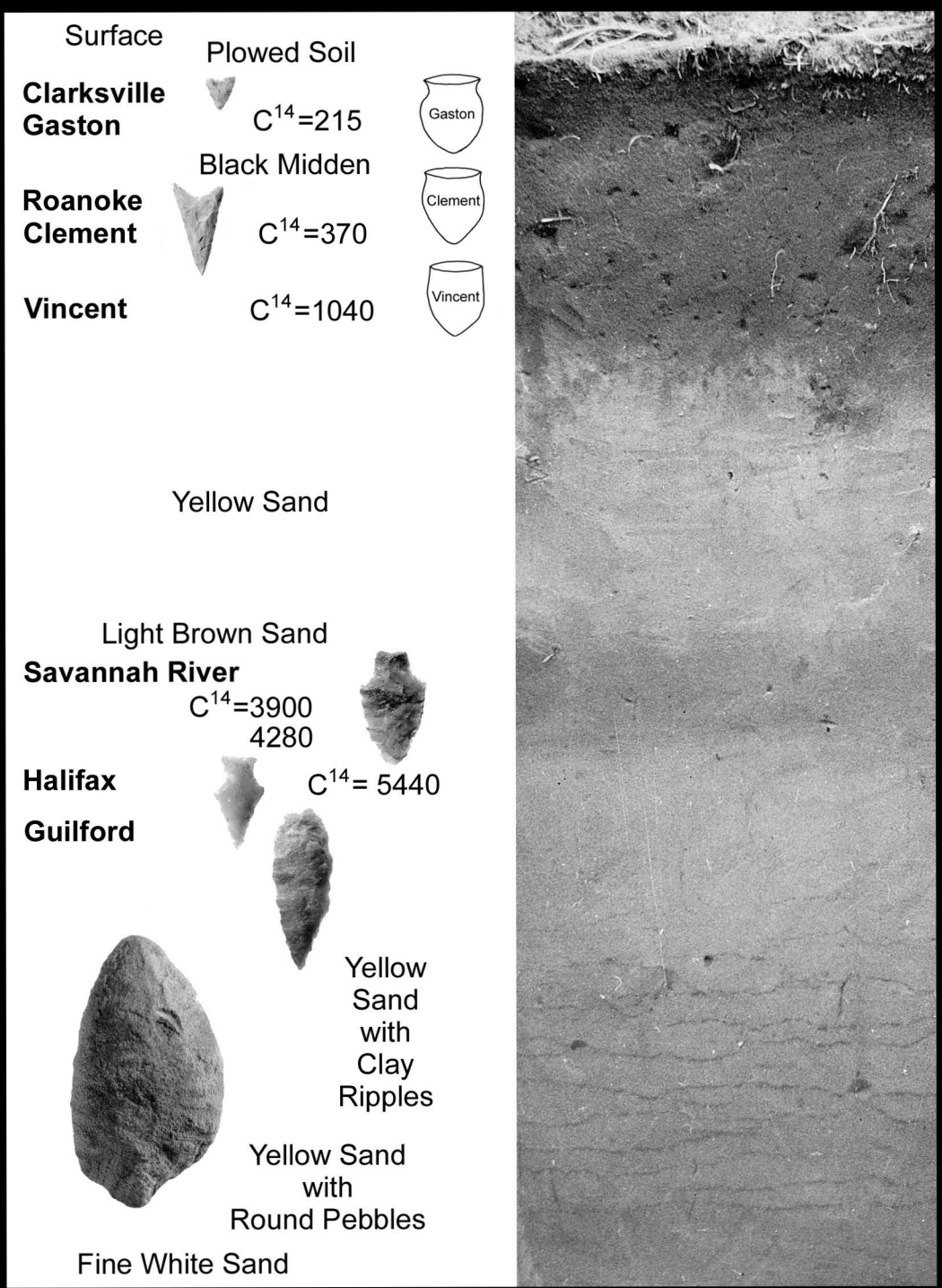
Archaeology on the Roanoke



Stanley South

Monograph No. 4
The Research Laboratories of Archaeology
University of North Carolina at Chapel Hill
2005

ARCHAEOLOGY ON THE ROANOKE

ARCHAEOLOGY ON THE ROANOKE

Stanley South

The University of South Carolina
The South Carolina Institute of Archaeology and Anthropology
Columbia, South Carolina

Monograph No. 4
Research Laboratories of Archaeology
The University of North Carolina
Chapel Hill

2005

ISBN 0-944913-03-2

Dedication

For Jewell South and Lewis Binford
who helped me gather the data.

TABLE OF CONTENTS

LIST OF FIGURES

Figure **Page**

LIST OF PLATES

Plate **Page**

LIST OF TABLES

Table **Page**

LIST OF MAPS

FOREWORD

by
R. P. Stephen Davis, Jr.

In 1955, archaeologists from the University of North Carolina at Chapel Hill (UNC) undertook a brief archaeological survey and salvage excavations within Roanoke Rapids Reservoir on Roanoke River in Halifax and Northampton counties, North Carolina. This hydroelectric power project of Virginia Electric and Power Company (VEPCO) involved the construction of a dam at Roanoke Rapids which created a nine-mile-long lake covering 4,900 acres.[1] Unlike modern reservoir projects which follow strict federal and state laws concerning the identification, evaluation, and mitigation of threatened environmental and cultural resources, reservoir projects in 1955 operated without any such requirements. Instead, the recovery of archaeological data, subsequent analysis, and reporting usually depended upon the cooperation and goodwill of industry and academia. Such was the case with the Roanoke Rapids Reservoir project.

A proposal to conduct archaeological investigations within the reservoir was not made by UNC until construction of the dam was nearly completed and, accordingly, the managers at VEPCO assumed that little of archaeological significance existed within their project area. Through a series of last-minute negotiations from March 17 to April 22, 1955, between Mr. Joffre Coe, director of the Research Laboratory of Anthropology at UNC, and Mr. Walter I. Dolbeare, vice president of area development for VEPCO, VEPCO agreed to allow an archaeological survey of the proposed reservoir and also agreed to contribute $1,200 toward a proposed $3,900 budget for the work. The remaining expenses were covered by the university, and no money was allotted either for analysis or for writing a project report. Because the reservoir had already been cleared and construction of the dam would be finished within a few months, VEPCO stipulated further that all fieldwork must be completed by June 1, 1955. This deadline was later extended by a month, which permitted substantial excavation of the Gaston site.[2]

Archaeological survey began on April 19, when Joffre Coe and graduate students Stanley South and Lewis Binford traveled from Chapel Hill to Roanoke Rapids and began searching for sites. Five sites were recorded that day and archaeological features were found almost immediately. At Site 5 (later named the Thelma site), they found a burial disturbed by bulldozing, and additional burials were discovered there the following day. On April 23, South and Binford took time off from their academic schedules and returned to the reservoir along with South's wife, Jewell. They continued their survey three to four days a week until June 1, camping out in the reservoir and working each day from sunrise until sunset. Because access to potential site areas was poor, they spent a good portion of each day hiking or boating to sites. During those 21 days, they recorded 74 prehistoric sites on alluvial terraces along the north and south banks of the river and on Vincent's, Tiller's, and Clement's islands. They also conducted test excavations at six sites, and larger blocks were excavated at two of these sites—Gaston ($Hx^{v}7$) and Thelma ($Hx^{v}8$).[3]

On June 1, the day the project had been scheduled to conclude, South and his small field crew began a nonstop, seven-day-a-week excavation of the Gaston site, facilitated by the use of bulldozers and road graders to remove overburden from the site. Work on this Woodland village site with stratified Archaic deposits continued for a month as the waters on Roanoke River began rising behind the now-completed dam. On June 29, 1955, the rising water finally flooded the site and brought the excavation to a close.[4]

Once out of the field, Stanley South took on the task of cleaning, cataloging, and analyzing the recovered artifacts for his Master's thesis, titled *A Study of the Prehistory of the Roanoke Rapids Basin* and completed in 1959. This book is a revised version of that thesis. While the original plan was to publish South's entire study with an additional grant from VEPCO, this never occurred, and only the results of the Gaston site excavations were published instead in Joffre Coe's *The Formative Cultures of the Carolina Piedmont*, a revision of his doctoral dissertation. For that reason, this important and more comprehensive treatment of the archaeological investigations in Roanoke Rapids Reservoir has not been readily accessible to scholars until now.

