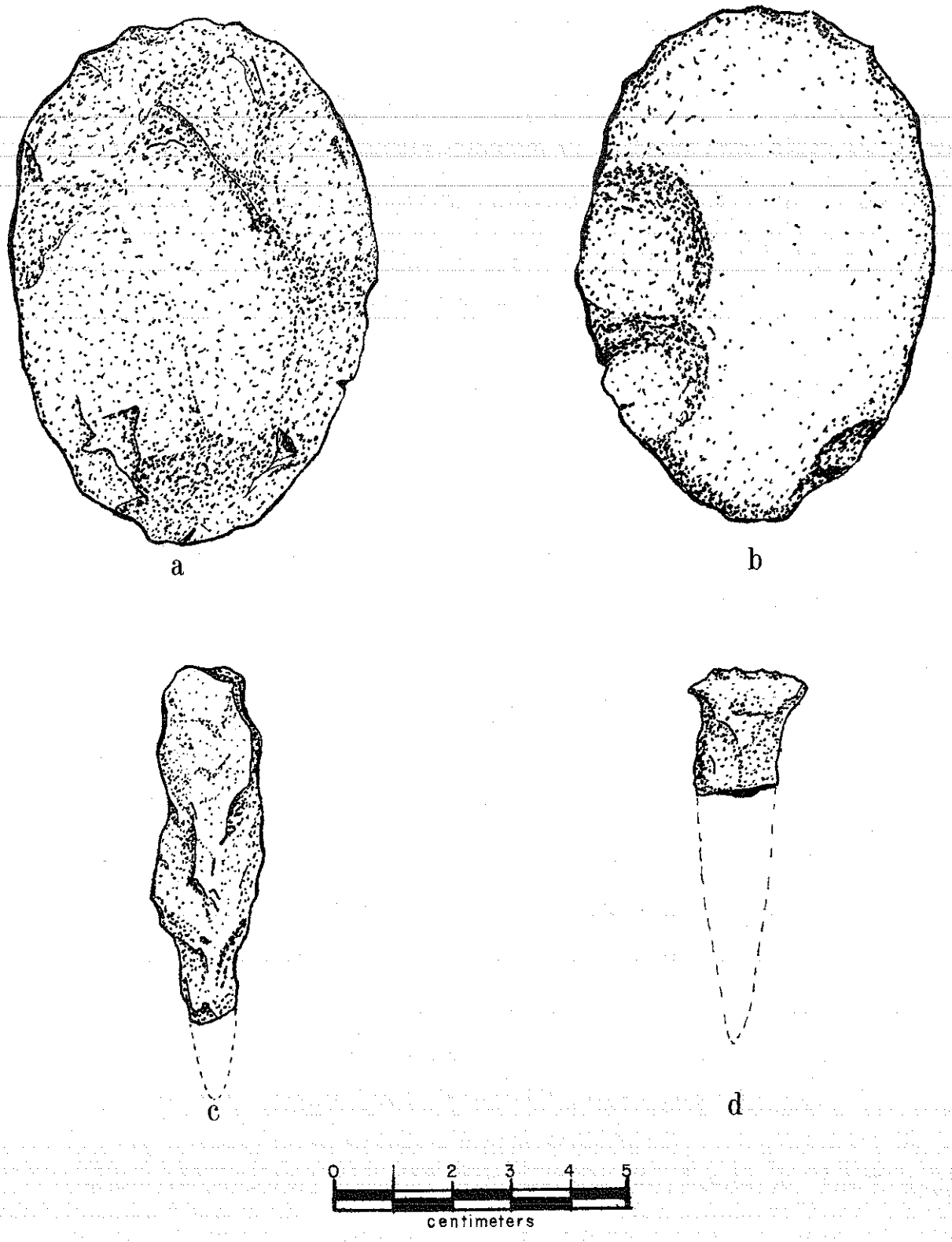


Figure 7. Blade in process of production (a, reverse; b, obverse) and drills from 31 Ed 29. (All actual size; dotted lines represent conjectural reconstruction.)

Combination tools: Two artifacts fall into this category of dual function. Both are chips which were modified by pressure flaking to serve a blade (cutting) purpose and graving (engraving) or punching functions. Figure 6g illustrates one of these tools made from green slate; the other is of rhyolite.

Blades: Ten identifiable blades and 14 blade fragments were recovered in the surface collection.

Trianguloid: Four trianguloid blades, bilaterally chipped,were produced from quartz, quartzite or slate. Three of these are illustrated in Figure 8a-c.

Ovate or oval: Two quartzite specimens of ovate shape were bilaterally chipped, first by percussion, then pressure retouched; one of these is shown in Figure 8d. A third specimen was in the production process when abandoned; it is oval, of gray quartzite with a weathered tan surface. Only four flakes had been removed from the weathered surface of the cobble shown in obverse (Figure 7b), while percussion shaping was well-advanced on the reverse (Figure 7a). A fourth specimen is gray slate, excellently flaked into an elongated oval shape with rounded ends.

Two blades have amorphous shapes and are bilaterally chipped. Blade fragments are probably representative of all the above types.

Scrapers: Three scrapers in the surface collection all fall into the shape category of ovoid. All exhibit pressure re-touch along the edges and have a characteristic plano-convex cross-section. One of these is made from quartz, the others from quartzite (Figure 8f-h). A fourth scraper is represented by a fragmentary edge.

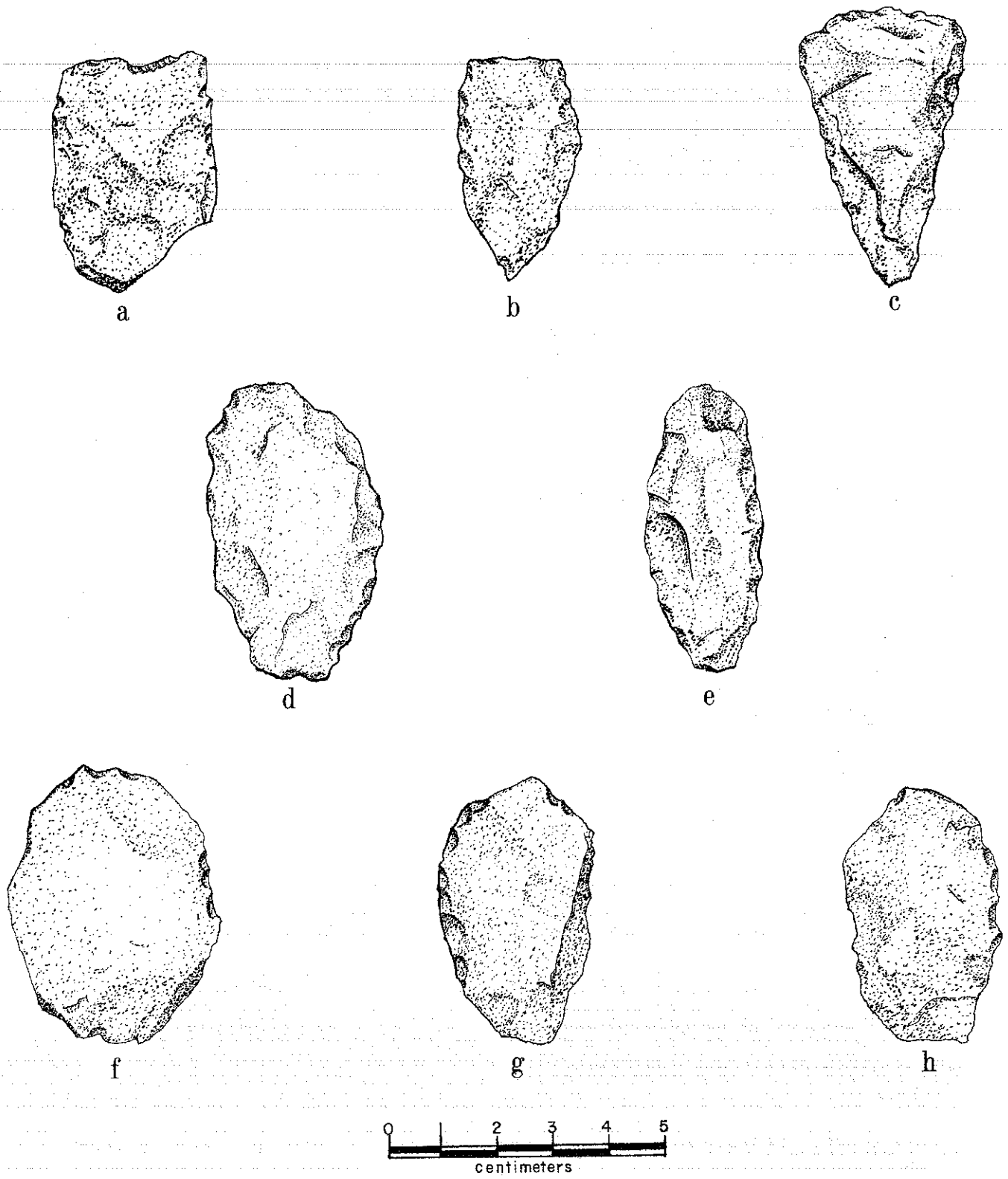


Figure 8. Blades (a-e) and scrapers (f-h) from 31 Ed 29. (All actual size.)

Grinding stones: Two quartzite grinding stones which were cobbles modified by abrasive use on one side of each. Fragments of two other grinding stones, also quartzite, were collected.

Hammerstones: Two small quartzite pebble hammers show the characteristic pecked ends typical of such use.

Cores: Fourteen complete or fragmentary cores of gray and tan quartzite and quartz are indicative of frequent use of these stones for tool production. The cores range from small fragments to pieces 13 centimeters in length.

Spalls: 673 spalls or flakes remaining from tool production were collected as a random sample of such materials on the site surface. Material represented includes quartz (clear and milky), quartzite (gray, rose and tan), slate (gray and green), and rhyolite.

Fire-cracked stone: Fourteen fragments of heat-cracked quartz and quartzite pebbles and cobbles are indicative of the use of these stones in hearth and other fires. The number collected is a random sample.

Historic materials: Fragments of both commercially produced, standard and older, locally made brick were collected from the northeast ridge and the northern end of the west ridge. In the same areas, fragments of coal, slag, and a variety of glass were obtained. All of these are assignable to relatively recent human activities.

Atlatl (spear thrower) weight: A fragment of an atlatl weight made of green slate was retrieved in the original site survey. The fragment preserves a section of the shaft hole with characteristic drilling scars and a portion of

the highly polished exterior surface. The specimen appears to have been of semi-lunar shape originally.

Ceramics: Table 1 presents the ceramic type distribution from the surface of 31 Ed 29. The most significant cultural fact is the occurrence at this site of fiber-tempered sherds (Figure 9a-b), the most northerly reported find of this early ceramic type. While no type name has been assigned to these in the table, they appear to be inseparable from the type Stallings Plain (Sears and Griffin 1950). The distribution of plain fiber-tempered ceramics in this section of the Coastal Plain is just beginning to be understood, thus it seems prudent to hold type assignment in abeyance for the moment.

The single steatite sherd is of gray crystalline steatite. Its wall curvature indicates that it is broken from a rectangular "tub-type" vessel. It may belong either in the Late Archaic or Early Woodland.

One sherd with steatite tempering was recovered (Figure 9c). This temper type is also unreported for this part of the Coastal Plain and is more at home north of here in the Marcey Creek series (Evans 1955). This specimen is listed as probably having simple stamped surface decoration, although the decorative impressions are indistinctly applied. Some of the temper particles are 3 to 4 millimeters in size.

The other prehistoric ceramic specimens are all sand tempered, with clastic inclusions ranging from fine to course sand. Occasional sherds have large particles of quartz, included with the sand, of sufficient size to protrude through the vessel walls. As the distribution in Table 1 shows, the most popular surface finish is cord marking (Figure 9d), with simple stamping (Figure 9e), cord-dowel, and net impressing (Figure 9f) consistent, but minor

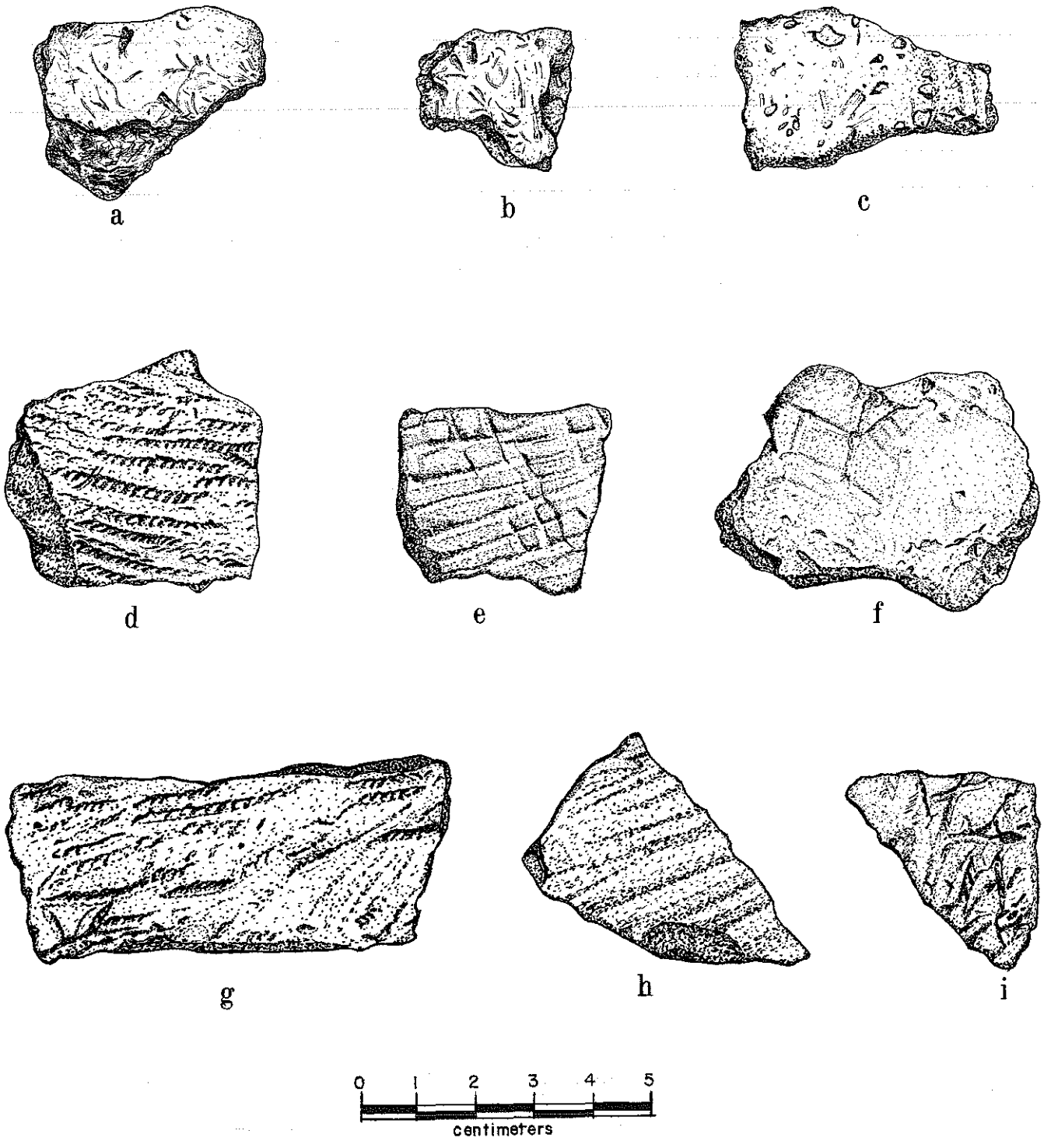


Figure 9. Ceramics from 31 Ed 29 (a-f) and 31 Ed 31 (g-i). (a-b) Fiber-tempered plain; (c) steatite-tempered (possibly simple-stamped); (d, g) cord-marked; (e, h) simple stamped; (f, i) net impressed. (All actual size.)

techniques. All of these types appear to belong to phases of the Early Woodland stage in the Coastal Plain although dates of their production are not yet firmly established. The cord marked specimens were impressed with twined cords ranging from one millimeter to 2.5 millimeters in diameter; rim specimens exhibit both rounded and flat lips.