Despite a meager budget, small field crew, and abbreviated field season, the results of the archaeological research performed by South and his colleagues in the Roanoke Rapids Reservoir were substantial. First, they recorded and sampled numerous sites through a relatively systematic and comprehensive survey of an artificially denuded riverine landscape. While their survey was limited mostly to alluvial terraces and had as its primary purpose the identification of sites for potential excavation, they also recovered basic data for assessing prehistoric adaptation and settlement history of the valley. These data are particularly important now, given that almost the entire length of Roanoke River between Roanoke Rapids and the confluence of Dan and Staunton rivers above Clarksville, Virginia, a distance of nearly 100 river miles, now lies beneath three reservoirs.

South and his colleagues also provided careful documentation of a prehistoric cultural sequence previously unknown for this portion of the Roanoke valley. In doing so, they provided sufficient data for defining and describing three Woodland phases (Vincent, Clement, and Gaston) as well as a new Archaic phase (Halifax) positioned stratigraphically between components of the Middle Archaic Guilford and Late Archaic Savannah River phases at the Gaston site.[5] Through a combination of stratigraphy, pottery seriation, and radiocarbon dating, South constructed an occupational sequence that has held up for almost 50 years.

The only revision needed for this sequence has been to adjust the absolute time scale for the three Woodland phases. The age of the earlier two phases—Vincent and Clement—was based on the radiocarbon dating of charcoal samples from multiple, possibly disturbed contexts, while the age of the Gaston phase was based on a single radiocarbon date and comparisons to two nearby archaeological phases—Hillsboro and Dan River—purported to be associated with historic-era Siouan tribes. A recent reevaluation of Vincent, Clement, and Gaston pottery and their relationship to Woodland ceramic complexes elsewhere in piedmont North Carolina indicates that: (1) Vincent likely is contemporary with the first half of the Yadkin phase (about AD 1–500); (2) Clement likely is contemporary with the last half of the Yadkin phase and first half of the Uwharrie phase (about AD 500–1000); and (3) Gaston likely dates to the era just prior to European contact (AD 1400–1600).[6] (For a current perspective on the archaeology of the

Roanoke River basin and adjacent areas, the reader is encouraged to consult *Time Before History: The Archaeology of North Carolina*, by H. Trawick Ward and R. P. Stephen Davis, Jr., University of North Carolina Press, 1999.)

Stylistic characteristics of Gaston pottery—particularly the presence of folded rims on simple-stamped vessels—suggest a close relationship to the Hillsboro series as represented at the Wall site in Orange County, North Carolina. Radiocarbon dates from Wall now indicate that it is not the Occaneechi village visited in 1701 by John Lawson, as was thought to be the case in 1959, but instead was occupied sometime between about AD 1450 and 1600.[7] Other pottery traits attributed in 1959 to contact-period Siouan groups to the west, such as notching of the exterior vessel lip edge and decorations created by incisions and punctuations, are now known to be associated with the late pre-contact Dan River phase rather than the later Saratown phase which represents the historic Sara Indian occupation of the upper Dan River drainage.[8] The absence of European-made artifacts in pits containing Gaston pottery also argues for an occupation date earlier than the mid-seventeenth century.

Who lived at the Gaston site during this period is an important question that cannot be answered confidently at this time. A case can certainly be made that the potters at the Gaston and Wall sites shared a common ceramic tradition, and this would suggest that they may have been Piedmont Siouans. Conversely, simple stamping is also a characteristic common to Cashie series pottery, which David Phelps attributes to the Tuscarora and related Iroquoian groups of the inner Coastal Plain.[9] Given the location of the Gaston site at the edge of Tuscarora and Siouan territories, as known from ethnohistoric documents, either affinity appears plausible.

The excavations at Thelma and Gaston also documented profound changes in mortuary practices which have important implications for changing social dynamics during the Woodland period.[10] The small ossuary at Thelma reflects a method of burial more commonly found on sites in the Coastal Plain. David Phelps has reported similar burials on later Cashie phase sites, and he interprets these as representing single family units.[11] With the exception of a single bundle burial, all interments at the Gaston site were primary inhumations in simple pits, and all appear to date to the Clement or Gaston phases. This mortuary practice, along with the occurrence of several dog burials, is consistent with patterns seen elsewhere in piedmont North Carolina during the Uwharrie, Haw River, and Dan River phases of the Late Woodland period (AD 1000–1600). The apparent shift from ossuary burial to primary interments is intriguing in light of the strong cultural continuity reflected by other traits—most notably ceramics—of the Vincent–Clement tradition.

The final significant result of the Roanoke Rapids Reservoir study was South's successful testing of Joffre Coe's "buried site" hypothesis, first demonstrated during the late 1940s with the discovery of deeply buried Archaic strata at the Doerschuk and Lowder's Ferry sites on Yadkin River. Simply put, Coe's hypothesis predicts that stratified sites are likely to occur within the alluvial valleys of piedmont rivers behind natural obstructions where "the river forms large eddies when it is in flood and deposits sand and silt at a faster rate than elsewhere along the narrow flood plain."[12] Deep excavations at the Gaston site, situated along an alluvial terrace meeting the requirements of this hypothesis, yielded a stratified sequence of Woodland and Archaic occupations to about six feet below surface. These excavations confirmed the chronological relationship

between Archaic cultural phases represented by Guilford Lanceolate and Savannah River Stemmed projectile points, and identified an intermediate cultural complex characterized by a previously unrecognized point type named Halifax Side Notched.

Those who read this book will be struck by two things. First, they will be impressed by the shear magnitude of this work. It far exceeds what is expected—then and now—as a Master's thesis. In a sense Stanley South was a man ahead of his time, in that the University of North Carolina did not begin granting Ph.D.s in anthropology until 1965. If they had, his work surely would have qualified as an acceptable doctoral dissertation. The reader also will find that all of Stanley South's signature qualities as a preeminent research archaeologist—scientific inquiry firmly grounded in cultural evolutionary theory, the search for patterning in the archaeological record, and an engaging writing style—are all recognizable in his first research effort. Indeed, it is hard to imagine such a mature product—from the fieldwork through analysis to the final report—coming from someone who at the time was relatively new to archaeology.

PREFACE

This volume presents the archaeological information I revealed in my excavation of the Gaston site (Hx^v7) in Halifax County, North Carolina—a site made famous by Joffre L. Coe (1964:84–126) through his summary of my report on that project (South 1959). Since that time, I have had requests for Xerox copies of my original 450-page report, because the data I presented there are as valid today as at the time that thesis was written. Steve Davis, in his Foreword, has updated some of the interpretations I arrived at a half-century ago. Recently, at the urging of Steve, Research Archaeologist and Associate Director at the Research Laboratories of Archaeology at the University of North Carolina, and his willingness to scan the many plates, figures, and maps, I have decided to reformat and present here "the rest of the story" for the benefit of those archaeologists hungry for the morsels of information it holds.

In this unexpurgated volume I tell the story of the 74 sites found in the Roanoke River basin near the town of Roanoke Rapids before a dam was constructed to flood them. Through Joffre Coe's contact with the Virginia Electric and Power Company, he received a $1,200 grant to carry out the survey. This was in the days before laws were enacted requiring them to do so. The officials we met with were interested in sharing the report with the public and promised an equal amount for that purpose when requested by Joffre. That request for publication funds was never made. After almost a half-century delay I am sharing this report with the public through this volume.

I hired my wife, Jewell, and Lewis R. Binford, a fellow graduate student, for 75 cents an hour to work with me on the project. We spent two weeks in the basin conducting a surface site survey. Then, with a tent in the trunk of my 1939 Ford, and a canoe on top, and our infant son, David, turned over to Jewell's mother, the in-field project began in June 1955 and continued for a month.

I selected the Gaston site for extensive excavation of five-foot control squares. Later I arranged for road-graders and a bulldozer to remove the two-foot Native American pottery-bearing layer to expose the yellow sand subsoil and the pit and posthole features intruding into it.

A total of 200 garbage pits, burials, and cooking pits were revealed and excavated. The analysis of the cultural materials revealed a high degree of correlation with those found in the surface survey. Radiocarbon dates associated with Native American pottery ranged from 215 to 1,040 years ago. As a result of my analysis I established the Gaston, Clement, and Vincent pottery series.

An early morning epiphany occurred as I lay trying to solve the puzzle of why we were finding Savannah River projectile points in the yellow sand beyond the wall of some of the deepest pits—the site was stratified! We leaped up and out of the tent using Coleman lanterns at 4 a.m. to dig a trench down the side of the site to reveal the strata (see cover). As a result of the verification of this theory a series of

pre-pottery culture periods was outlined, with radiocarbon dates revealing a Native American occupation on the site from 6,000 years earlier.

Test excavations at the Thelma site ($Hx^{v}8$) revealed pottery similar to that found in the survey and at the stratified Gaston site. Also found at the Thelma site was an ossuary burial containing the remains of eight individuals.

This book presents the details and conclusions discovered in this, my first adventure into the scientific world of American archaeology.

ACKNOWLEDGEMENTS

The publication of this book was suggested by R. P. Stephen Davis Jr., Research Archaeologist and Associate Director at the University of North Carolina at Chapel Hill, who encouraged me to publish my 1959 thesis. I am also grateful to Steve for volunteering to scan the plates, figures, and maps to allow their reproduction here, for writing the Foreword, and for seeing this volume to print.

Thanks, too, to my colleague, Chester DePratter, Associate Director for Research at the South Carolina Institute of Archaeology and Anthropology (SCIAA), for his encouragement and support in its production. Another colleague, Tommy Charles, has also been of great help in scanning and printing many of the figures and plates herein, for which I am grateful. I also appreciate the help of Lisa Hudgins and Julie Elam for scanning and editing the pages from an original copy of the thesis. I am grateful, also, for the computer assistance I have received from Christopher Gilliam.

Thanks to the Robert L. Stephenson Archaeological Research Fund at SCIAA, and to Wayne Neighbors, for a grant to the University of South Carolina Educational Foundation Historical Archaeology Research Fund, that allowed me to employ Lisa and Julie to assist with the production of this volume. Thanks to Bradford L. Rauschenberg, executor for the estate of Frank Horton for partial funding for this book, although Brad's primary grant was for the publication of the revised edition of my 1993 report on the excavated pottery of John Bartlam, America's first creamware potter.

Thanks also to Bruce Rippeteau, Director of SCIAA, and Jonathan Leader, Interim Director, for their support in the production of this volume. Many others helped during the archaeological research that produced the 1959 version of this book, and those acknowledgements are presented in Appendix C.

Stan South
February 2, 2004

CHAPTER 1

INTRODUCTION

The archaeological survey of the Roanoke Rapids Basin was undertaken primarily as a salvage program designed to secure as much information as possible of the prehistory of the area before it was lost by flooding. The Virginia Electric and Power Company dam was being built at Roanoke Rapids, and would form a lake nine miles long and from one to two miles wide.

The Virginia Electric and Power Company and the Research Laboratory of Anthropology at the University of North Carolina financed the project jointly. Supervision of the project was by the Research Laboratory of Anthropology, Joffre L. Coe, Director.

Because this was a salvage project, the boundary of the survey was not a matter of choice, but was limited by the area to be flooded. However, no archaeological work had been done in this area, and this was looked upon as an excellent opportunity to round out the incomplete archaeological picture.

Joffre Coe had conducted excavations at Clarksville, Virginia, further up the Roanoke in the Piedmont, and had outlined the net-impressed, incised, and notched-rim ceramics found there. Through his excavations at Clarksville and on the Dan River, he had presented a picture of the development of the Siouan cultural tradition in the Piedmont.[1] Clifford Evans had conducted a ceramic study of Virginia, and had described the cord and fabric impressed, simple stamped and shell tempered ceramics of the Southeastern and coastal Virginia areas.[2]

With the piedmont Siouan tradition to the west, and the coastal Algonquian tradition to the east during historic times, the Roanoke Rapids survey was seen as an excellent opportunity to see how these two traditions were manifested at this point midway between the two culture areas. The answering of this question was one of the purposes of the present survey. This question of Algonquian-Siouan relationships is based on the historic presence of these groups in their respective areas. Did these known archaeological complexes represent a continuous developmental occupation within the basin, or would it be found that different cultural groups occupied the area at different times? This was another question upon which it was hoped the survey would shed some light.

Also in mind was the question of very early pre-ceramic occupations in the area. Joffre Coe had found pre-ceramic stratified cultural material dating back eight thousand years in piedmont North Carolina.[3] Would the present survey indicate that there had been such early occupations within this area also? Perhaps a stratified site could be found in the Roanoke Rapids basin. Coe firmly believed that stratified archaeological sites of considerable depth exist in the Southeast as well as in the West if the archaeologist would pick likely sites and continue digging below the later midden accumulation. He had proved this point at three sites in the Piedmont, and gave advice as to what to look for in

locating such sites. Would Coe's success with stratified sites be repeated in this survey? This was a possibility when the survey began.

The archaeologist is an anthropologist who prefers to pursue the study of culture by examining the non-perishable remains of prehistoric cultures, and reconstructing from these clues a picture of the way of life of the people who left them. Therefore, one of the primary objectives of the present study was to recover as much as possible of the cultural remains of the people who once lived in the basin, and then to reconstruct from this a picture of the cultures represented. In order to do this a surface survey of the sites within the basin was conducted. Areas of concentration of cultural materials were called sites. Seventy-three of such sites were discovered in the survey conducted on weekends during April 1955.

In order to be able to correlate this material with a control, six sites were sampled. Four are reported in the surface survey section of this report. These four had only four five-foot squares dug on each. Two other sites are reported in individual sections of this survey. One of these is the Thelma site ($Hx^{v}8$) at which eight five-foot squares were dug during a series of weekends in May. On June 1, 1955, excavation of the Gaston site ($Hx^{v}7$) was begun, and continued without interruption for 30 days, at which time the water backing up behind the new dam forced the abandonment of the basin.

This volume is a descriptive report of the methodology and findings of the survey and the excavation along with a description of the cultures represented in the basin through time, with their relationship to adjoining areas. It presents answers, to some degree, to the questions in mind when the survey was begun. These questions were:

1. What culture complexes had once existed in the area?
2. What was their relative and absolute chronology?
3. How do they fit into the overall picture of aboriginal cultural development in the area?

Theoretical Assumptions

Before the archaeologist launches into a presentation of methodology and data, there should be a statement of the theoretical assumptions upon which the study was undertaken and interpreted. Too often nothing is said in regard to these assumptions, and the reader is left to wonder if the writer fully realized the implications of the procedures involved. For this reason the various sections on methodology in this study deal in some respect with the assumptions underlying the use of that particular technique or method. However, there are some assumptions that are basic to the archaeological process itself, that are seldom stated. A short statement of these assumptions is presented here.

Leslie White says that anthropology, and therefore archaeology, interprets its data in terms of three concepts: the historical, the evolutional, and the formal-functional. He says that the historical process is concerned with a chronological sequence of events unique in time and space. The formal-functional process is characterized by chronological sequences and by a concern with formal-functional processes. The evolutionist process is concerned with progressive change of forms through time.[4]

The archaeologist of prehistoric sites does not often utilize the historical approach because the data are not suited to a study of a particular series of unique events in time and space. Rather, they must deal in groups of similar things known as "types." [5] These

types are usually based on form. The archaeologist may take one type of bone splinter and, from comparison with similar splinters used for boring holes by some living group today, conclude that such splinters were used as awls. This is using the formal-functional process to interpret the data. There may also be established a series of bone awl forms in a chronological sequence according to form, and this still would be using the formal-functional process. If, however, the explanation of these data involves the progression of these forms through time, that is using the process that is evolution.