The simple stamped sherds were impressed with a paddle which produced rectangular lands and grooves, the latter ranging in width from 1.5 to 2.5 millimeters. Cord-dowel refers to surface finish accomplished by impression of a dowel or cylinder-like tool wrapped with cord into the wet clay surface. This type of surface finish is often referred to as "fabric marked" but the idea of a woven fabric is misleading when applied to these specimens.

The historic ceramic specimens from 31 Ed 29 include one rim sherd of a modern bisque-fired flower pot and two sherds of gray salt-glaze ware datable to the 19th century.

TABLE 1. FREQUENCY DISTRIBUTION OF CERAMICS AT 31 Ed 29.

Type	Provenience		
	Surface	Square C, Zone I	Square C, Zone II
Steatite	1		1
Fiber tempered plain	5		
Steatite tempered, simple stamped (?)	1		
Sand tempered, cord marked	117	1	15
Sand tempered, simple stamped	5		
Sand tempered, net impressed	7		
Sand tempered, cord-dowel	6		
Sand tempered, plain	1		
Unidentified*	131		9
Historic	3		
Total	277	1	25

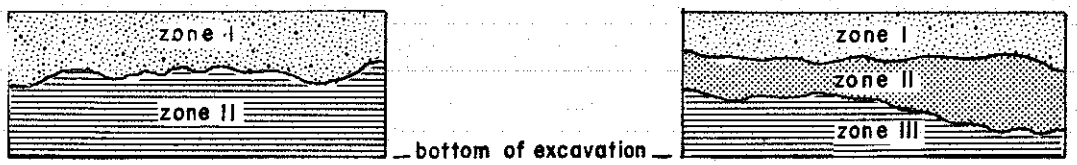
*Sherds too small for identification or with extremely eroded surfaces.

The Eakes Collection: Mitchell and James Eakes, who live in Speed and have collected materials from 31 Ed 29 during the past few years, allowed us to study and photograph part of their collection from the site. The specimens included projectile points of the Morrow Mountain I and II, Guilford, Halifax, and Savannah River types, and a large ovate blade. The Halifax point represented information not available from our project data.

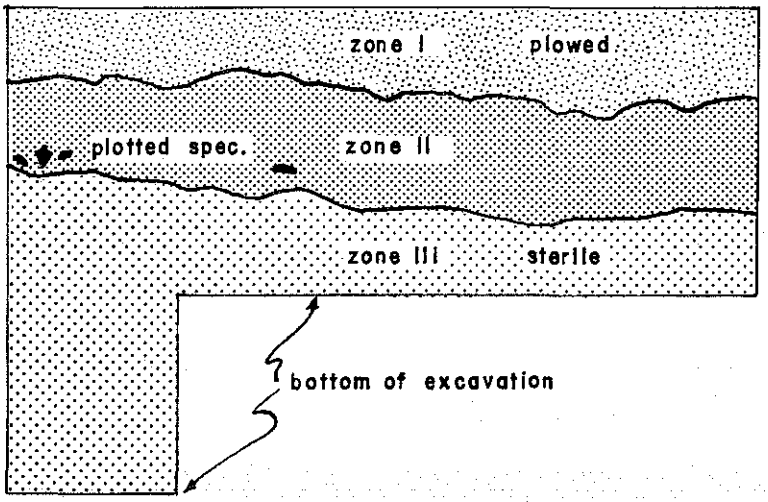
Test Excavations

The primary purpose of this project was to determine through test excavations whether or not the proposed dike construction would disturb intact cultural remains at the southern edge of 31 Ed 29. To achieve that goal, two test squares, each 1 meter by 1 meter, were staked out along the northern edge of the proposed dike construction. The position of these squares is shown in Figure 3, plotted in the grid system established by the Corps of Engineers for the project. All test squares on the site were oriented toward magnetic north; the Corps of Engineers grid north is N 40° E.

Test square A was placed in the wooded area immediately north of the proposed flanking ditch between the dike and the archaeological site. This location would adequately determine whether distribution of cultural materials on the southern toe of the site extended into the construction zone. The square was excavated in 10 centimeter levels to a depth of 40 centimeters. Two zones were encountered in the excavation, both completely sterile of cultural material. Zone I was a dark grayish-brown loam attaining an average depth of 20 centimeters; below this, Zone II was a yellow sandy clay (Figure 10a), the depositional origin of which precluded finding cultural materials below. Corps of Engineer grid coordinates for the northeast stake of Square A are G50+26.7-3'R.



a b



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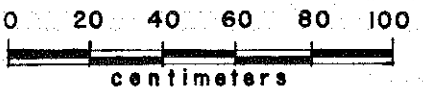

Figure 10. Stratification and stratigraphy in Test Squares A (a), B (b) and C (c) at 31 Ed 29.

Test square B (grid coordinates G50+13.7-82'L) was located to test the actual ditch construction zone north of the dike. Three soil zones were encountered in this square (Figure 10b) which was also excavated in 10 centimeter levels to a depth of 40 centimeters. None of the soil zones contained any cultural material. Zone I was the same dark grayish-brown loam encountered in Square A, Zone I, here reaching an average depth of 12 centimeters. Zone II was a sticky gray clay, stained brown in areas where leaching of the overlying humic soil had occurred, of 15 centimeters average depth. The thickness of Zone II appeared to increase toward the east as its bottom contour dipped in that direction. Zone III was similar to the yellow sandy clay recorded in Zone II of Square A, except that here it incorporated lenses and patches of gray clay and small decayed, nodules of iron compounds.

The soil profiles in Squares A and B fall within the classification range of the Leaf series of soils associated with poorly drained flood plain margins (U.S.D.A. Soil Conservation Service 1974: 19). The Soil Survey field sheet for Edgecombe County shows a Leaf classification for the area in which the test squares were excavated.

The north profiles of both squares were drawn to scale, that of Square B was photographed, and both squares back-filled. Results of the test excavations show that the lower, wooded fringe of the flood plain south of 31 Ed 29 along Long's Branch was effectively outside the occupation area of the site, and that construction here will not disturb cultural remains.

The negative results of Test Squares A and B left the problem of possible intact remains within the non-impacted occupation area of the site. Through the cooperation of the Corps of Engineers, and Mr. Parker, the site owner, arrangements were made to excavate a test square on the highest elevation of the site. Test Square C, two meters by two meters, was positioned on

the 57' contour on the highest part of the west ridge, its northwest stake at grid coordinates G46+11-61'R (Figure 3). Due to the project time factor, this square was excavated in 25 centimeter levels to 75 centimeters, a depth below the occurrence of cultural materials, and a smaller excavation was continued through sterile soil to a depth of 1.4 meters.

The Edgecombe soil sheet classifies the soil on the west ridge as Pactolus loamy sand and the stratification of Square C (Figure 10c) confirms this classification (U.S.D.A. Soil Conservation Service 1974: 26). Zone I consisted of grayish-brown loamy sand to a depth of approximately 25 centimeters, at the bottom of which were observed parallel plow scars indicative of recent deep plowing of the field. Zone II, from 25 to about 60 centimeters, was a friable, yellow sand, underlain by Zone III, a white sand observed to 1.4 meters but continuing to an unknown depth. The latter zone contained no cultural material.

Cultural material was reclaimed from Zones I and II of Square C, but quantity decreased considerably in the lower level of Zone II, and disappeared completely at the top of the white sand in Zone III. The cultural stratigraphy of the two zones is mixed, with no vertical differentiation of temporally distinct artifact types.

Zone I (plow zone 0-25 cm.)

Ceramics: 1 cord marked, sand tempered sherd (Table 1).

Blades: 2 blade fragments, both quartzite; 1 from triangular blade, the other from an elongated oval blade.

Spalls: 247 waste flakes from tool production. A majority of these are quartzite, slate and quartz; 2 are light gray flint and one is a dark gray gneiss.

Fired clay: 54 fragments of fired clay ranging in size from about 8 millimeters to 28 millimeters. These appear to be fragmented remains of hearth linings.

Zone II, Upper (25-50 cm.)

Ceramics: 15 cord marked, sand tempered sherds, and 9 unidentifiable small sherds (Table 1).

Blade: 1 fragment of an ovoid quartz blade.

Spalls: 98 flakes of quartzite, slate and quartz.

Fired clay: 22 fragments of fired clay ranging from 7 to 25 millimeters in size (clay hearth lining?).

Zone II, Upper, Plotted specimens (45 cm.)

A concentration of three artifacts was recorded at 45 cm. depth in the northwest corner of Square C; these included a Morrow Mountain II projectile point, an excellently flaked ovoid scraper, and a large quartzite flake retouched along one edge. These specimens are illustrated in Figure 6a-c. Not illustrated, but plotted at the same depth at the mid-point of the north wall was a steatite sherd broken from a small simple bowel. The steatite is predominantly pink (a type frequently occurring in the Roanoke River valley), and has been well-smoothed. It should be noted that the above specimens occurred at a depth at which ceramic sherds were still being recovered.

Zone II, Lower (50-60 cm.)

Projectile point: 1 broken Morrow Mountain II point of green slate.

Spalls: 4 flakes of slate, quartz and quartzite.

Scraper: 1 broken chip scraper of clear quartz.

Fired clay: 5 small fragments of fired clay.

The obvious conclusion to be drawn from Square C data is that cultural material is intact below site surface; the stratigraphic value of such material, however, cannot be fully appraised from this excavation. Zone I is disturbed in its entirety by deep plowing, negating its usefulness for component separation. It is possible that excavation of Zone II in smaller vertical units would produce separation of at least Archaic and Woodland components, but this seems unlikely. Based on our test excavation, the loose yellow sand of Zone II has apparently permitted mixing of materials during site occupation, thus Morrow Mountain points occur with Woodland ceramics in the upper part of the zone. Zone II, lower, does indicate a context, limited to the Archaic, based on the one fragmentary Morrow Mountain point and negative ceramic evidence. Finally, a single test square in a site the size of 31 Ed 29 is not sufficient; comprehensive testing of the site can only answer the question of its full potential.

The north profile of Square C was plotted and photographed, and the excavation back-filled.

Cultural Sequence

The sequence of cultural components of 31 Ed 29 spans the period of time from approximately 8000 B.C. to A.D. 1. During this period, almost every prehistoric phase of this region is represented, albeit minimally in some cases.

The sequence begins with the earliest phase of the Archaic stage, a cultural developmental construct defined by a primary subsistence economy of intensive hunting and gathering and a central-based settlement pattern of small habitation sites occupied seasonally throughout the society's territory. The Archaic stage in this region is generally defined as beginning around 8000 B.C. and ending sometime between 2000 and 1000 B.C.

The sequent components of the Archaic at 31 Ed 29, as identified by evidence of the changes in projectile points, are (from earliest to latest):

Palmer: 8000 - 7000 B.C.

Kirk: 7000 - 6000 B.C. (early Kirk only)

(hiatus in data at 31 Ed 29)

Morrow Mountain: 4500 - 3500 B.C.

Guilford: ca. 4000 B.C.

Halifax: 4000 - 3000 B.C.

Savannah River: 3000 - 2000 B.C.

Dates for this sequence are based in part on stratigraphic estimates and partially on radiocarbon determinations. Coe (1964: 67) has estimated the beginning of the Palmer phase between 8000 - 7000 B.C. A recent summary of date and phase correlations may be found in Griffin (1974: Table 29).

The Kirk component at this site is represented only by the earlier Kirk corner-notched type; the types Kirk stemmed and Kirk serrated (6000-5000 B.C.) are not present in the sample. Similarly, the Stanly point which succeeds Kirk types in the sequence, is not represented. The absence of these components may be nothing more than sampling error considering the constant clearing of the site by various collectors. The Halifax point representative of that component belongs to the Eakes collection; none occurred in the collections during this project.

The Woodland stage is marked by the presumed introduction of cultivated plants, the beginning of ceramic manufacture, and a change (somewhat later) in projectile point shapes. Two Woodland components, referable to the earlier part of the stage, can be recognized at 31 Ed 29. These are:

Early ceramic component I: 2000 - 1000 B.C.

Early ceramic component II: 1000 B.C. - A.D. 1.

Because ceramic stratigraphy and typology is still being clarified for the North Carolina Coastal Plain, these interim provisional terms have been utilized. Early ceramic component I is identified by the presence of plain, fiber tempered pottery, the earliest known ceramics in North America, generally datable to the period assigned above. 31 Ed 29 must be at or near the northernmost distribution of this ceramic type which increases in frequency to the south. These fiber-tempered sherds are the first recorded for the Tar River drainage, although previous finds are known from the Neuse drainage system in Pitt County, and in southeastern North Carolina (South 1960: 55). The steatite vessel fragments may belong to this component or to the Savannah River component of the Archaic; stone vessels were in both these time periods. The "small stemmed" projectile points probably belong to this component also.

Early ceramic component II includes the sand tempered and steatite tempered sherds with various surface finishing techniques. These techniques, with the exception of the land and groove simple stamping, are generally considered to have been introduced from the area north of here sometime around 1000 B.C. The simple stamping reflects southern influence referable to the same time period. Stratigraphic isolation in other sites will be necessary to solve the problem of the sand-tempered early pottery, but it seems likely that the types represented here belong to a single cultural-temporal unit with a majority preference for cord marked finishing techniques.

At no time during the long occupation of 31 Ed 29 was the size of the settlement large; all of the evidence on surface distribution of materials, quantity of artifacts from identifiable components, and depth and concentration of materials, lend credence to this assumption. Throughout the Archaic and the two Early Woodland occupations, the site probably served as a temporary camp or seasonal habitation for no larger population segment than an extended

family or small band. The primary advantage of the location would appear to have been access to the available fauna and forest products of the floodplain and immediately adjacent ridges. It is possible that, in Woodland times, the site may have been a farmstead, but soil typology tends to preclude this type of utilization.

Sometime around the beginning of our calendric era (A.D. 1), occupation of 31 Ed 29 ceased; the site would not again see intense human utilization or occupation until the 19th century and the establishment of the Speed community. There are logical reasons for this abandonment which are discussed below in the section on site and environmental relationships.

Recommendations for 31 Ed 29

For the purposes of this project, the test excavations conducted to determine possible impact (Squares A and B) produced negative results. No part of site 31 Ed 29 will be affected by the proposed dike construction by the Corps of Engineers, and clearance from such impact is recommended.

Archaeological information reclaimed during the project is highly significant, however, and has added considerably to understanding of prehistoric culture in this part of Coastal Plain. Since the site does contain some possibility of stratified information outside the Corps project area, care should be taken to insure some degree of protection until further studies can be accomplished. This is, of course, beyond the responsibility of the Corps of Engineers.