Archaeologists base their interpretations on the relationship of various types based on form. They discuss these forms in terms of their chronological and areal significance. They note the changes in forms that take place through time, and attribute these to changing ideas within the culture as a result of independent innovation within, or ideas from outside, the culture. They conduct ceramic seriation studies designed to show the change of forms through time. In doing these things, the archaeologist is using evolutionary theory—the progression of forms through time.

We are born into a cultural milieu which is not of our own creation; therefore, we are molded by our culture as we mature. The ideas prevalent in our culture in regard to the proper method of making pottery will be the influential factor in determining how we make a pot. The archaeologist is interested in how the people in various cultures made pottery so that there can be an interpretation of this information in terms of ideas prevalent at various periods in culture history. The interest is not in the unique event that a Catawba Indian named Mary Blue made a pot three inches high in 1902. This would be of interest to the historian, or perhaps the psychologist, who is interested in unique events and individuals. The anthropologist would be interested in how the Catawba Indians made pottery in the early part of the twentieth century. This is the basis of why Leslie White says that culture can be studied as a thing apart from the individual, as if the individual did not exist.[6] Underlying the approach of the archaeologist to the study of culture, therefore, is the assumption stated by James A. Ford:

> The best thinkers in the field have long been aware that culture derives from preceding culture and is not exuded by the human animal that carries it.[7]

Because of this, and the influence of diffusion, there is a changing stream of ideas that are reflected in changing artifact forms through time, which the archaeologist uses to interpret a picture of culture change.

The archaeologist may use the historical approach, but the basic assumptions are closer related to the formal-functional and evolutionary approaches to the study of cultural data.

Some archaeologists have criticized evolutionary theory while at the same time utilizing method and interpretation that are basically evolutionary in nature. A paper by the present writer deals with evolutionary theory in archaeology, and no further discussion of the point will be made here.[8] In this study, the fact that evolutionary theory underlies many of the assumptions is recognized. It is thought that if those archaeologists who are anti-evolutionist in their theoretical views will examine the assumptions upon which their archaeological practices are based, they will find they owe no little debt to evolutionary theory.

Documentary Notes on the Basin

A detailed history of the settlement of Halifax and Northampton counties is outside the scope of this study; however, a few comments should be made in regard to some of the history of the basin.

During the nineteenth century the Roanoke River was an important means of transportation for those farmers along the river. The rapids constituted a major barrier for the barges of cotton and other goods that were being taken down the river. In order to bypass the rapids, a series of canals were built along the southern bank of the Roanoke at the rapids. Remains of these structures were seen during the survey of the basin. At the Gaston site a lock was standing, and a view of this lock and the rapids from the bank at the Gaston site is seen in Plate 41b.

Throughout the nineteenth century the basin was the scene of much more activity than has been the case in recent years. Below the Thelma site are the remains of a railway trestle across the river. This trestle is said to have been for the Gaston railroad. On the opposite shore of the river, on the downstream side of the trestle, a concentration of bricks and historic material was found. Local residents say this was the site of the Gaston Hotel that once did a thriving business in the basin, and near here is said to be the site of the old town of Gaston.

During the surface survey some European trade pipe fragments were found, indicating possible trade with Indians in the basin during historic times. Measurement of the holes in the stems of these pipe fragments indicates that they were made during the period between AD 1710 and 1750.[9] Also found were pipe fragments of the type used during the nineteenth century. These, and the trade pipe fragments, are shown in Plate 36a and 36b.

The earliest reference to the rapids on the Roanoke River is made in a report of a trip made by Edward Bland, Abraham Wood, Elias Pennant, and Sackford Brewster in August, 1650. They say that the Tuscarora king had invited them to trade, so they were headed for the Tuscarora nation. Paschal thinks they left Fort Henry and traveled along the Occaneechee path and arrived at the Roanoke at Clarksville, Virginia.[10] It would seem to me, however, that if they were headed for the Tuscarora villages they would have traveled further toward the east than Clarksville. This is further borne out by a comparison of the description of the area around the Roanoke made by these early observers.

> [W]e about eight set forward to goe view the place where they kill sturgeon, which was some six miles from the place where we quartered at night...this river was by us named Blandina river [Roanoke] from where we quartered to the place where they kill sturgeon is six miles up the river running northerly, and all exceeding rich land....at this place where they kill sturgeon also are the falls, and at the foot of these falls also lies two islands in a great bay, the uppermost whereof Mr. Bland named Charles Island and the lowermost captaine Wood named Berkely Island: on the further side of these islands the bay runs navigable by the two islands sides, Charles Island is three miles broad, and foure miles long, and Berkely Island almost as big, both in a manner impregnable: by nature being fortified with high clefts of rocky stone, and hardly passeable….[11]

This description fits the topography of the land and river situation at and below the rapids where the present survey was conducted. The islands at Clarksville do not fit the description of these two described in this early account, being composed of sand,[12] while

the two islands below Roanoke Rapids are said to be rocky on the northern edge, fitting the description exactly.[13]

If the Roanoke Rapids was the place "where they kill sturgeon" then the area was evidently occupied by the Tuscarora, to some extent at least, in 1650, and an archaeological survey of the area would possibly recover artifacts of Tuscarora manufacture. However, the process of identifying them, as well as other occupants, would be more difficult.

CHAPTER 2

THE AREAL SURVEY

Description of the Basin

The Roanoke Rapids dam was built on the Roanoke River at Roanoke Rapids, North Carolina, in the northeastern section of North Carolina near the Virginia line (Maps 1 and 2). The area covered in this survey was a distance of nine miles upstream from the dam, and a width of from one to two miles. This was the area to be flooded, so the site survey and excavation was conducted entirely within this area.

The Roanoke River here flows from west to east, with Northampton County to the north and Halifax County to the south. Just below the dam the river turns toward the southeast and flows into Albemarle Sound at Plymouth, North Carolina.