SITE 31 Ed 31

31 Ed 31 lies 300' (100 meters) north of the west ridge of the Parker site, 31 Ed 29. Cultural materials were distributed over the surface of an

area measuring approximately 300' by 1000' (100 x 300 meters) on the higher elevations of a north-south aligned ridge of Lakeland loamy fine sand (Figure 2). Approximately mid-way between the wooded flood plain to the south, and the point where the residential area of Speed intrudes upon the site, a band of Stough loamy fine sand divides the ridge of Lakeland soil. The maximum elevation of the ridge is around 54 feet above sea level, and a noticeably lower "saddle" occurs in the zone of Stough soil. East and west of the site, drainage ditches define the lowest elevations between it and adjacent ridges; on the east drainage flows through a zone of Rains fine sandy loam, passing between 31 Ed 31 and the northern edge of 31 Ed 29; to the west, the drainage flows through a zone of Leaf fine sandy loam separating 31 Ed 31 from 31 Ed 32 to the west.

Surface Collection

The site was devoid of vegetation except in, and adjacent to, the drainage ditches when the surface survey was accomplished. As in the case of 31 Ed 29, the fields had been plowed following harvest of the 1974 crops. The collection procedure here, also, involved spacing the survey crew at intervals of approximately one meter across the site and carefully collecting materials from one end to the other. Distribution of artifact types indicated no advantage in setting up a grid for a more controlled collection. There was a noticeable decrease in quantity and increase in the size of specimens found in the depression occupied by the Stough soil; apparently the saddle-like depression was not included in the original occupation zone, the large specimens and fragments reclaimed there having been re-deposited by the plowing process over the years.

No temporal or typological differences in the distribution of artifacts were observed along the ridge. The recent practice of deep plowing has disturbed the loose sandy soil to at least 25 centimeters below the surface; on the northern and southern ends of the site, sand has been borrowed consequently destroying the occupation evidence. Apparently the site continues into the residential area of Speed on the north, and local informants reported collecting sherds from the residential area. The northern limit of the site is thus undetermined in this report. Cultural material from the surface includes the following:

Projectile points: A Kirk corner-notched point of green slate with distal blade end broken.

Projectile point blanks: 2 blanks, or unfinished points, one a rhyolite Guilford, the other a Yadkin triangular point of gray quartzite.

Grinding stones: one complete and 4 fragmentary grinding stones, one or two surfaces of each showing characteristic abrasive wear. One specimen is schist, the others are quartzite.

Cores: Two quartzite cores, each with a number of flakes removed.

Spalls: 156 spalls, 6 of which had edges chipped for use; stone types include quartzite, slate, quartz, rhyolite and schist, in order of popularity.

Historical materials: Fragments of commercially produced brick, and lumps of coal.

Ceramics: Prehistoric ceramic specimens included the same sand-tempered types found at 31 Ed 29. Their frequency distribution

is listed in Table 2 along with the single white-glazed historic sherd reclaimed.

Steatite sherd: Also listed in Table 2 is one sherd from a steatite vessel of undetermined shape.

Cultural Sequence

The sequence of components at 31 Ed 31 is not as complete as that at the Parker site, although a considerable overlap in occupation of these two sites occurred. Part of the disparity in quantity and typology represented in the surface collections from these two sites is due to the fact that 31 Ed 29 was comprehensively collected three times (four, if the original survey is included) subsequent to rainy periods, while 31 Ed 31 was collected only once.

The Archaic stage is represented at 31 Ed 31 by two components:

Kirk: The single Kirk corner-notched point belongs to the earlier part of the Kirk component, 7000-6000 B.C.

Guilford: The Guilford point is indicative of occupation around 4000 B.C.

These two types are probably not representative of the total Archaic sequence on the site, and further collection should produce more qualitative evidence. It is rarely the case that a single collection of a multi-component site reclaims a full series of artifacts.

Early Woodland Component I: The single steatite sherd may be referable to this component, or to a preceding Late Archaic time.

Early Woodland Component II: The unfinished Yadkin point and the sand-tempered ceramics belong to this component, approximately dated between 1000 B.C. and A.D. 1. The association of the Yadkin triangle with most of

these ceramic types has been suggested for the Piedmont province (Coe 1964) and appears to also have a continuous distribution in the Coastal Plain southward to the Savannah River. It is in the latter province that simple stamped surface finish appears to be more frequent. The relative frequency distribution of surface finish at 31 Ed 31 is similar to that at 31 Ed 29; cord-marking (Figure 9 g) is most popular, with simple stamping (Figure 9 h), net impressing (Figure 9 i), and cord-dowel represented in nearly equal, but minor, quantities.

Apparently, the settlement size during any one component occupation of 31 Ed 31 was small, and re-occupation not in high frequency. The Lakeland sands on the site are of low fertility, and habitation of the site was probably related to use of the natural environment for other than agricultural purposes in the Early Woodland stage. Obviously, the close proximity of the flood plain offers a wide variety of resources utilized throughout the occupation sequence.

Recommendations for 31 Ed 31

The site has been previously disturbed by plowing, sand borrowing and residence construction. The distribution of surface materials lies outside the Corps of Engineers construction area and the site is clear of any impact from such activity.

Site 31 Ed 32

Approximately 500' (150 meters) west of 31 Ed 31 is an irregular ridge of Pactolus loamy sand, the lower slopes of which are overlain on all sides by soils of the poorly drained Leaf series. On the higher elevations

(50'-52') in the center of the ridge is site 31 Ed 32 (Figure 2). Smallest of the three sites, it is approximately 80 meters in diameter. When collected in December, 1974, the site supported only a sparse growth of grass which had matured following the 1974 crop harvest. The western margin of 31 Ed 32 is approximately 100 meters east of the Deep Creek flood plain.

The cultural material collected from the loose sandy soil was not abundant, and this site has experienced the same deep plowing as the others. There is probably little stratigraphy present, but test excavation is necessary to confirm or deny this.

Surface Collection

Survey and collection at 31 Ed 32 involved the same procedures discussed for the preceding sites.

Projectile Points: 3 gray quartzite points were recovered from the site surface (Table 3); they are classified as a Palmer (Figure 11e), an atypical Morrow Mountain II with straight base (Figure 11d), and a point which, in terms of general shape attributes might fit the Yadkin "eared" type, but probably belongs in another classification. This point (Figure 11f) has a ground base, and exhibits considerable basal thinning, attributes which generally occur on types dated much earlier than Yadkin. In other current research, points of this type with fluting and basal thinning have been found to have a relatively extensive distribution in the Coastal Plain of North Carolina. Previous studies have also recorded this type (Crawford 1966: 72-73, Fig. 12 e-f). For the moment, it seems prudent to withhold a type classification and simply state that the attributes of these points indicate a late Paleo-Indian or transitional Paleo-Indian/Archaic time range.

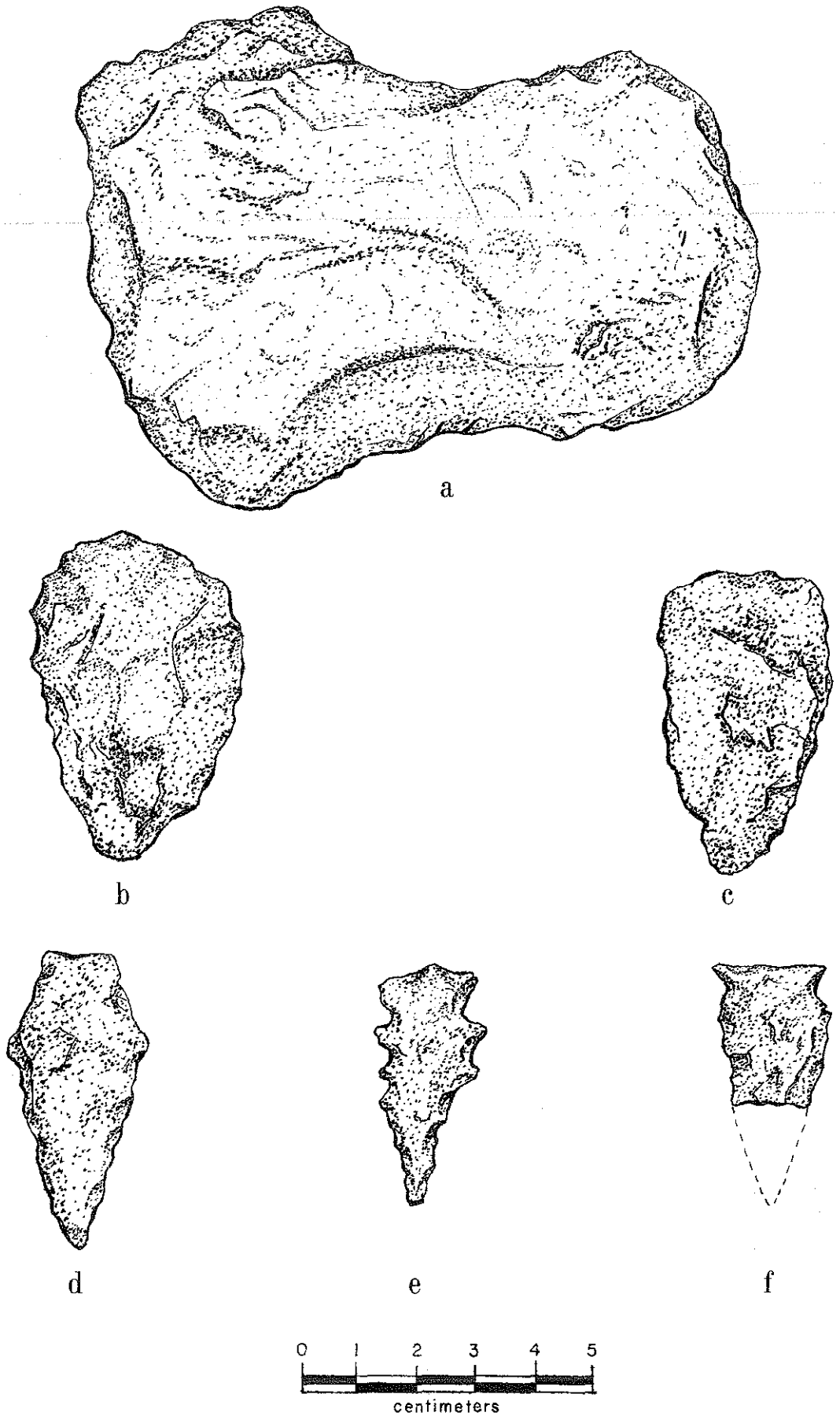

Figure 11. Artifacts from 31 Ed 32. Slate "hoe" (a), blades (b-c), atypical Morrow Mountain II point (d), Palmer point (e), and a basally-thinned point (f). (All actual size; dotted lines represent conjectural reconstruction.)

Blades: Two complete and 4 fragmentary blades of quartz and quartzite were found. The complete blades, one ovate-trianguloid, the other triangular, are illustrated in Figure 11b and c, respectively.

Hoe or pick: The tool illustrated in Figure 11a was made from a core of green slate by percussion flaking; the notches were rudimentarily chipped and show subsequent wear from attachment to a handle. The bit or blade end appears to have worn smooth on one side only, such wear being characteristic of hoes or picks; the opposite end is bulbous and unworn.

Grinding stones: Two complete and one fragmentary milling stones of quartzite all show typical abrasive wear on one or more flattened surfaces.

Cores: Three cobbles (1 quartz, 2 quartzite), from which flakes have been removed, were reclaimed.

Spalls: A random sample (156) of quartzite, slate, rhyolite and quartz flakes from tool production was selected from the surface.

Historic materials: Locally-produced brick fragments, lumps of coal, mortar, slag and fragments of glass were included in the collection. It is obvious that the coal and slag in this site as well as 31 Ed 29 and 31 Ed 31, relate to the historic proximity of the railroad east of the sites.

Ceramics: Table 2 presents the frequency of particular pottery types in the collection. The temporal and typological range is the same as that for 31 Ed 29. The single fiber tempered sherd may have had punctated surface decoration, but the surface is too eroded to make this certain.

Cultural Sequence

The following components were present, as identified from the surface collection, at 31 Ed 32:

Paleo-Indian/Archaic Transition:

The single projectile point of undefined type may belong to this time period, ca. 8000-9000 B.C.

Archaic Stage:

Palmer: 7000 - 8000 B.C.

Morrow Mountain: 3500 - 4500 B.C.

Woodland Stage:

Early Ceramic Component I: The steatite and fiber tempered sherds are diagnostic of the period 1000 - 2000 B.C.

Early Ceramic Component II: The sand tempered ceramics with similar frequency distribution to the specimens from the other two sites. Only simple stamping and plain are absent from 31 Ed 32, and that may be the result of sampling error; 1000 B.C. - A.D. 1.

Recommendations for 31 Ed 32

This site will not be impacted by the Corps of Engineers proposed construction since it does not infringe upon the Deep Creek flood plain. Clearance from such impact is recommended.

The site should be tested for possibility of stratified materials, however, and care should be taken to insure protection until such time as tests can be conducted. This is not the responsibility of the Corps of Engineers.

TABLE 2. CERAMIC FREQUENCY DISTRIBUTION;
SITES 31 Ed 29, 31 Ed 31, and 31 Ed 32

Types	31 Ed 29	31 Ed 31	31 Ed 32
Steatite	2	1	1
Fiber tempered plain	5		1
Steatite tempered plain		1	
Steatite tempered simple stamped	1		
Sand tempered cord marked	133	35	39
Sand tempered simple stamped	5	2	
Sand tempered net impressed	7	3	1
Sand tempered cord-dowel	6	5	5
Sand tempered plain	1	2	
Unidentifiable	140	21	52
TOTAL*	303	71	99

*Total includes all material from surface and test excavations at 31 Ed 29; and surface only from 31 Ed 31 and 31 Ed 32.

TABLE 3. PROJECTILE POINT FREQUENCY DISTRIBUTION;
SITES 31 Ed 29, 31 Ed 31 and 31 Ed 32.

Types	31 Ed 29	31 Ed 31	31 Ed 32
Un-named bassally ground type			1
Palmer	2		1
Kirk corner notched	1	1	
Morrow Mountain I	2		
Morrow Mountain II	13		1
Guilford	2	1	
Halifax	*		
Savannah River	1		
"Small stemmed"	2		
Yadkin triangle		1	
TOTAL **	23	3	3

*Present only in private collection from site.
**Total includes both surface and test excavation specimens from 31 Ed 29; other sites produced surface specimens only.

CULTURAL-ENVIRONMENTAL SUMMARY

The three prehistoric sites reported herein, 31 Ed 29 (Parker site); 31 Ed 31, and 31 Ed 32, and the modern town of Speed are located on the lower elevations of the western end of a peninsula formed by the flood plain of Deep Creek and two of its tributaries, Long's Branch and Knight Swamp. The peninsula is an eroded remnant of the local highlands with a maximum elevation of around 90 feet above sea level each of Speed; from highway N. C. 122 westward, including Speed and the three archaeological sites, surface elevations are 60 feet, or less, above sea level, sloping westward to the normal stream level (50 feet) of Deep Creek. This latter area has been subjected to extensive flooding from Deep Creek and its tributaries in modern times, stimulating the proposal of a flood control dike system by the U. S. Army Corps of Engineers. The problem of seasonal flooding may have considerable antiquity, and had the original founders of the modern town possessed this information, they probably would not have located here for permanent residence.

Speed and the three archaeological sites are situated primarily on north-south trending ridges of loamy sands separated by sloughs of loamy soils. The sandy ridges are typical terrace deposits originally associated with higher sea stands of the Pliocene and earlier times. The erosion of troughs between the ridges with their deposit of loamy and organic soils is probably related to periodic flooding subsequent to the original formation.

Of the three prehistoric sites, 31 Ed 29 presents the most complete cultural record, due primarily to more research time expended there, but all were more or less contemporaneously occupied. Occupation probably began just prior to 8000 B.C. on the lower of the sites, 31 Ed 32, as evidenced by the basally ground point with basal thinning assignable to the period of transition between the Paleo-Indian and Archaic stages. In the Archaic stage, 8000 - 2000 B.C., all three sites show evidence of continuous (31 Ed 29) or

sporadic (31 Ed 31, 32) occupation. It is probable that all phases of the Archaic were present on all sites, and that sampling error accounts for the lack of such evidence. The Archaic was a time of small, seasonal habitation sites located to take advantage of the particular fannal and floral resources in specific micro-environments. The data indicate that such was the situation on these three sites; in none is the quantity of specimens from a single component sufficient to presume more than occasional seasonal habitation by a small group of people.

The Woodland stage begins around 2000 B.C., with the introduction of ceramic technology and, presumably, the first knowledge of plant domestication following shortly thereafter (1000 B.C.). The earliest ceramics in North America, identified by the addition of vegetable fibers to the potter's clay, are represented in the collections from 31 Ed 29 and 31 Ed 32. Their companion vessel type, stone containers produced from steatite, occurs on all three sites. These vessel data, plus the small, stemmed points indicative of Archaic-to-Woodland transition in projectile forms, constitute the evidence for our Early Ceramic Component I.

The final prehistoric occupation of the three sites was by the Early Ceramic Component II, dating generally between 1000 B.C. and A.D. 1 (estimated dates). This Woodland occupation presumably occurred during the time of initial introduction of domesticated plants, and knowledge of new ceramic techniques from both south and north. The coarse sand-tempered pottery, finished with cord, net and cord-dowel impressions is indicative of the latter influence; the simple stamped surface finish, accomplished with carved paddles, was derived from the south. Small stemmed points probably continued to be made, and the large, triangular Yadkin type made its first appearance during this time. Again, however, the settlement distribution

evidence indicates no real increase in size of sites or number of people over that experienced in the Archaic stage; the sites were still probably seasonal, and more oriented toward hunting and gathering of wild plant foods.

Around A.D. 1, or the first century of our era, there was an abrupt end to human use of these sites; they were not utilized again until the establishment of American culture in the Speed community during the 19th century. The evidence of historic occupation may have included a small residence on 31 Ed 32, so interpreted because of the wide variation of materials from that site, but most of the historic specimens refer to farm-related activities, such as broken field dinner dishes, warming and blacksmith fires, farm implements and trash pits.

The occupation evidence from these sites suggests possible conclusions concerning their selectivity in relation to the environment. The conclusions should be considered tentative, however, until tested elsewhere in similar situations with more quantitative and qualitative data.

1. The prehistoric occupations of sites 31 Ed 29, 31, and 32 occurred first during a period of intensive hunting and gathering, the Archaic stage, when the Deep Creek and tributary flood plains would have been most productive in providing a variety of animal and plant foods. The habitations were located on the highest elevations of sandy ridges adjacent to the flood plain, in sandy soils which supported an open woodland growth. (The remains of tree roots at the 45 cm. level in Square C, 31 Ed 29, tend to support this.) Soil fertility was not important to that natural food-gathering economy, but proximity to stream channel would have been. The subsequent Woodland occupations occurred during a time in which the knowledge of plant domestication was probably in its infancy, and therefore not an important factor in subsistence

if known at all in this region. The period from 1000 B.C. to A.D. 1 appears to have been a trial time for plant domestication, and it is after that period that agriculture becomes a major factor in subsistence. The historic use of the sites for agriculture is relatively recent, and feasible only through modern farming technology utilizing drainage, fertilizer, and other aids to productivity. Even so, the 1974 corn crop on the western ridge of 31 Ed 29 stood no higher than three feet at maturity because of the low moisture retention of the soil.

2. Until historic times (19th century), the sites were not selected for agricultural purposes. The fertility and moisture properties of the Pactolus loamy sand (31 Ed 29 west ridge and 31 Ed 32), the Lakeland loamy sand (31 Ed 31), and Kenansville loamy sand (31 Ed 29 northeast ridge) are generally unproductive without modern fertilization and irrigation practices, a fact borne out by the 1974 crop. The prehistoric sites were located on these soils because of their elevation (52' to 59' above sea level) rather than their agricultural potential. When agriculture became a major subsistence factor after A.D. 1, sites were located elsewhere. Only population pressure and economic considerations during the American historic period forced utilization of the sites for this purpose.

3. The Deep Creek active channel between 8000 B.C. and A.D. 1 probably flowed close to the eastern margin of the flood plain, just west of 31 Ed 32, then turned eastward along the southern edge of 31 Ed 31 and west of 31 Ed 29. Geological studies of channel changes are non-existent and would be necessary to confirm this hypothesis, but site location would have favored a nearly adjacent flowing stream. Aerial photos indicate abandoned channels occupying such a position, thus offering both food resources and transportation (small

boats, canoes) during the periods of occupation. This would not have been a factor considered when the historic community of Speed was established since adequate land transportation was already developed.

4. The problem of flooding in this locality is a relatively recent phenomenon. Sea level has been rising since the last glacial maximum, but would not have been sufficient to cause major site flooding until after 2000 B.C. It may be that site abandonment after A.D. 1 was partially related to this phenomenon, but this is doubtful since occupation appears to have been seasonal and could therefore, be selective. The major flooding of modern times is certainly related to the vast areas of cleared land throughout the Deep Creek watershed which permit rapid run-off in periods of intensive rain.

5. In planning land-use models and practices, the total record of human use and occupation of an area can be most beneficial in predicting feasibility and adaptability to particular situations.

SUMMARY RECOMMENDATIONS

The primary project recommendations have been previously stated in the discussion of site 31 Ed 29, but are here reiterated and incorporated with other more general, recommendations for this and the other sites.

1. Test excavations (Squares A and B) at 31 Ed 29 produced negative cultural evidence and confirm that proposed construction of a dike and other channel modifications to Long's Branch will not disturb or infringe upon the Parker site, 31 Ed 29. Clearance from such impact is recommended for the proposed construction.

2. In planning such projects in the future, considerable time and money may be saved if archaeological surveys can be performed, as this one

was, in the late Fall and Winter months when vegetation growth is nil or minimal. The difference in information in this report as opposed to the original survey is due, in part, to the fact that the fields were barren and understory growth in the wooded areas seasonally dormant when the present field study was performed. Normally, project planning begins sufficiently in advance to permit seasonal planning, and this should incorporate the archaeological and historical aspects of impact surveys.

3. Test Square C revealed that some stratigraphic context remains in site 31 Ed 29, and precautions should be taken to insure protection until such time that further study can be accomplished. This is not the responsibility of the Corps of Engineers, but the property owner and pertinent archaeological personnel.

4. Sites 31 Ed 31 and 31 Ed 32 were unknown at the onset of this project, being identified and recorded as a result of reinvestigation of the general project site vicinity. While they have produced valuable cultural information, the sites will not be affected by the Deep Creek flood control project. It is recommended that they be cleared from archaeological and historical impact by that project.

ACKNOWLEDGMENTS

The author is most grateful to Mr. Lloyd A. Tyndall, the U. S. Army Corps of Engineers project engineer, for his assistance in providing information and acting as liaison with the people of the Speed community. His understanding of the archaeological problems of this project allowed us to obtain important information which would otherwise have been neglected. It was also a pleasure to have his company during the field operations.

My thanks are offered to Mr. William Parker, owner of the property on which the sites are located, for permitting us to excavate and survey as we chose. His knowledge of the area considerably aided the site interpretation.

James and Mitchell Eakes of Speed made their artifact collection available to us for study and photography, thus adding a further dimension to the surface data.

Thanks are also due the personnel of the U.S.D.A. Soil Conservation Service Tarboro Field Office for providing current soil data and a soil map of the Speed locality.

The following East Carolina University archaeology students participated in various phases of the project; they are commended for an excellent performance. Robert Cande, Jerry Hilliard and George Shannon performed most of the test excavations and surface survey at 31 Ed 29, aided on occasion by Martha Rountree, Sarah Goodnight and Shelly Bencini. The preliminary survey of 31 Ed 31 was performed by Goodnight and Cande, with a more comprehensive follow-up by the author and Peggy S. Phelps, who also surveyed 31 Ed 32. Artifact illustrations in this report were done by Susan L. Moye.

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ARCHAEOLOGICAL SURVEY OF THE STONEY CREEK WATERSHED, WAYNE COUNTY, NORTH CAROLINA

Prepared for The
Archaeology Section
Division of Archives and History
North Carolina Department of Cultural Resources
and The
Soil Conservation Service
United States Department of Agriculture

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ABSTRACT

The Soil Conservation Service, U. S. Department of Agriculture, has planned flood control improvements in the Stoney Creek watershed near Goldsboro, Wayne County, North Carolina. These will include channel modification along the main stream east of Goldsboro, and the construction of Multiple Purpose Structures on each of the three Stoney Creek headwaters tributaries. The structures, designated 2R (Northwest branch), 39 R (North-central branch), and 3R (Northeast branch) consist of earthen dams and spillways which will impound lakes designed for both flood control and recreation.

In July and August, 1974, East Carolina University performed an archaeological survey of the Stoney Creek watershed to determine the impact of the proposed construction upon archaeological and historical resources.

The study resulted in location and recording of twenty-three archaeological sites in addition to thirteen previously recorded on Stoney Creek. The sites range in age from ca. 9000 B.C. to 1865 A.D., and include large seasonal base sites as well as small camps, farmsteads and a Civil War fortification. The settlement distribution is typical of small lateral Coastal Plain streams.

Six of the sites will be impacted by either dam construction or inundation, but all have been previously disturbed by other activities to the extent that they are no longer significant and will not require mitigation of impact. On one site a modern cemetery may have to be moved out of the pool level.

INTRODUCTION

The Soil Conservation Service, United States Department of Agriculture, has planned a flood control project for Stoney Creek, east and north of Goldsboro, Wayne County, North Carolina. Prior to project construction, an archaeological survey was required by federal regulations governing environmental impact, specifically on archaeological and historical resources. The Soil Conservation Service contracted with the Archaeology Section, North Carolina Division of Archives and History, for the required study. The latter agency in turn sub-contracted East Carolina University to perform the archaeological survey of Stoney Creek (award date July 15, 1974).

Requirements of the study, as outlined in the Technical Specification for the project, included (1) a determination (by field survey) of the existence of archaeological resources, (2) recording and identification of located resources, (3) an evaluation of project impact on authenticated resources, and (4) recommendations and estimates for mitigation of impact as necessary. The study incorporated two phases: Phase I consisted of location and recording of significant sites within the project area and a summary of field techniques used in their identification, culminating in a Field Report immediately upon conclusion of the on-site survey. This report was submitted on August 20, 1974 (Phelps 1974) and is attached hereto as Appendix A* The field report tentatively recommended clearance from impact on cultural resources. Phase II consisted of cultural resources analysis sufficient to appraise the significance of sites, evaluate the impact of project construction on sites, and recommend mitigation and costs as required. The Phase II final report is submitted here in fulfillment of the contract.

* The Field report was deleted in this publication.

The study began on July 15, 1974, with previous research review and project organization. Field work was performed between July 18 and August 15. Due to excessive rain in the first two weeks of August, some sites were re-surveyed during late August and early September. Analysis of data began during the field research period, but due to the large number of specimens, a full cultural analysis was not completed until January, 1975. Final report preparation began subsequent to the analysis.

The study was directed by the author, assisted by Jimmy G. Justice (Field Supervisor) and George W. Shannon, Jr. Susan L. Moye prepared the artifact illustrations.

Project completion required 72 man-days, including background and library research (9), field work (35), processing and analysis (18), drafting (4), report preparation and writing (6).

PROJECT DESCRIPTION AND ENVIRONMENT

The Stoney Creek watershed (Figure 1) lies in central Wayne County, in the upper Coastal Plain of North Carolina about 40 miles east of the Piedmont fall line. Stoney Creek is a lateral tributary of the Neuse River, which it joins south of the City of Goldsboro. The upper creek and its three headwaters tributaries drain an area of Norfolk-Goldsboro-Aycock association of loamy and clayey soils (Barnhill, et al 1974) lying east and northeast of Goldsboro, probably derived from the Yorktown sediments of the Miocene. The lower section of the creek drains Cretaceous deposits (Pusey 1960). It is an area of relatively smooth uplands with an average elevation of 120 to 130 feet above sea level. In its upper reaches, the Stoney Creek floodplain averages 90 to 100 feet in elevation, grading downward to approximately 60 feet near its confluence with the Neuse River.

Northeast of Goldsboro, the Stoney Creek system drains an area of primarily agricultural land use. Except for the floodplain, very little vegetative cover exists, and farm residences are scattered along the road systems, interspersed now with growing suburban development. From the point where the three headwaters tributaries meet, the creek flows southward on the east side of Goldsboro. South of the Southern Railway and the U.S. 13-70 Bypass, the creek flows through a residential area (Adamsville) and then past Seymour-Johnson Air Force Base. This area has been subjected to heavy flooding, and was the subject of a Corps of Engineers flood control study (U. S. Dept. of the Army 1972). That study indicated flooding possibilities (normal project floods) well into the edge of residential areas, and during the field portion of this study, such a condition was noted in August, 1974, near Adamsville. The Corps flood control study did not extend north of the U.S. 13-70 bridge over Stoney Creek.

The Soil Conservation Service flood control project which is the subject of this study proposes the construction of three dams which will impound water on the upper courses of the three headwaters tributaries (Figure 1). These are designated Multiple Purpose Structures, indicating both flood control and use of the impounded lakes for recreation, and numbered 2R (northwest branch), 39R (north central, or Stoney Creek, branch) and 3R (northeast branch). The pool level in the proposed lakes will be approximately 115 feet elevation (MSL). The other planned construction is stream channel modification southward from the railroad bridge for a distance of about 2.5 miles.