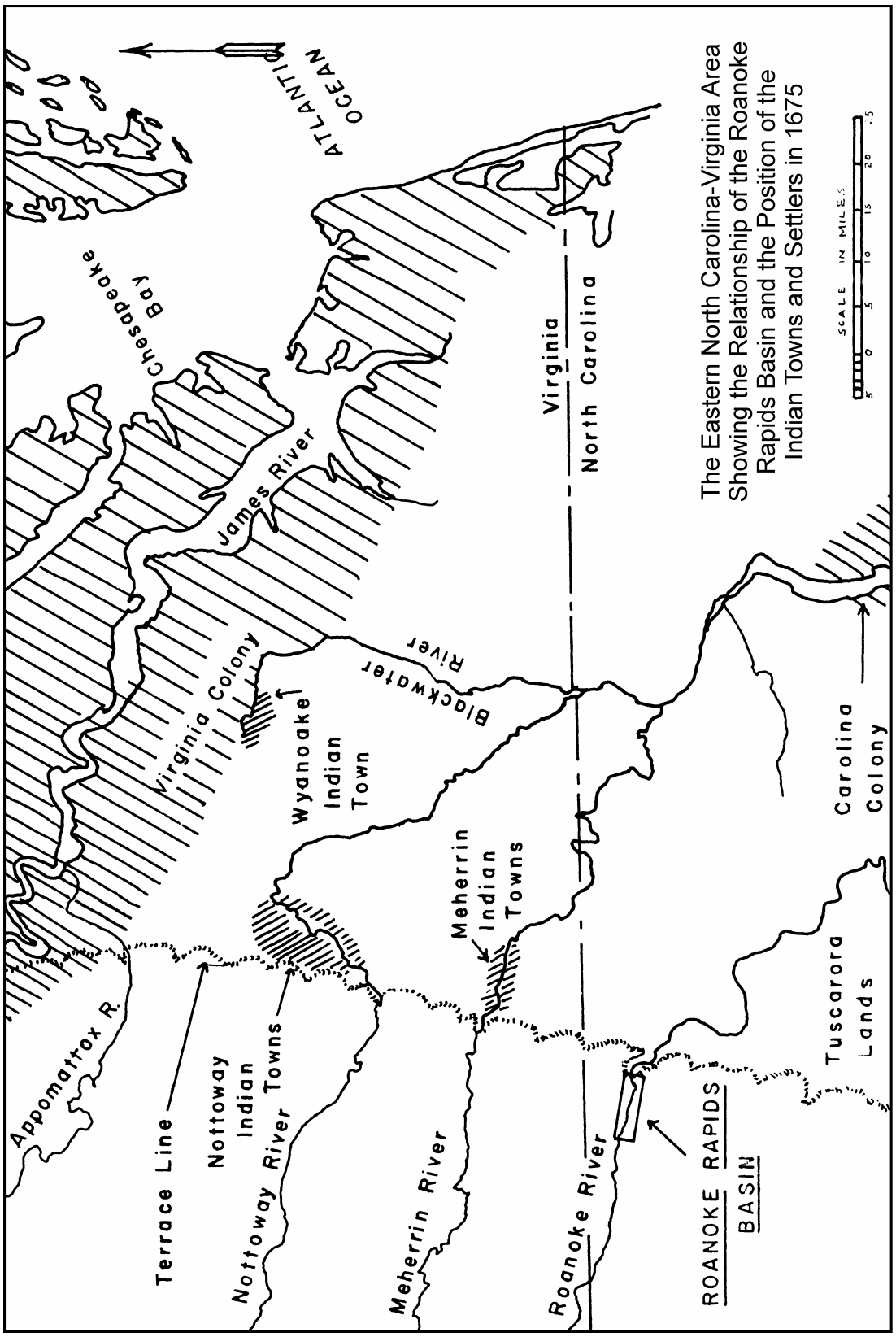
Near the dam the sides of the basin are steep and come directly down to the river's edge with no bottomland capable of containing archaeological sites. The river is rapid at this end of the basin for a distance of two miles from the dam, and many boulders and small islands are seen at this point. One and one-half miles from the dam, a narrow tapering end of a large island extends into the rapids. On this tapering end of the island were found many signs of Indian occupation. This is Vincent's Island, which is four miles long, and at the widest part is almost a mile wide. To the south of Vincent's Island the branch of the Roanoke River is called Little River. Along this branch a large number of Indian occupation sites were located on this island.

To the northwest of Vincent's Island is Tiller's Island, formed by a stream that leaves the Roanoke at a group of rapids at the western tip of the island and rejoins it two miles further downstream. This stream appeared to be a comparatively recent addition to the geographic picture of the basin. The natural river levee on the south side of this island was low, and only four sites were found on it, these being at the southwestern edge where the elevation is highest above the river.

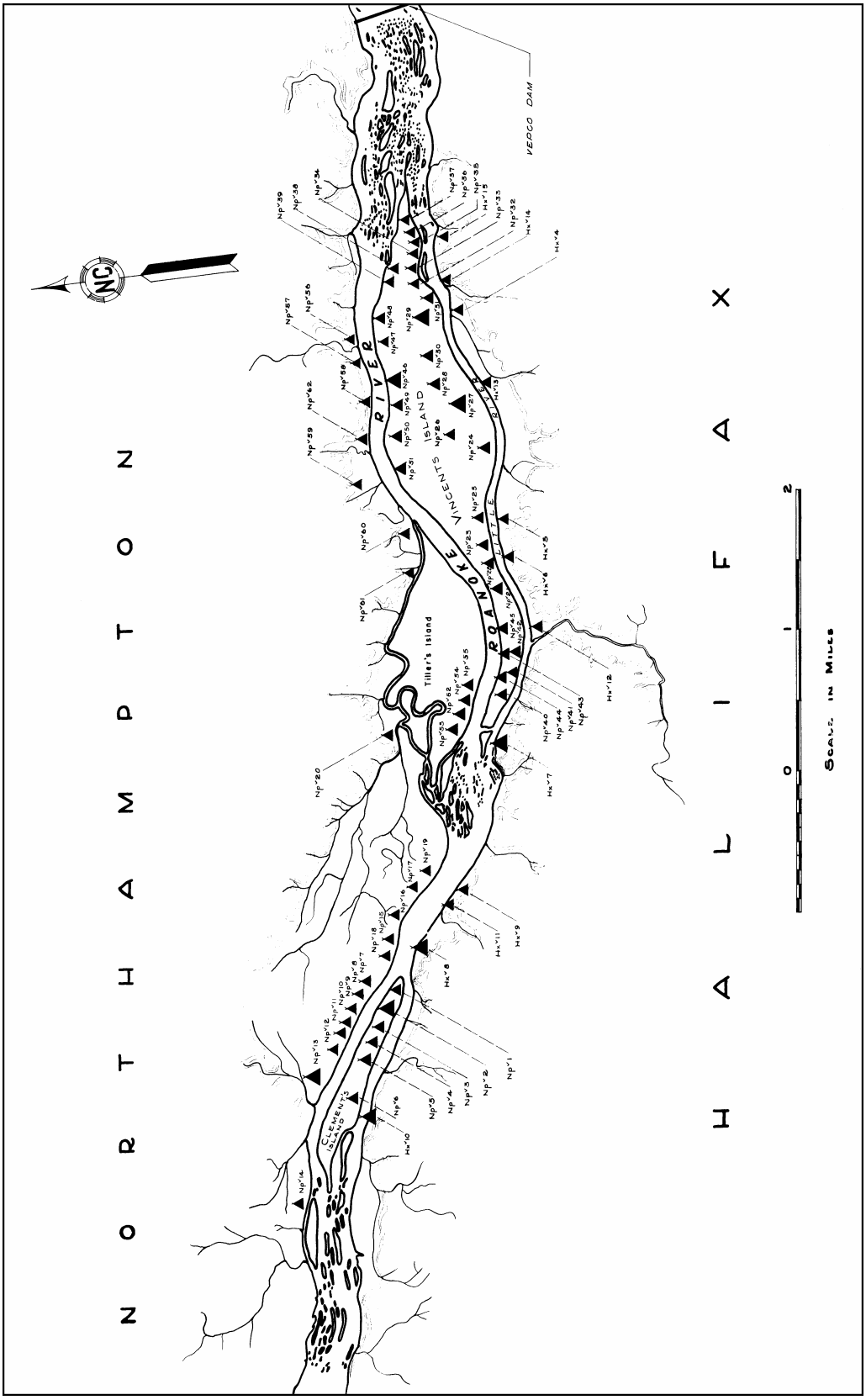
A mile and one-half further upstream from Tiller's Island is the eastern tip of Clement's Island. This island is one and one-half miles long, and one-fourth of a mile wide. As was true of Vincent's Island, this island has a high terrace extending along the south side at a distance of 200 feet from the present river. The height of this terrace is from 10–20 feet above the level of the river. Along these terraces were located the large percentage of the sites on these two islands. The basin survey did not extend beyond a quarter mile above the western tip of Clement's Island.

The southern side of the basin, as a rule, dropped from the high rim of the basin down to a bottomland of not more than 100 yards wide, at the most, while on the northern shore the bottomland was sometimes a mile wide.

The basin was characterized by having a series of high rock ridges extending from the rim of the basin out to the water's edge. These ridges of rock, or points of land that extend like fingers out into the basin, were left by the river in its meandering and cutting



Map 1. The Eastern North Carolina-Virginia area showing the relationship of the Roanoke Rapids basin and the position of the Indian towns and settlers in 1675.