Specific requirements of this study were directed toward intensive survey of approximately ten miles of channel and margins which would be inundated. A secondary effort concerned a reconnaissance of the entire course of Stoney

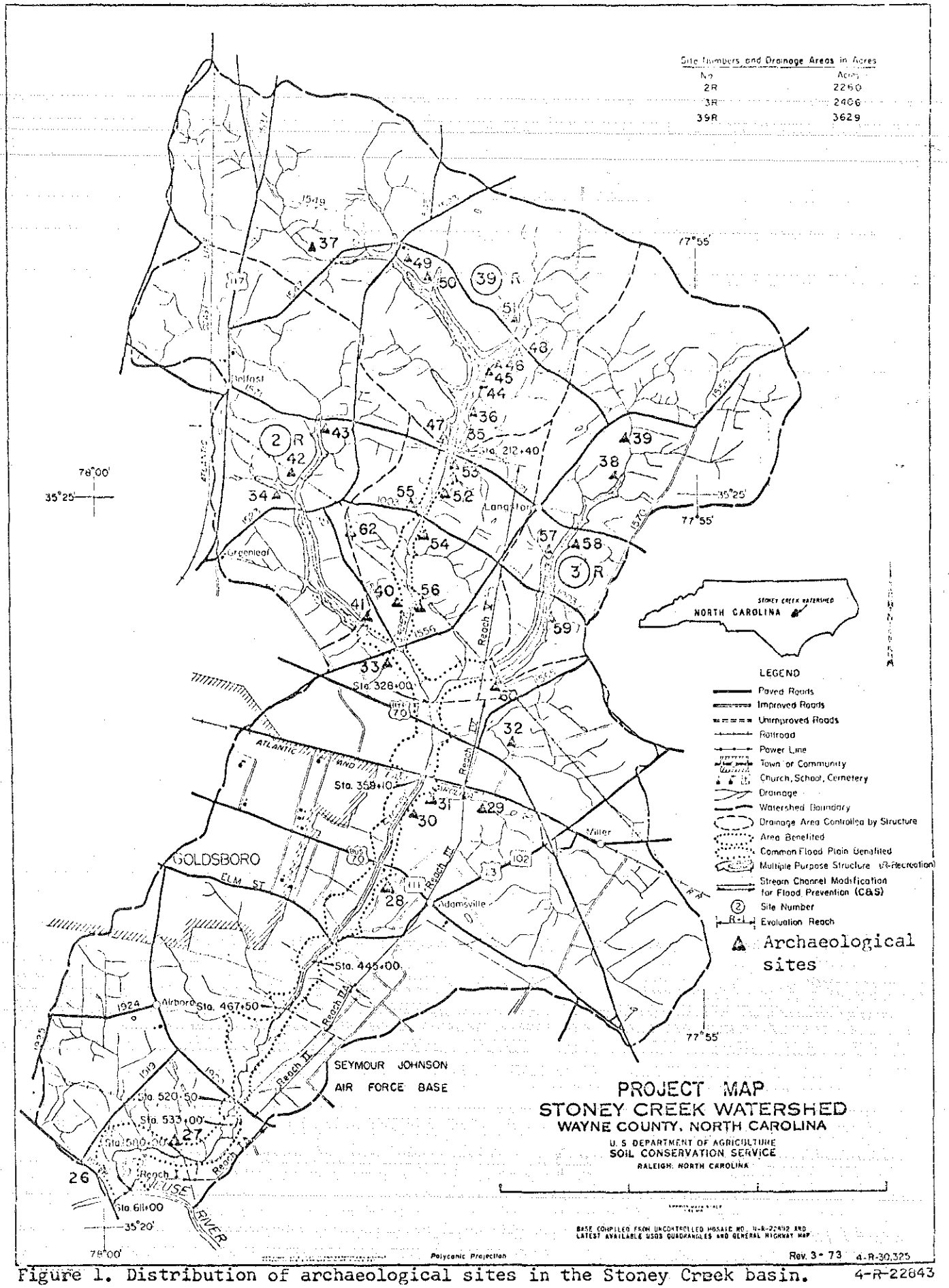


Figure 1. Distribution of archaeological sites in the Stoney Creek basin. 4-R-22843

Creek in order to provide more sufficient cultural data. The procedures used and their results are discussed below.

RESEARCH METHODS

This study began with a review of the Soil Conservation Service project maps, aerial photos, and technical specifications, and correlation of these with the U. S. Geological Survey Quad (Goldsboro, 7.5' series, 1957) and current N. C. Department of Transportation map for Wayne County. The project area was defined, survey procedures and access routes planned, and necessary equipment and supplies assembled.

A review of the Wayne County file of the North Carolina Archaeological Survey to determine previously recorded sites in the project area was accomplished, and these sites were plotted on the project maps. Site collections were studied and notes made on their temporal-cultural affiliations. The National Register of Historic Places was checked for sites in the project area and general histories and environmental data were compiled and referenced.

The on-site survey was performed in July and August, months during which crops are maturing, the soil has not been recently turned along the rows, and grass and weed cover are most luxuriant. This situation seriously limited the survey team's ability to observe site boundaries and obtain adequate collections, since the majority of the project area outside the floodplains is crop land.

The survey began with a field check of previously recorded sites along Stoney Creek both within and downstream from the project impact zone. New collections from these sites were obtained and data collected to fill in information gaps on extant site forms. This completed, a systematic on-foot survey of the floodplains and margins, proposed dam sites, and immediately adjacent uplands along all three branches of Stoney Creek to be affected by

the project was accomplished. When sites were located, a careful walk-over was done to measure surface distribution of specimens or other features, collections were made, environmental notes taken, and impact potential evaluated. Where necessary, photos were taken and information elicited from local inhabitants. The sites were recorded on standard North Carolina Archaeological Survey forms. A precursory survey of the Stoney Creek basin below the project zone was also accomplished to fill in distribution gaps and enhance cultural explanation for the entire drainage system.

During the field study, laboratory work included the processing and cataloging of specimens, compilation of site data, and preliminary analysis. All specimens and data were cataloged into the permanent collections of the Archaeological Research Laboratory, East Carolina University, where they are part of the public records of North Carolina. Following completion of field work, the Field Report was prepared and submitted and final analysis of data begun. This included correlation of previous collections with those from this study, and comparative analysis with other localities. Maps and illustrations were prepared, and report writing accomplished after a final evaluation of impact on the recorded sites.

PREVIOUS RESEARCH

No formal archaeological studies had been done in the Stoney Creek project area prior to this survey. The Wayne County file of the North Carolina Archaeological Survey at the University of North Carolina-Chapel Hill listed a number of sites in other sections of the county but none on Stoney Creek or in the immediate area of Goldsboro.

In collections of the Archaeological Research Laboratory, East Carolina University, were specimens from a number of sites in Wayne County, donated

to the Laboratory by a former East Carolina University student and native of Goldsboro, Ronald O. Brock. Mr. Brock (now Captain, U.S.A.F.) had worked with the author on archaeological projects for a period of eight years, and became one of the author's most trusted field supervisors prior to acceptance of an Air Force commission. Brock had recorded the sites informally in the 1960's and collected them for some years. These sites were given formal numbers, standard survey forms completed for them and the collection analyzed. They included 12 sites on Stoney Creek (31 Wy 26-38), 5 of which lay within the project impact zone, and encompassed a time range from about 8000 BC to 1700 AD. The specimens from the Brock collection were incorporated with our own collections in the field analysis of the sites.

A general ethnohistory of the Tuscarora Indians (Pascal 1953), in whose former tribal territory Stoney Creek lies, is available but no specific references are made to the project area.

Similarly, a general history of Wayne County (Daniels 1914) is of little value for project area particulars. Settlement of the area by European colonists began after 1720 AD, and the county was established in 1779 AD. Goldsboro became the county seat in 1848 AD and has grown to be the major commercial and political center.

Civil War activities in the area were extensive (Long 1971), and Goldsboro served for a while as a Federal headquarters. The one site of that period located by the survey could not, however, be specifically documented.

A recent land potential study lists the Stoney Creek area as primary agricultural, but recommends its primary potential use in the future as residential expansion as Goldsboro extends its limits (N. C. Div. of Comm. Planning 1967). The survey team noted that this situation has already begun in some sections of Stoney Creek.

A general chronology of the prehistory and history for the project area is summarized below.

TABLE I. CULTURAL-HISTORICAL CHRONOLOGY

Period	Dates
Paleo-Indian	ca. 10,000 - 8000 BC
Archaic, early	8000 - 5000 BC
middle	5000 - 2000 BC
late	2000 - 1000 BC
Woodland, early	1000 - 300 BC
middle	300 BC - 800 AD
(Tuscarora) late	800 - 1720 AD
Colonial	1720 - 1780 AD
Federal	1780 - 1830 AD
Antebellum	1830 - 1860 AD
Modern	1860 - present

RESULTS OF THE STUDY

Thirty-six archaeological sites, ranging in age from about 9000 B.C. to 1865 A.D. have been located and recorded in the Stoney Creek basin and its immediate environs. Of these, nineteen are located along the sections of Stoney Creek which will be modified by dam construction and lake impoundment.

The total of thirty-six sites includes the thirteen recorded prior to this study (31 Wy 26-31 Wy 38), five of which were in the Multiple Purpose Structure zones. The remaining twenty-three previously unknown sites were recorded as a direct result of this study; these are 31 Wy 39-31 Wy 60 and 31 Wy 62 (site 31 Wy 61 is not in the Stoney Creek area). Fourteen of these are in the Multiple Purpose project area.

Site distribution in the Stoney Creek basin is shown in Figure 1, and the sites discussed below according to their locations on the various segments of the drainage system. Artifacts collected from the sites are summarized

in Tables II, III and IV, and site sequence tabulated in Table V.

Main Channel and Laterals

Sites 31 Wy 26 through 31 Wy 32 are located along the main channel and its small laterals between the U. S. 13-70 By-pass and the Neuse River. The Soil Conservation Service improvements along this segment include only channel modification for flood prevention which will not impact any of the sites.

These sites were originally recorded by the Brock survey, and field checked during the present study. 31 Wy 26 had been destroyed by sand borrowing between 1962 and 1970; 31 Wy 27 produced only a few spalls and crop cover (corn) was too dense to determine its dimensions or age; 31 Wy 28 lies in the Adamsville residential area and has been destroyed by home construction. 31 Wy 29 is on the south bank of a lateral which parallels the Southern railway; it is four meters above the floodplain in a field plowed extensively for some years. 31 Wy 30 and 31 Wy 31 may have once been parts of the same site, but both are now covered with residential development and an accurate assessment of site size was impossible. These sites are on a 10-meter terrace above the floodplain, at the confluence of Stoney Creek and a lateral tributary, a location which, with their occupation record, indicates a very favorable environment throughout the prehistoric period. 31 Wy 32 is on the next lateral north of that on which 31 Wy 29 is located; it is situated at the confluence of two headwaters tributaries of the lateral, at an elevation of five meters above the floodplain. Its occupation record also argues for favorable subsistence factors over a long period of time.

Sites 31 Wy 30-31 and 32 span the entire prehistoric period from late Paleo-Indian through late Woodland. The former is represented by the small fluted or basally-thinned points with ground bases and slight constrictions

which may be considered a step toward notching near the base. These points have a wide distribution in the Coastal Plain, and in some attributes resemble small Hardaway points. They may be the eastern equivalent of the specialized small Hardaway and are here temporarily referred to as "Paleo-Indian Transitional" pending a type definition. A range of these points from sites 31 Wy 30, 33, 42, 44 and 48 is shown in Figure 2 (a-i).

Another significant cultural element at 31 Wy 29, 30 and 32 is the presence of fiber tempered ceramics. This ware has occurred at other sites within the Neuse and Tar drainages (Phelps 1975: 20) although so far in minor quantities. It appears that this distribution represents the most northern extent of fiber-tempering and the specimens are practically inseparable from the type Stallings Plain. Typical sherds from 31 Wy 32 and 33 are illustrated in Figure 7.

Northwest Branch

Five sites are located on the Northwest Branch of Stoney Creek; 31 Wy 34 was recorded in the Brock survey and the rest (31 Wy 41, 42, 43, 62) during this study. Sites 31 Wy 34, 42 and 43 are situated on higher elevations above the pool level of Multiple Purpose Structure 2R and will not be impacted by construction and flooding. Site 31 Wy 41 will be impacted by dam and spillway construction for 2R and is discussed in more detail below. All of these sites are in agricultural fields and have long since lost their stratigraphy to plowing.

31 Wy 62 is away from the project area and is recorded here to provide some reference. The site consists of a series of three earthern breastworks, probably gun positions, located northwest of S.R. 1555 about midway between the Northwest and North Central branches of Stoney Creek. The positions

were constructed to face north and apparently relate either to the Confederate defenses of Goldsboro, or the Union fortifications subsequent to the city's capture by those forces. No specific reference could be found for this particular emplacement, but local collectors and Civil War buffs are quite knowledgable of the site and have practically destroyed it.

North Central Branch

Eighteen sites are located on the North Central Branch, the longer and more densely occupied of the three headwaters streams. Four of these (31 Wy 33, 35-37) resulted from the Brock survey and were re-checked; the others (31 Wy 40, 44-56) were located by this study. Sites 31 Wy 33, 40 and 52-56 lie along the flood plain margins downstream from Multiple Purpose Structure 39R and will not be affected by its construction. All others are located upstream from the dam but, with the following exceptions, are above the pool level for Structure 39R.

31 Wy 35 will be partially destroyed by dam construction on the east side of 39R. 31 Wy 47 will be similarly impacted on the west side of that structure. Sites 31 Wy 44-45 occupy the same field system east of the branch and the lower western sides of these sites will be partially innundated by normal pool level. The Strickland family cemetery at 31 Wy 45 will probably be similarly affected. Site 31 Wy 51 similarly occupies a relatively low area and will be partially flooded by the proposed lake.

Northeast Branch

Site 31 Wy 38 (Brock survey), 39 and 57-60 (current study) are located along the Northeast Branch of Stoney Creek. 31 Wy 60 is downstream from Multiple Purpose Structure 3R and will not be affected by construction;

TABLE II. LITHIC ARTIFACTS

Sites	31 Wy 26	31 Wy 27	31 Wy 28	31 Wy 29	31 Wy 30	31 Wy 31	31 Wy 32	31 Wy 33	31 Wy 34	31 Wy 35	31 Wy 36	31 Wy 37	31 Wy 38	31 Wy 39	31 Wy 40	31 Wy 41	31 Wy 42	31 Wy 43	31 Wy 44	31 Wy 45	31 Wy 46	31 Wy 47	31 Wy 48	31 Wy 49	31 Wy 50	31 Wy 51	31 Wy 52	31 Wy 53	31 Wy 54	31 Wy 55	31 Wy 56	31 Wy 57	31 Wy 58	31 Wy 59	31 Wy 60	31 Wy 62
Projectile Points																																			
Paleo-Indian Trans.					2		2	1									1		1				1												
Hardaway						1																													
Palmer					2	1		2																1											
Kirk corner n.					3	1	1	3									1				1			1								1	1		
Kirk stemmed					5	2	2	5															1										1		
Stanly						1				1																									
Morrow Mtn. I				1	2	1			1							1			1								1					1		1
Morrow Mtn. II	1			2	4	3		5		2											1		1	1										
Guilford					2		1							1			1	1				1	2												
Halifax						2																													
Savannah River				1	3			5	2	2				1					1				1											1	
Large cont. stem.								6													1													
Small stemmed							2																												
Woodland triangle				11		2	11		1	2					1	2		1	2			1	3	1											
Fragments					24	1	15	17	1		1			1			1								2	2						1	1		
Blades			1	16	96	3	51	41	2	5	7	2		7		5	1		4						1			1	2						
Blanks				7														1			1					1								1
Scrapers	1			27		1	1		6	4	8			6	4	1			2	2			10			1			2		1			
Drills			1	4	1	1	2	1																						1				
Net sinkers								1																											
Celts										1																									
Gorgets				1	1											1							1											
Milling stones								3		1											2							1					1		
Hammerstones					1		2		2		1				1		2						2								1				
Abraders																																			
Cores										3						3					1	2										1			
Spalls										10		5		33	8	10	4		16	4	1		3	21	2	3			1	13			2		

TABLE III. CERAMICS

	31 Wy 26	31 Wy 27	31 Wy 28	31 Wy 29	31 Wy 30	31 Wy 31	31 Wy 32	31 Wy 33	31 Wy 34	31 Wy 35	31 Wy 36	31 Wy 37	31 Wy 38	31 Wy 39	31, Wy 40	31 Wy 41	31 Wy 42	31 Wy 43	31 Wy 44	31 Wy 45	31 Wy 46	31 Wy 47	31 Wy 48	31 Wy 49	31 Wy 50	31 Wy 51	31 Wy 52	31 Wy 53	31 Wy 54	31 Wy 55	31 Wy 56	31 Wy 57	31 Wy 58	31 Wy 59	31 Wy 60	31 Wy 62
Steatite				1	2			1													1														
Fiber-tempered, plain				1	2		2	19																										
Sand-tempered, plain				22	52	2	16	6	2	7	4	5		6												1				5	2			3	
simple stamped							5									3					1														
net impressed					7		7	4						1																					
cord marked				37	63		63	30	3		6	6				6			3		2		1	1		2	2	2	3					1	
fabric imp.				18	38		58	10				2			1	3			12	7	3		3			1			1	7	3			2	
incised					1																														
punctated (rim)					1																														
Clay-tempered, plain				4																															
net impressed																																			
cord marked				4	8		5																												
fabric imp.				7	1		4																												
Grit-tempered, plain				11			13			3																									
net impressed				1			8				2																								
cord marked				75	48		48	16																											
fabric imp.				17	22		69	2		1	1	1														2									
Residual				83	133		152	11			7			11					10	5			2	2					1					1	

TABLE IV. HISTORIC ARTIFACTS

Sites	31 Wy 26	31 Wy 30	31 Wy 33	31 Wy 34	31 Wy 35	31 Wy 44	31 Wy 48
Kaolin pipes, stem	1						
bowl		1					
Common brick							2
Cartridge cases (.30 & .45 cal.)					4		
Coal (anthracite)						4	
Fossil shell & marl*			1	1		2	

*Historic use as lime for fields.

31 Wy 39 is upstream beyond the limits of the proposed pool. The other sites, 31 Wy 38 and 57-59, lie on the flood plain margins above the proposed pool level.

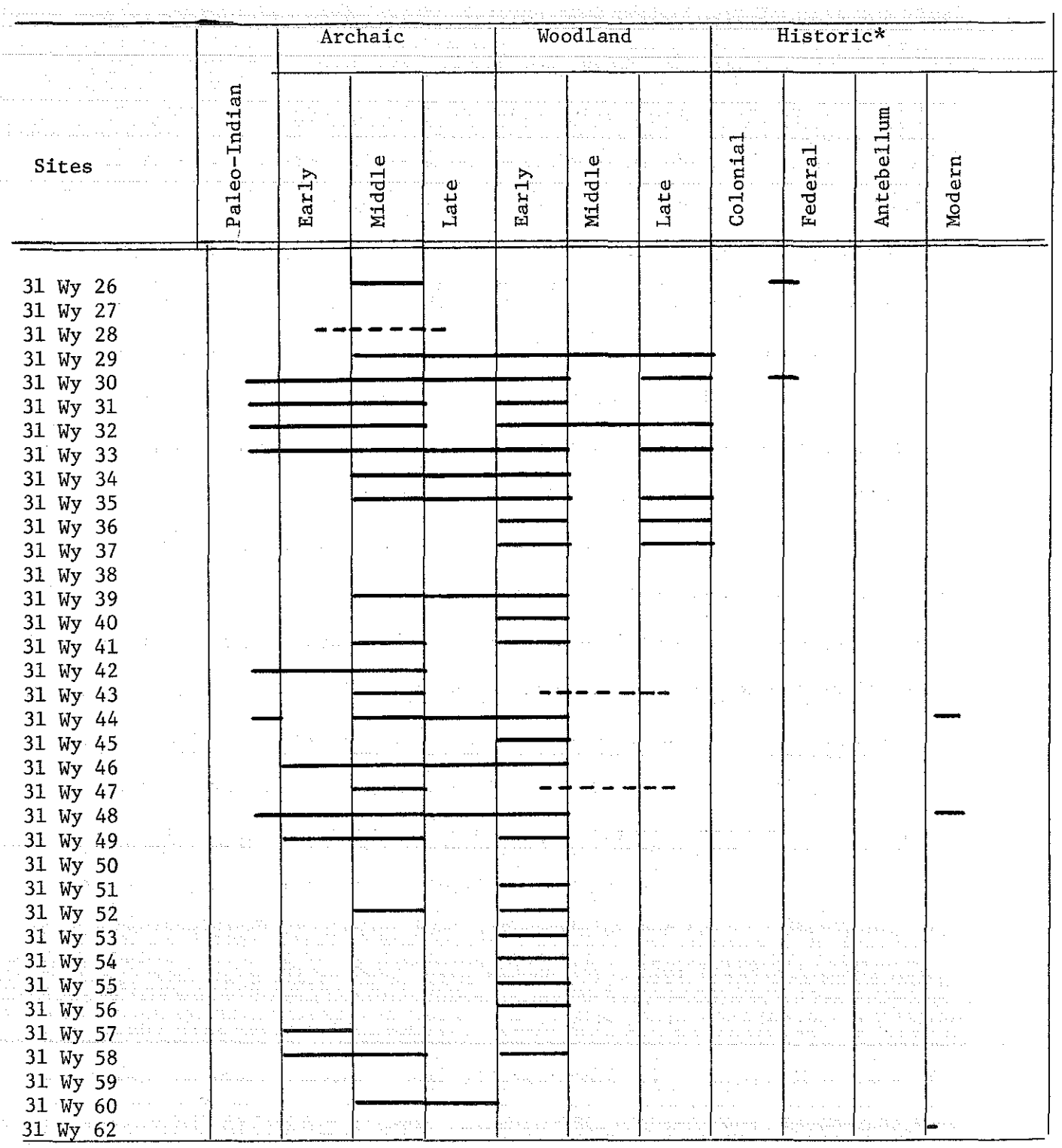
CULTURAL SUMMARY

Stoney Creek is a typical small lateral tributary of a major Coastal Plain trunk stream, the Neuse River. With its headwaters in the Piedmont, the Neuse has an ample flow, carries a large sediment load and periodically inundates its floodplain and immediate environs. Near Goldsboro, the Neuse has an old age, well-defined floodplain, and this condition also applies to its tributary laterals, such as Stoney Creek. Traditionally, major settlements (both prehistoric and historic) have occupied higher, stable elevations along the river, and smaller satellite sites of varying human use have been situated along the laterals. This community pattern appears to be valid for all cultures up to very modern times (within the past 100 years), although specific reasons for settlement location will have varied through time, dpenedent upon subsistence, technology, and other factors.

The thirty-six sites along Stoney Creek are typical of settlement distributions on lateral streams in the upper Coastal Plain. All are located on relatively well drained soils above the normal floodplain margin, with larger, longer occupied sites usually situated at stream confluences. In all cases, the locations offer an advantage of ecotone boundary (stream-floodplain-uplands) subsistence resources for hunting-gathering groups, and arable soils for agriculturalists. In the latter case however, there is some evidence for a reduction either in settlement size or in number of settlements in late Woodland and Colonial times which might relate to soil fertility.

Settlement density also seems typical of such streams systems, particularly in the upper reaches of Stoney Creek. Our survey intensity was directed toward

TABLE V. SITE OCCUPATION SEQUENCE



*Most sites have experienced historic agricultural use.
--Indicates tentative assignment based on inadequate collection.

the immediate project area along the three headwaters branches and did not study the main channel to the same extent. Also, urban development below the U.S. 13-70 By-pass is rampant and has to some extent obliterated site evidence. Compared to an on-going study of Thoroughfare Swamp, another Neuse tributary southwest of Goldsboro, the Stoney Creek site density is approximately equal in numbers of small sites per mile.

Known occupation of Stoney Creek began about 9000 B.C., in the late Paleo-Indian period with the establishment of seven small hunting camps (31 Wy 30, 31, 32, 33, 42, 44 and 48) (Table V). These camps have been identified by the typical projectile points of that period of transition from Paleo-Indian to Archaic culture types; these are the Paleo-Indian transitional points (Figure 2, a-i) and the Hardaway point.

These sites were re-occupied during the Archaic period and new sites established at fourteen other locations (Table V). The twenty-one sites with Archaic components had a maximum use intensity beginning in middle Archaic times and continuing through the early Woodland period. The Archaic components were identified by the sequence of projectile points typical of that period. For the early Archaic these are Palmer (Figure 2 j-l), Kirk corner-notched (Figure 3 a-d) and Kirk stemmed (Figure 3 e-j). Middle Archaic points are Stanly (Figure 3 k), Morrow Mountain I (Figure 4 a-c) and II (Figure 4 d-h), Guilford (Figure 5 a-b) and Halifax. The late Archaic is characterized by Savannah River points (Figure 5 c-d) and a large contracting-stemmed type (Figure 4 i-k) which appears from surface evidence to cluster with the Savannah River type. In the late Archaic, fiber-tempered ceramics (Figure 7) were introduced, supplementing the steatite vessels already in use.

In the early Woodland period, nine new sites were occupied and only one previously used site was abandoned (Table V). The early Woodland hallmarks are the sand-tempered ceramics (Table III) with surface finishes of cord, fabric and net impressions, and minor techniques of simple-stamping and incising. The small stemmed points (Figures 5 e-f), a presumed carry-over from the late Arcnaic, are also typical of early Woodland. Middle and late Woodland points are the triangular types shown in Figure 5 g-l and Figure 6 a-o, and ceramics are the clay and grit tempered series (Table III). A range of Woodland ceramics is illustrated in Figures 8 and 9. By late Woodland times, site occupation in Stoney Creek had dropped to only nine sites from the previous early Woodland maximum of twenty-nine. Late Woodland would have been a time of maximum dependence on agriculture and it is possible that soils were not sufficiently fertile without fertilizer to support large populations, or there was a change in settlement patterns. The data from this study are insufficient to answer that question.

After the Tuscarora War (1711-12), the Stoney Creek area was available for Colonial expansion. However, only two sites (31 Wy 26 and 30) produced evidence datable to the Colonial and Federal periods, both in the form of kaolin pipe fragments typical of those periods.

Site 31 Wy 62 was a Civil War gun battery and was thereafter abandoned. All other use of the sites in Modern times has been primarily agricultural, some with nearby residences and family cemeteries. The area is now converting slowly from agricultural use to surburban residence, and the lakes to be developed by the Soil Conservation Service will no doubt enhance such development.

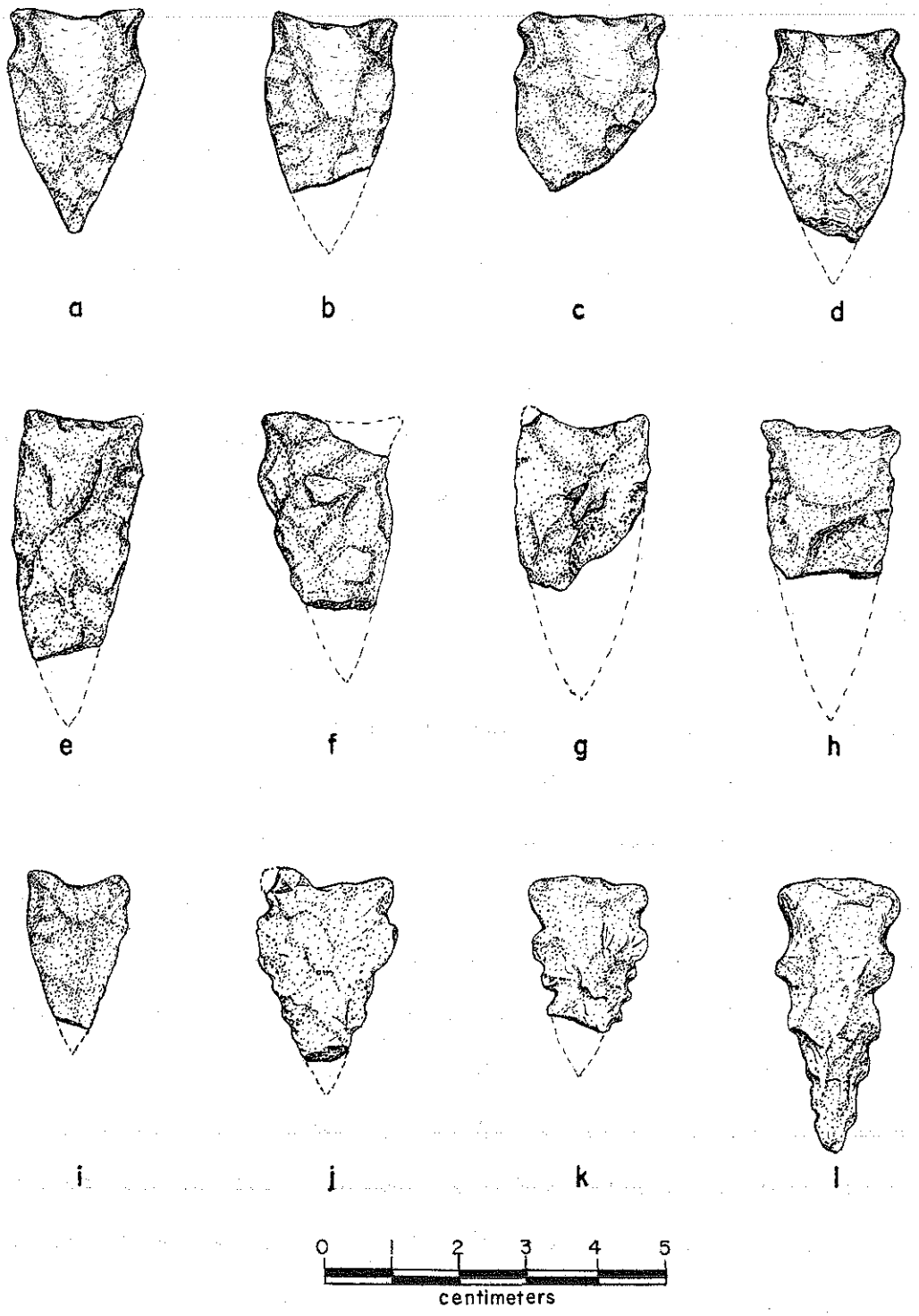


Figure 2. Projectile points: Paleo-Indian transitional type (a-i); Palmer (j-l). All actual size.