Map 2. The Roanoke Rapids basin showing the location of the Indian sites.

of the basin. Rapids are a result of the remnants of the points of land being cut into by the river. These rock points are important in the archaeological study of the basin. During flood they act as barriers or jetties to the rushing water, and as the flooding waters swirl around these barriers the sediment they are carrying is deposited on the downstream side, burying any evidence of Indian occupation there beneath a layer of sand.

As a result of this action of the ridges on the flooding river, the bottomland on the downstream side of these ridges is almost always higher than that on the upstream side. This factor helped to influence the selection of these sites for occupation by the Indians. Another factor was the rapids. If water was used as the means of travel, these rapids would have to be bypassed by land, and these high areas would offer convenient campsites. These combined factors must have influenced travel along the river for thousands of years, because it is at these points below the ridges that have the widest variety of Indian cultural material. Sites Hx^{v}7, Hx^{v}8, Hx^{v}10, and Np^{v}20 are such sites, containing cultural material covering at least a period of six thousand years.

Another feature characteristic of the basin was the levee and terrace situation. Along the banks of the present river is a natural levee formed by the flooding and depositing by the river of soil at the edge of the bank. This situation was characteristic of the river throughout the basin. No cultural material was found along this levee. Further from the river than this levee was an older levee or terrace that is much higher than the banks of the present river. This terrace varies from 10–20 feet high, and it was along this terrace that the most cultural material was found. On the map of the basin (Map 2), the series of sites on Clement's Island were on this levee, as well as those on Vincent's Island along the southern and northern edge of the island. The center of Vincent's Island and the northern edge of Clement's and Tiller's Islands were low and swampy, and contained no cultural material.

When the survey of the basin was begun, the trees and undergrowth had been removed and burned. The bulldozers used to clear the basin had disturbed the ground in many places, and resulted in disturbance of Indian sites. The major portion of the basin had been in trees and bushes. The bottomland on the northern edge of the basin had been cultivated, as had a small section of the high ridge on the southern edge of Vincent's Island. Several of the high areas below rock ridges had been cultivated, as was the case at the Gaston site (Hx^{v}7). The use of the basin for agricultural purposes was kept to a minimum, and some areas previously cultivated had been used recently for grazing cattle. The bottomland to the north of the river, opposite the north side of Clement's Island, had been cultivated continuously since the Civil War, according to local informants. They say the high terrace along which the series of sites was located at this section of the basin was made higher by the use of slaves to prevent flooding of the bottomland. The levee had been cut through at this point recently, and the residents say they found a quantity of bones and artifacts around the levee area.

In prehistoric times the area must have abounded in a variety of wildlife, as evidenced by the variety of animals represented in excavated pits, as well as the different types still present in the area. Since the basin had been cleared of all brush, the animals had probably moved to the higher ground for cover. The area must have been a feeding ground for deer before the cover was removed, as evidenced by frequent tracks and an occasional jumping of a deer on the islands during the survey. Although all cover was gone they seemed to continue to swim or wade to the islands. The presence of raccoons

was noticed from raids on the campsite. Wild turkeys, and occasionally a group of wild ducks, cranes, and a few blue heron, were seen.

Muskrats, rabbits, quail, and opossum or their spoor were observed. No live snakes were seen during the entire stay in the basin, although two dead cottonmouth moccasins were found.

The fishermen along the river catch a variety of fish, and below the dam the rockfish are caught and sold commercially. In fact, I was told that when the dam was built special oxygenation of the water leaving the dam was necessary to insure the successful love life of the rockfish below the dam.

Locating the Sites in the Surface Survey

There were three persons making the survey. The shoreline was walked on both sides of the basin and the islands were well covered. One person walked along the small natural levee near the present river, while another walked on the second, or older and higher levee further inland. The third person walked on the bottomland behind this levee.

When a potsherd was found, each was signaled and began to approach the area where the sherd was found. In this manner the outer edge of the concentration of sherds and artifacts was determined. Collection was made for several minutes, whereupon one person drew a sketch map of the area and located it on a map of the basin, and then took a photograph of the site (see Plate 2a) while the others continued to look for specimens.

These sherd concentrations were considered a site although at times such concentrations were found within a few hundred feet of each other. Material collected was placed in a paper bag and marked with the site number. The system of numbering the sites is the one used by the Research Laboratory of Anthropology at the University of North Carolina. Two letters are used to designate the county in which the site is located. A small "v" is used to refer to the village or site, and its consecutive number follows. Thus, Hx^{v}4 designates Halifax County and village or site 4. The two counties in this survey are Halifax (Hx) on the south side of the river and Northampton (Np) on the north, including all islands. At the beginning of the survey three sites were already known from Halifax County, so the basin sites in Halifax County begin with Hx^{v}4. No sites were recorded for Northampton County previous to this survey, so the basin sites in that county begin with Np^{v}1.

It was soon discovered that no sites were to be found on the small levee near the river or in the low bottomland behind the second levee. The persons walking in these positions were then moved in nearer the second levee, with one taking a position along the base of the levee on the river side and the other near it in the bottomland. The third continued on top of this terrace. At frequent intervals the persons in the outside positions would wander from this course in order to check any likely-looking areas further inland or nearer the river.

Almost all the sites were located on higher terraces between the bottomland and the river. Much of the bottomland was in swamp, and sherds were rarely found away from the higher areas.

Description of the Sites in Halifax County

Hx^{v}4. This site is on the upstream side of a ridge of rock that extends from the rim of the basin to the edge of Little River. There is a gradual decline in elevation from the natural river levee to the foot of the basin rim and a swamp. River-deposited sand extends to this swampy area and is replaced by clay eroded from the steep sides of the basin. The site extends for about 300 feet along the foot of the basin rim in the swampy area. Before being cleared, the area had been a thick growth of trees and underbrush. Bulldozing activity in the area of the site had exposed the cultural material.

Hx^{v}5. A mile and one-half further upstream from Hx^{v}4, near the downstream tip of a ridge of rock extending to the river's edge, is site Hx^{v}5. The bottomland on the downstream side of this ridge of rock was once a cultivated field. In the edge of this field, near the river and along the access road at the tip of the ridge where bulldozers cut into the natural levee of the river, is where the artifacts were found. The soil is composed of river deposited sand. The site covers an area of about 100 feet along the access road and the base of the ridge.

Hx^{v}6. One quarter of a mile further upstream from site Hx^{v}5 the bottomland narrows to a width of about 100 feet. The access road cuts into the natural levee for several hundred feet at this point. As the road approaches a ridge of rock, it turns away from the river and crosses this ridge. The site is located along this road as it cut into the levee on the downstream side of the ridge. The soil is sand, and at this point the river is only about 10 feet above the level of the water. Before the access road was cut, the area was in trees and underbrush.

Hx^{v}7. The Gaston Site. This site was chosen for extensive excavation, and the report of this work is presented in Chapters 5 and 6.

Hx^{v}8. The Thelma Site. This site was also test-excavated and is reported in detail in Chapter 7.

Hx^{v}9. This site is located about one-half mile downstream from site Hx^{v}8 on the natural levee. The soil here is alluvial clay and sand. The site is only about 50 feet in extent, being confined to an area of the levee torn up by bulldozers making a parking lot for a boat landing.

Hx^{v}10. One mile upstream from Hx^{v}8, between Indian Creek on the downstream side and a ridge of land on the upstream side, is site Hx^{v}10. It is on a river-deposited sand terrace, 15 feet above the present level of the water. This terrace is located about 100 feet from the present river and rises abruptly from a swampy area immediately behind the present river levee. A large quantity of sherds was found on this high terrace. This finding, the high elevation from the river, and the location near a stream below the ridge of land were factors influencing a decision to dig some test pits on this site. The area had been in forest before it was cleared.