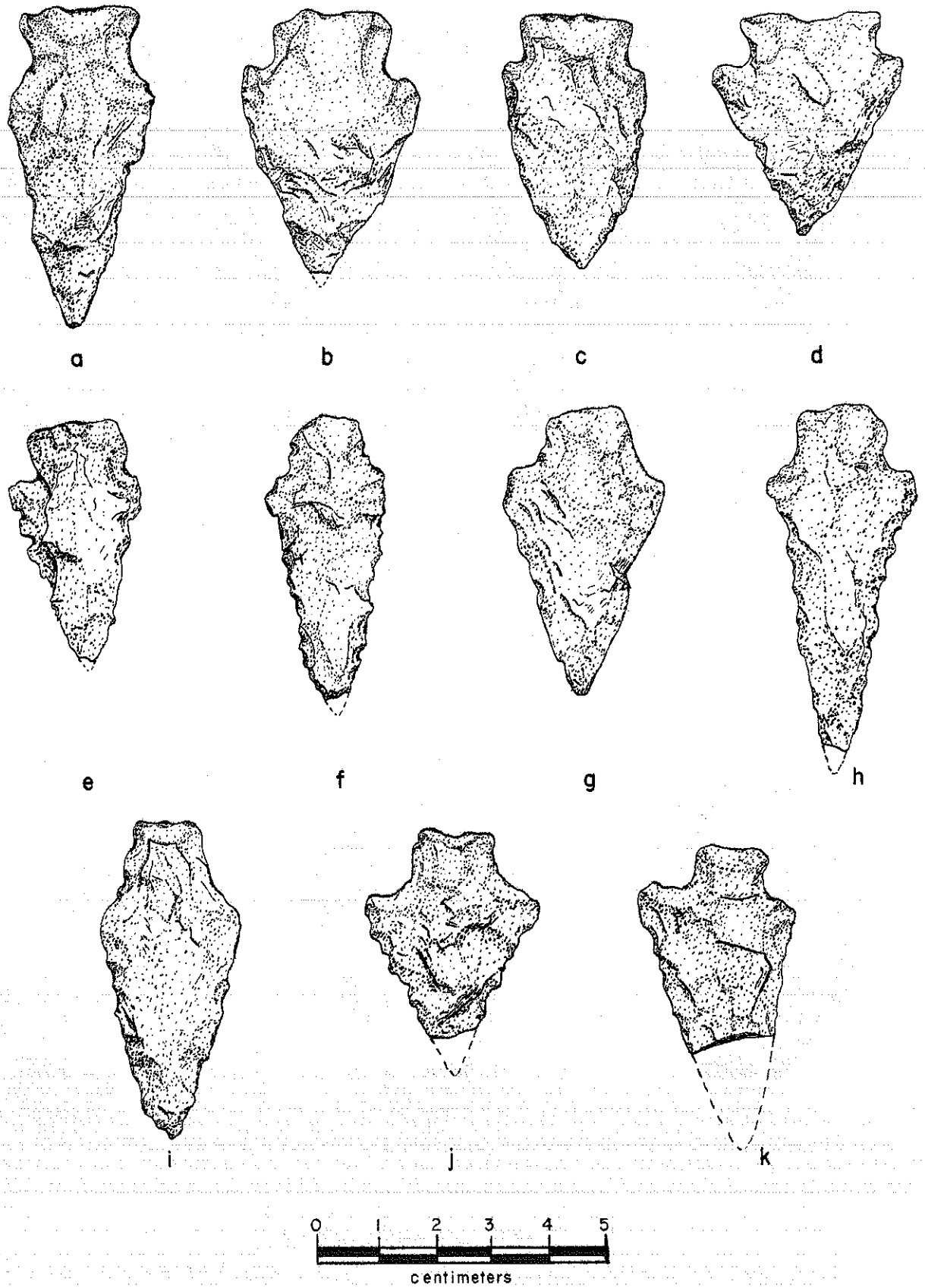


Figure 3. Projectile points: Kirk corner-notched (a-d); Kirk stemmed (e-j); Stanly (k). All actual size.

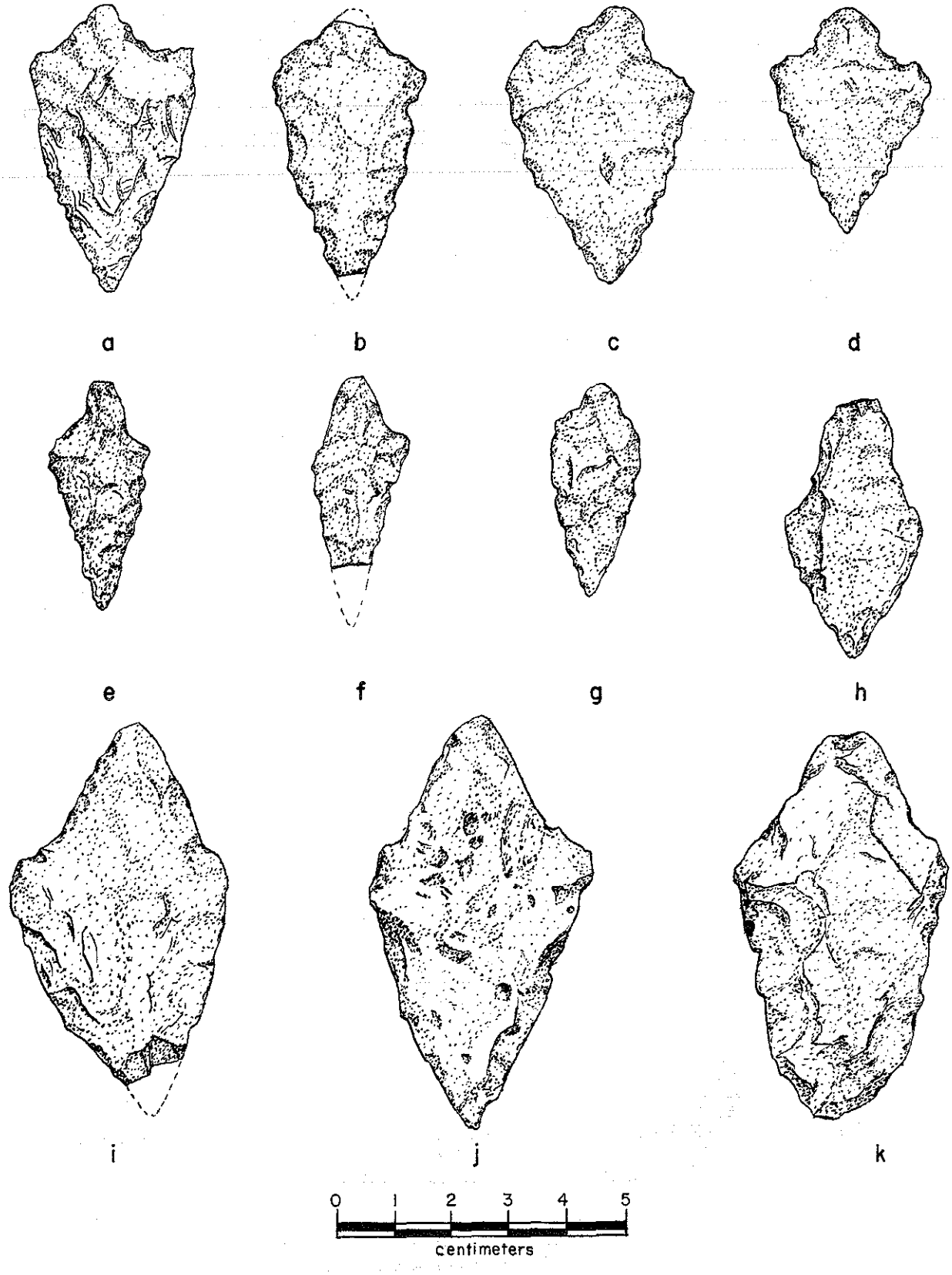


Figure 4. Projectile points: Morrow Mountain I (a-c) and II (d-h); large contracting-stemmed type (i-k). All actual size.

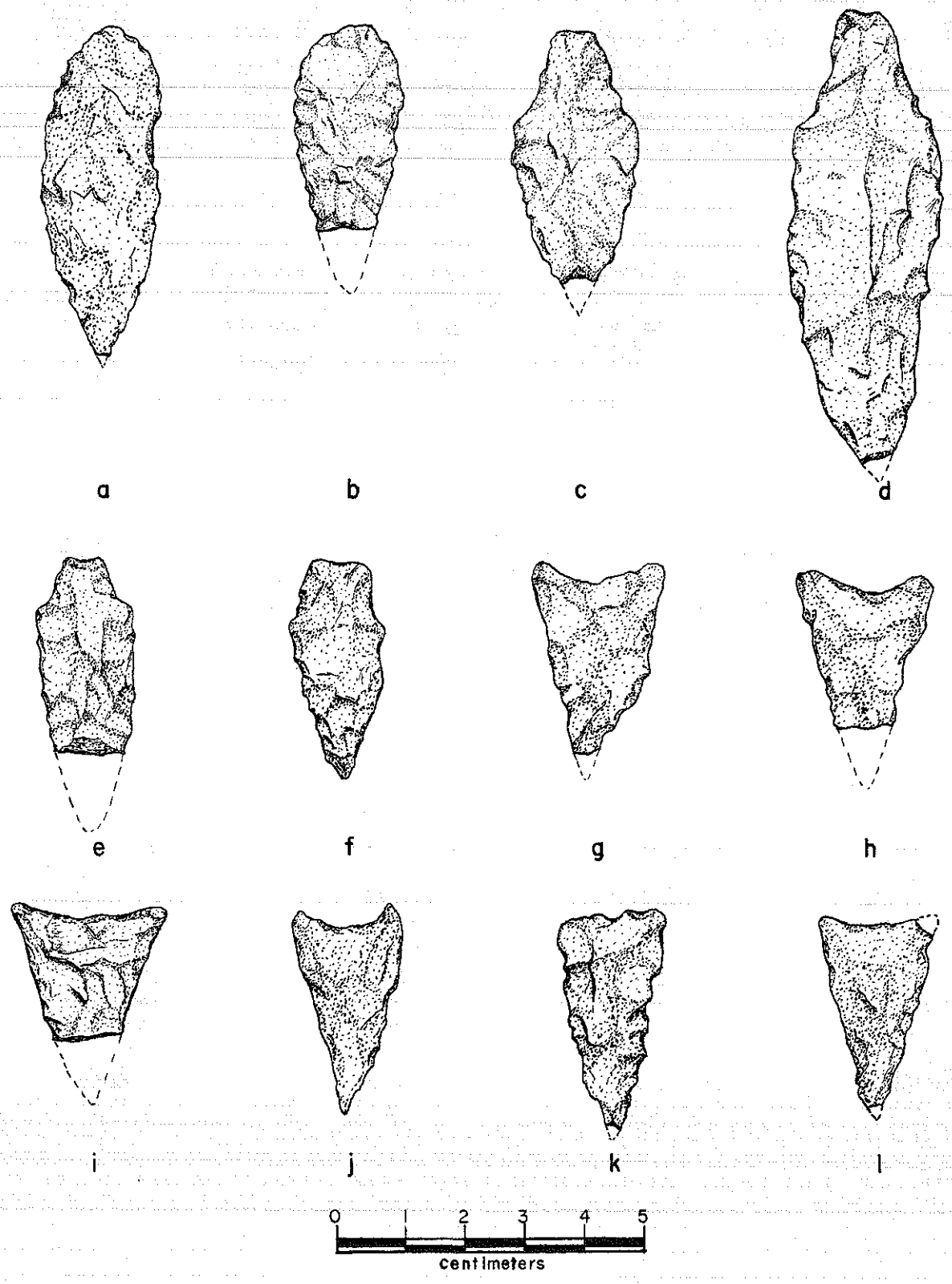


Figure 5. Projectile points: Guilford (a-b); Savannah River (c-d); small stemmed type (e-f); early and middle Woodland triangular type (g-l). All actual size.

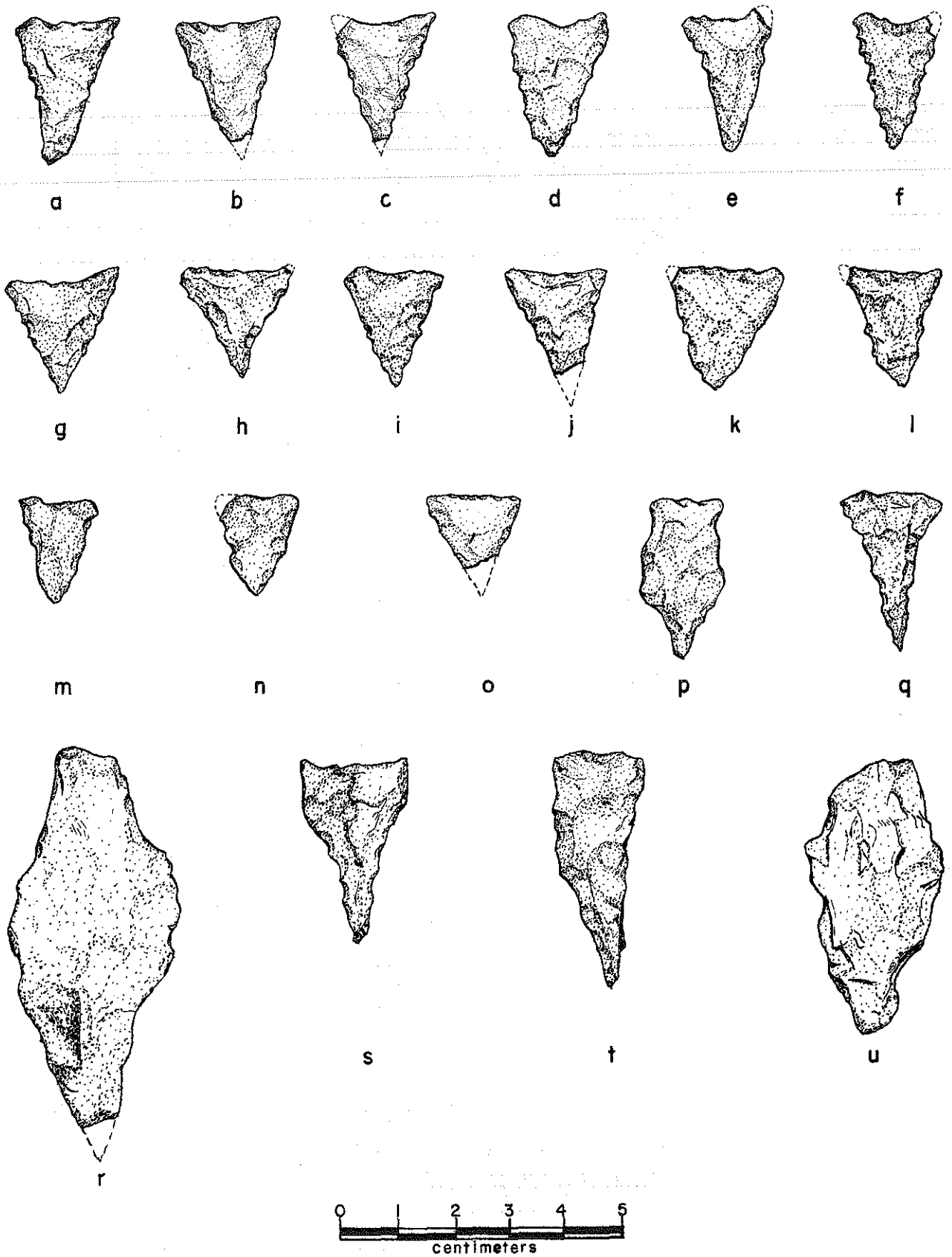


Figure 6. Projectile points: Late Woodland triangular type (a-0). Drills (p-u). All actual size.

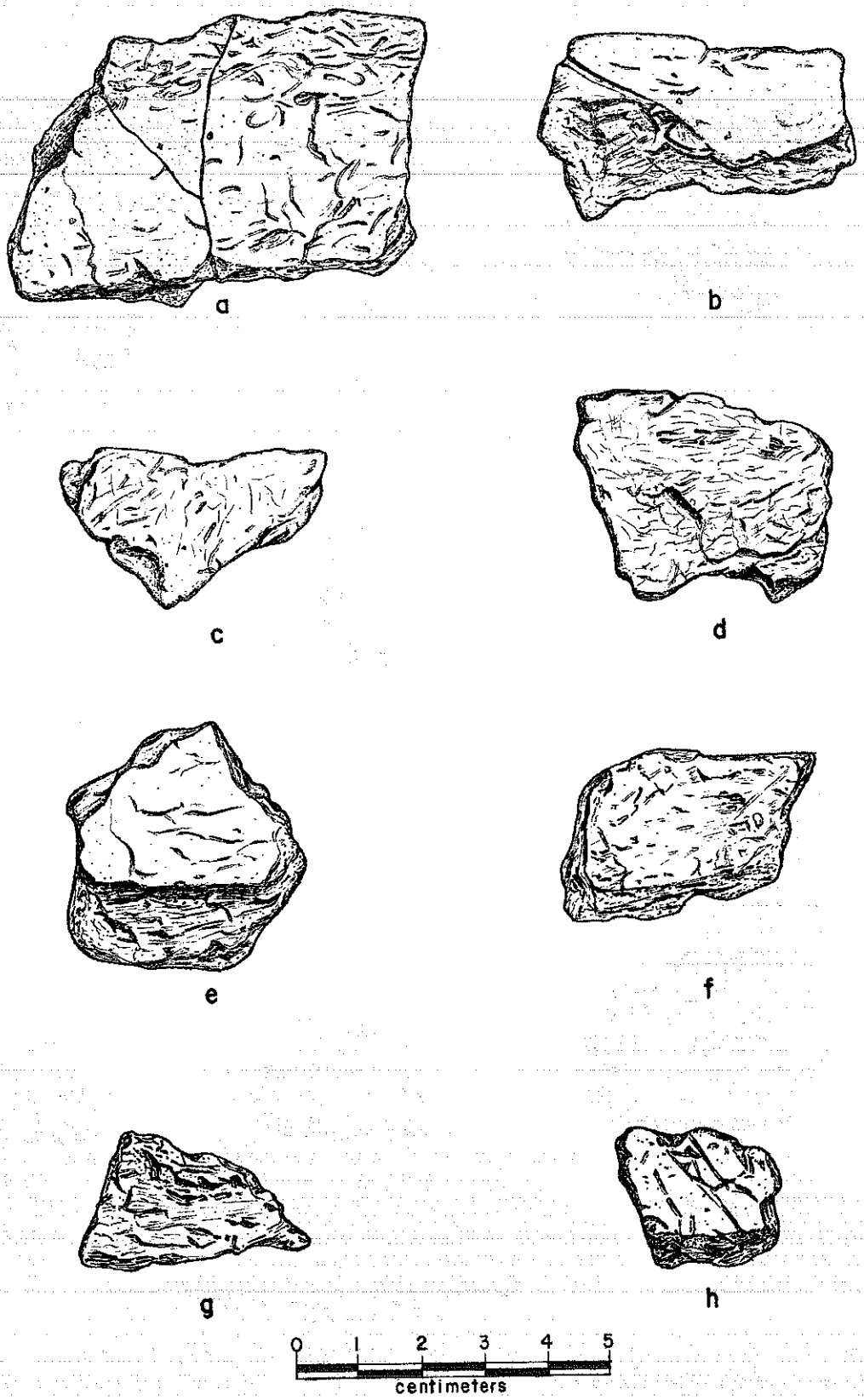


Figure 7. Fiber-tempered plain ceramics from sites 31 Wy 32 and 31 Wy 33. All actual size.

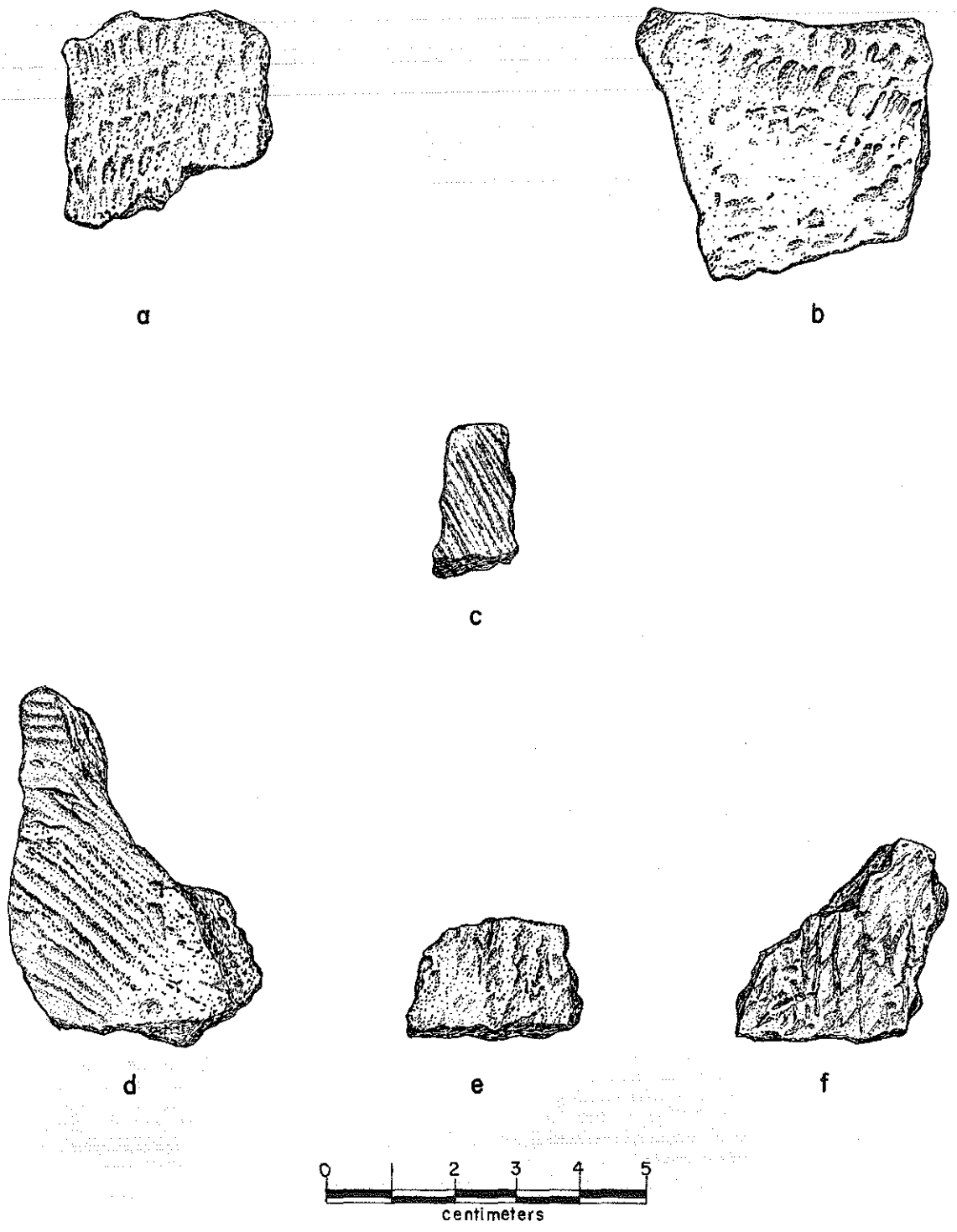


Figure 8. Fabric impressed (a-b) and cord-marked (c-f) ceramics. All actual size.

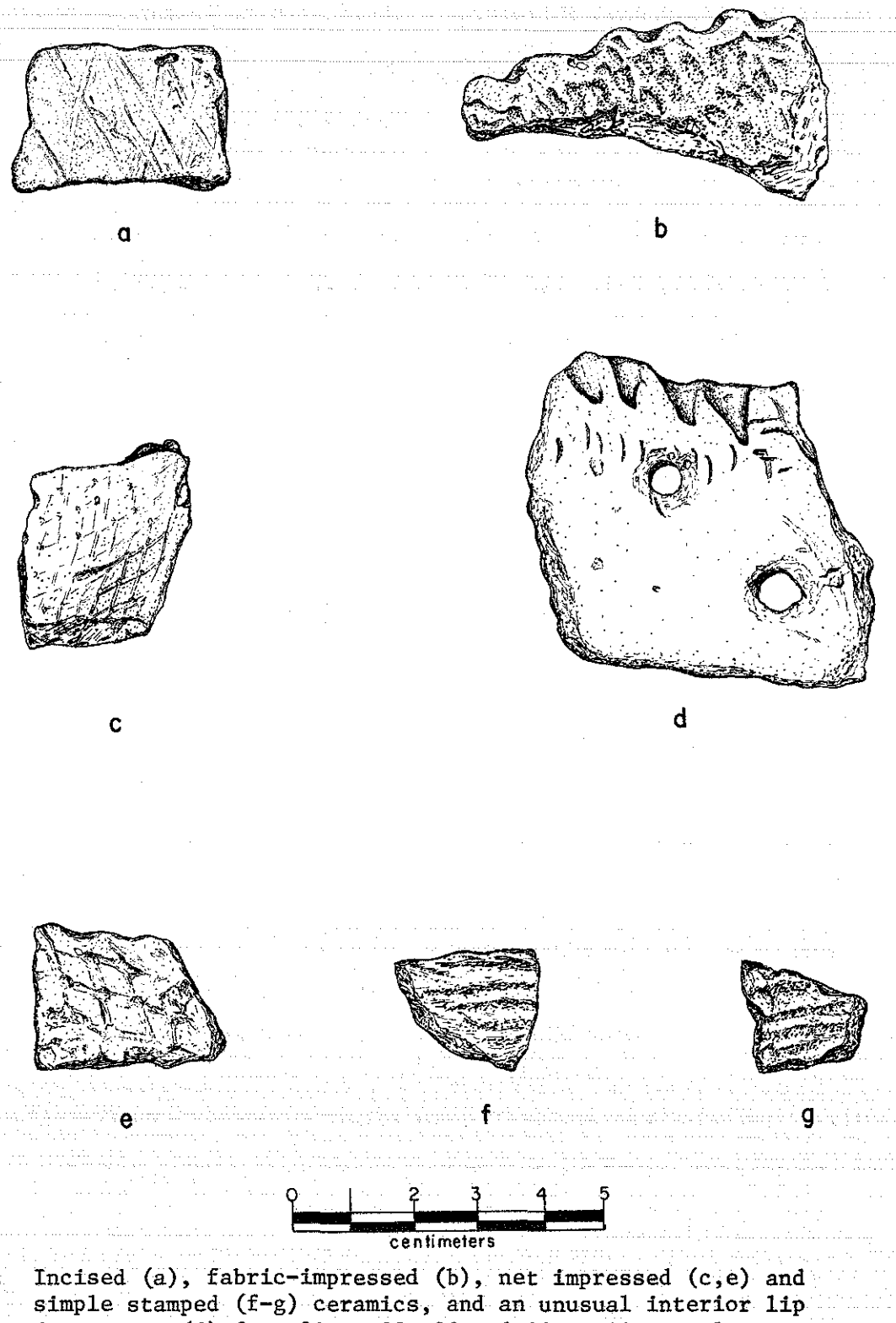


Figure 9. Incised (a), fabric-impressed (b), net impressed (c,e) and simple stamped (f-g) ceramics, and an unusual interior lip decoration (d) from 31 Wy 29, 30 and 32. All actual size.

Some Factors Affecting Cultural Analysis

Two factors will have influence on the foregoing cultural summary, which is necessarily based on data currently available.

The first is survey intensity, previously alluded to; the main channel of Stoney Creek has residential, air base and other developments on its margins, and was outside the immediate project area. For these reasons the sample of sites along that segment of the creek is not adequate and therefore not directly comparable with the sample above U.S. 13-70 By-pass.

Second, the large collections from sites 31 Wy 29-33 result from Brock's collection of these on a number of occasions under favorable surface conditions and prior to destruction. During the time of our survey, ground and crop cover were maximum, and in most cases, one visit to a site was all that project time permitted. There is, then, a difference in surface frequency distribution of artifact types which may not reflect the actual component representation or intensity on a number of the sites.

Four sites, 31 Wy 27, 38, 50 and 59 were recognized as prehistoric sites, but produced no specimens diagnostic for temporal-cultural assignment.

The information derived from this study is important, however, in furthering the comprehension of culture change, adaptation and settlement patterns in the Coastal Plain province of North Carolina.

SITE IMPACT

Six of the nineteen archaeological sites in the Soil Conservation Service project area will be impacted by construction or inundation. The six are described below and their impact status given in Table VI.

31 Wy 35 is a small site situated in a corn field on the property of Annie B. Best (property parcel 1), and will be partially destroyed by spillway

construction at SCS site 39R. The site lies southeast of the proposed earth dam and approximately 400 feet north of S.R. 1571. Materials collected during the survey include both Archaic and Woodland specimens, but the site appears to have been previously destroyed by plowing and erosion.

31 Wy 44 lies along the western slope of a sand ridge on property parcel 13, owned by Annie H. Gray. The major distribution of materials is below the maximum water line (115.3' elevation) but above permanent pool level of SCS site 39R. A plowing record of approximately 100 years, with resultant erosion, has probably destroyed all archaeological context. Artifacts on the surface were not numerous, but indicated an initial occupation during the late Archaic Savannah River phase and successive re-occupation through late Woodland times.

31 Wy 45 is located just north of 31 Wy 44 on an extension of the same ridge system as the latter, but separated from it by a hedgerow. This hedgerow marks the property line between the Gray property to the south and Parcel 14, owned by Robie Strickland. Site 31 Wy 45 lies partially on the Gray property but the bulk of the site is located on the Strickland land. Most of this site lies below the maximum water on the slope of the ridge toward Stoney Creek, but materials were both scarce and scattered. Erosion has been extensive, removing most of the archaeological context. Judging from the small collection of ceramics, the site was occupied during the middle Woodland phase. The Strickland family cemetery, dating as early as the mid-19th century, is located in a small grove of trees approximately mid-way between the maximum water line and the permanent pool level. The land on which the cemetery plot lies is approximately 18 inches to 2 feet higher than the surrounding field, thus indicating the degree of erosion in the plowed area.

Site 31 Wy 47 is located on property parcel 44 owned by Cora Pate Ray. Scattered materials came from the cornfield adjacent to the west side of the proposed spillway for 39R. The material collected was disappointing, but surface conditions were extremely bad due to the height of the corn crop and the extent of the ground cover of grass beneath it. In all probability, however, the site is now nothing more than a scatter of materials.

Site 31 Wy 51 is located within the wooded area and partially below maximum water level on the property of Harold W. Lancaster (parcel 17). Lots have now been sold and residences constructed here; one residence appears to be below the maximum water line. Materials were scarce, due in part to the heavy woods and undergrowth, but those collected from the road indicate little of significance.

31 Wy 41 will be partially destroyed by dam and spillway construction at SCS site 2R. The site is in a cornfield to the east of the proposed dam on the property of Robie Strickland (parcel 1). The size and condition of specimens collected from the site indicate a long record of destruction from agricultural activities leaving no context for the prehistoric remains.

TABLE VI. SUMMARY OF IMPACT

Site	Project segment	Type of Impact	Mitigation
31 Wy 35	39R	dam construction	none required
31 Wy 41	2R	dam/spillway const.	none required
31 Wy 44	39R	partial inundation	none required
31 Wy 45	39R	partial inundation	none required*
31 Wy 47	39R	spillway const.	none required
31 Wy 51	39R	inundation	none required

*Possible inundation of Strickland Cemetery mitigation required, but this is not the responsibility of this study.

RECOMMENDATIONS

The archaeological components of the six sites to be impacted by construction of dams and spillways, or by flooding of the resultant lakes have been previously disturbed by agricultural or other activities to the extent that they no longer contain significant or contextual data or remains. Clearance from impact is recommended for these sites.

The Strickland cemetery at 31 Wy 45 may be partially inundated by maximum pool level and steps should be taken to insure its safety or arrange removal to suitable location. This is not the responsibility of the archaeological study, but should be arranged by the Soil Conservation Service.

No standing structures of historical or architectural significance are located in the project construction zone, and no sites listed in the National Register of Historic Places will be affected by the project.

No steps for mitigation are required for the archaeological and historical resources recorded herein, with the possible exception of the cemetery noted above.

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