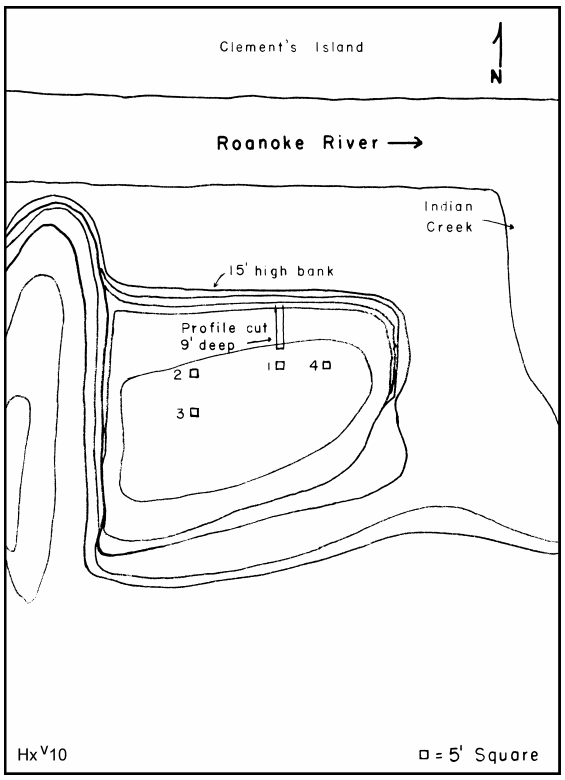
Excavations at Hx^{v}10. Because of the profusion of sherds on the high bank, I thought that some midden accumulation might be present at this site. Four five-foot squares were dug, but only square #2 had any depth below the first eight inches (see Map 3).

A profile trench was dug on the edge of the bank to a depth of nine feet in an effort to determine if any stratigraphy was present. No visual layer of occupation could be seen,

and in sifting all the soil from this profile, no chips were found. It is thought that if a 10-foot wide square were excavated to a depth of 15 feet some artifacts could perhaps be found stratigraphically.

In square #1, a chipped and pecked grooved ax was found (Plate 26a). Since square #2 was the only one in which any depth was found, and which contained sherds in any quantity, this square was the only one for which percentage relationships could be computed.

In this square only the Clement and Vincent ceramic types (described later in this report) were found. There was an inverse ratio between these types by levels. Of the Vincent series, 42.9% were found in the 0–12-inch level and 57% were found in the 12–22-inch level. Of the Clement series, 63.8% were found in the 0–12-inch level and 36.1% were in the 12–22-inch level. This superposition of the Clement above the Vincent types was also found in other squares at other sites, to be demonstrated later.



Map 3. Sketch map of site Hx^{v}10.

Hx^{v}11. A few hundred yards above site Hx^{v}9 is site Hx^{v}11, located on the second river terrace below a ridge of rock. There is a small stream entering the river on the upstream side of this ridge. The soil is sand deposited by the river, and before being cleared the area was in trees and underbrush.

Hx^{v}12. One mile downstream from site Hx^{v}7, on the downstream side of Deep Creek as it enters Little River, is site Hx^{v}12. The site is located in the corner of land formed by the junction of Deep Creek with Little River, which is about 10 feet directly above the level of the river. The soil here is yellow sand and has been considerably disturbed by bulldozers.

Hx^{v}13. Site Hx^{v}13 is located on the levee directly beside the present Little River position. The site is one-half mile upstream from site Hx^{v}4 at the point where an old bridge to Vincent's Island was destroyed. The area around the destroyed bridge had been considerably disturbed by bulldozer activity. The potsherds were found scattered over an area of about 300 feet along the disturbed levee. The soil is coarse sand deposited by the river. The vegetation was previously in forest and underbrush before being cleared.

Hx^{v}14. On the downstream side of the ridge of land below site Hx^{v}4 is site Hx^{v}14. There is a small area around the access road, and on each side of a small stream that enters the river at this point there were potsherds, steatite sherds, and other artifacts. The distance between two ridges on each side of the site is not over 200 feet, so there was not room for an extensive village at this site. This was a funneling area for portage around

the rapids which are just below this site, since the bottomland here is almost non-existent. The area was heavily forested before clearing.

Hx^{v}15. This is the site in the basin nearest the dam, except for some on Vincent's Island, because of the narrowing of the bottomland. There are rapids immediately below this site, which is located on the downstream side of a rock point of land, which is lower than many of the other such ridges. This has resulted in the site being nearer the water level. The soil here is alluvial clay mixed with some sand. The potsherds were found quite near the ridge of land in an area where the bulldozers had been uprooting brush. The area covered only about 100 feet along the ridge, at its base.

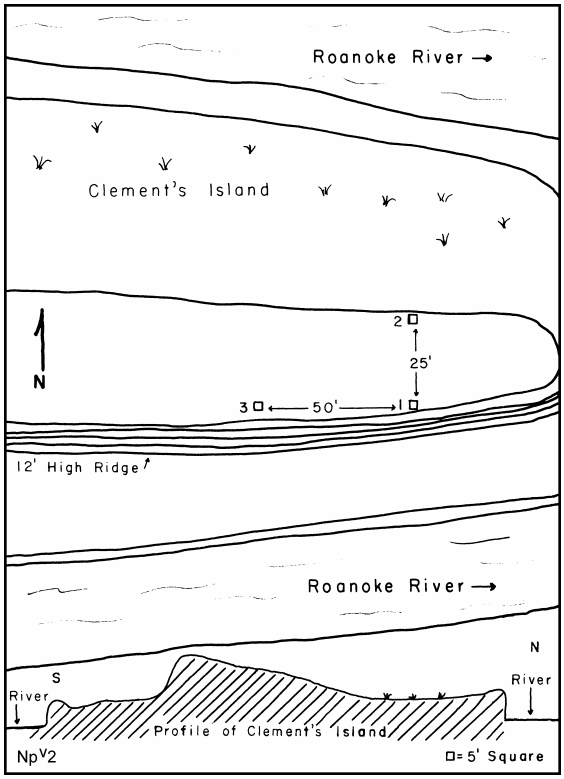
Description of the Sites in Northhampton County

Np^{v}1, ^{v}2, and ^{v}3. These three sites are located on the southeastern edge of Clement's Island, which is near the western end of the basin. They are located on a high terrace, which is about 15 feet high above the level of the river and runs parallel to the river at a distance of about 200 feet from it. This old terrace is highest on the southern edge of the island, declining in elevation toward the northern side to an elevation of about six feet above the level of the water. No sherds were found on this low side of the island.

Np^{v}1 is located on the extreme southeastern tip of this terrace, as it decreases in elevation near the tip of the island. This area had been in thick underbrush before being cleared by bulldozers that had also caused considerable disturbance of the terrace at this point.

Np^{v}2 (Plates 1a and 1b, Map 4) is about 100 feet above Np^{v}1 and had abundant midden and potsherds scattered over the crest of the terrace. The remains of a burial (Plate 1b) were found eroding from the steep terrace bank (Plate 1a). The soil here is black sand, and the midden depth is about 12 inches. A small profile cut was made to determine the depth of the midden, and in this cut was found an antler celt (Plate 37e).

Np^{v}3 is located along the terrace about 200 feet upstream from Np^{v}2. The midden here is very thin, and the color of the soil is more yellow. In the side of the eroding terrace a concentration of sherds was found which was later assembled into a large vessel fragment of Type II Net Impressed.



Map 4. Sketch map of site Np^{v}2.

Excavations at Np^{v}2. The finding of a burial washing out of the bank at this site, plus the presence of sherds in considerable numbers, caused this site to be considered for excavation of a few five-foot squares. Four squares were taken out here on the high ridge that ran along the southern side of Clement's Island. A sketch is shown in Map 4, and a photograph of the ridge is presented in Plate 1a.

Near the edge of the ridge, in squares #1 and #3, the midden accumulation was 12 inches in depth. In square #2, the depth was 14 inches, and in square #4, the depth was 21 inches. Because this square was the only one from which two levels could be taken, the relationship of the pottery types from it will be described. Of the sherds found in this square, 58.7% were of the Vincent Series. Of the sherds found at the 0–8 inch level, the Vincent and Clement sherds were equally divided, but in the 8–21 inch level, 68.8% were of the Vincent types. One sherd of Net Impressed type I was found in the 8–21 inch level of this square.

Plate 1a. Lewis Binford and Jewell South on the terrace at Np^{v}2.

Plate 1b. Bone fragments from a burial eroding from the terrace at Np^{v}2.

Of the total sherds from the other squares in which only one level was found, 81.9% were of the Vincent series. This compares favorably with the 85.8% for the Vincent series from the surface survey of the site, which places this site at the bottom of the seriation of sites in the basin, to be presented in Chapter 4 (see Figure 16).

Np^{v}4, ^{v}5, and ^{v}6. The terrace declines in elevation toward the western end of Clement's Island. Sites Np^{v}4, ^{v}5, and ^{v}6 are located along this terrace, spaced over a one-half mile area. The soil is sand which varies from black to yellow in color. At site Np^{v}5 there was a large quantity of shell exposed on the side of the terrace. Site Np^{v}6 was located at the end of the terrace at the western end of the island. The terrace between this site and the extreme western tip of the island was not present, and no artifacts were found in this lower area.

Np^{v}7 through Np^{v}13. Across the river north of Clement's Island, along the old river levee, are sites Np^{v}7 through Np^{v}13. These vary from 100–300 feet from the present river, the further distance from the river being at the downstream end. The sites are almost evenly spaced over a distance of one mile along the levee. The levee looks very much like a railroad fill near the upstream end since it drops abruptly on both sides. Local residents say this is the result of the soil just back of the levee being removed by slaves and placed on top of the levee to increase its height in order to protect the fields. At any rate, the levee here looks more like a ridge.

The artifacts were found along this ridge and, in instances where the ridge took more the form of a natural levee, artifacts were found away from the levee in the fields as well as on it. No shell midden was observed on any of these sites, and several pieces of trade pipe fragments were found here.

Finding artifacts along this levee depended on the disturbance of the levee by bulldozers as they pushed brush into the river. This factor influenced the even spacing of the sites along this ridge. The bottomland behind the levee had been cultivated, but the levee itself and the area between the levee and the present river had been in forest and underbrush before being cleared. The soil is coarse yellow sand and some places had discoloration to brown and black, especially where the undergrowth had been.

Np^{v}14. One mile upstream from Np^{v}13, on the bottomland immediately beside the present river, is site Np^{v}14. There is no natural levee here; the bottomland drops abruptly to the level of the water. This would seem to indicate that the present channel of the river has been cutting into the bottomland and the site. The potsherds were scattered over an area of about 500 feet along the river, in what had been a plowed field. The soil contained no sand, but was composed of alluvial clay.

Np^{v}15 through Np^{v}19. This series of sites is located on the north side of the river, beginning opposite the downstream tip of Clement's Island and extending along the natural levee for a distance of three-quarters of a mile downstream. The natural levee here is nearer the river, being about 25 feet from it, and six feet high. The artifacts were located along this levee where the bulldozers had disturbed it and along the access road which ran parallel to the levee, and sometimes along its crest. The remains of an old railroad bridge foundation is located near the center of the group of sites. No midden was noticed. The area had previously been in forest.

Site Np^{v}19 is the site in this group that is furthest downstream and is located at the end of the natural levee. From this point for the remainder of the basin downstream to

the dam, there is little natural levee and few sites. The bottomland between these sites along the levee and the foot of the basin rim is a width of three-quarters of a mile. This bottomland has been cultivated at times in the past, but now is being used as pasture.

A short distance below site Np^{v}19, the bottomland is cut in two by a branch of the river that turns north and takes a meandering path near the foot of the basin rim. The islands formed by this dividing of the river into three channels are Tiller's Island and Vincent's Island. This dividing of the river channels occurs at the rapids where site Hx^{v}7 is located on the opposite side of the basin. Site Np^{v}20 is located on the downstream side of a rock ridge of land that is opposite the ridge above site Hx^{v}7. This is the same ridge responsible for the rapids in the river.

Np^{v}20. This site is located on an alluvial clay rise in the bottomland downstream from the ridge of rock. A small stream runs along the ridge of rock at its base and joins the river tributary at the end of the ridge. The area was previously in forest. The type of material found indicates that this is an Archaic site, since very little pottery was found, and several Savannah River and Guilford type projectile points were found.

Np^{v}21, ^{v}22, ^{v}23, and ^{v}25. Directly across from sites Hx^{v}5 and ^{v}6, on Vincent's Island, at the narrowest part of the island, is this series of sites. They are located on the natural levee which is about 15 feet above the level of the water, and a distance of 25 feet from the present shore line. The sites are spaced evenly over an area of one-half mile along the levee. Erosion had cut the levee in several places, leaving only "islands" of the original levee intact. It was on these "islands" that the artifacts were found. The soil was sandy and contained no midden. The area had been in forest before being cleared.

Np^{v}24. This site is located one-half mile further downstream from the series of sites just described. There is abundant shell midden scattered over an area of 300 feet along the levee, which is, at this point, 200 feet from the river. The island at this point is three-quarters of a mile wide, which is the widest point of the island. The levee divides at this site: one levee continues to parallel the river, while the other extends further inland. The area had been in forest. The soil was black sand, but no depth of the black midden could be found over a few inches. The area was quite disturbed by bulldozer activity, a situation typical of many of the sites in the basin (Plate 2a). The large number of sherds found here, plus the high elevation above the river and the midden, caused me to excavate several pits at this site.

Excavations at Np^{v}24. This site contained large quantities of shell midden scattered over the surface area of the terrace (Plate 2c). The bulldozers had disturbed the area considerably, but I thought that some area could be found in which comparatively little disturbance had taken place. Four squares were excavated on top of the terrace, in the area of greatest midden concentration. The results were disappointing in that no depth below eight inches could be found for the midden. The sherds found in the top few inches of the squares were primarily of the Clement series, with the Vincent types constituting the remainder. A sketch map of the site and the location of the squares can be seen in Map 5.

Plate 2a. Lewis Binford and Jewell South taking a break on a typical site in the Roanoke River basin.

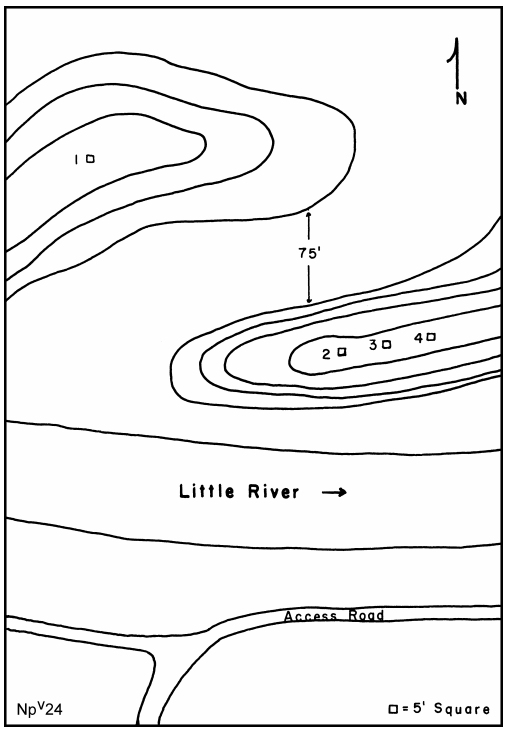
Plate 2b. Stratified profile at Np^{v}46.

Plate 2c. Shell midden on the surface at Np^{v}24.

Np^{v}26. This site is located on the levee that turned inland at site Np^{v}24, about 300 feet from that site. This area was once a plowed field. The levee at this point drops off on three sides to a swampy area. The soil is yellow sand with a very little amount of shell midden.

Np^{v}27. One-quarter of a mile downstream from site Np^{v}24 and on the same levee as it decreases in elevation is site Np^{v}27. The access road cut into the levee at this point and revealed the artifacts. The soil is sandy, with no midden. The area was previously in trees.

Np^{v}28, ^{v}29, and ^{v}30. One-quarter mile further downstream, and on the second levee which is about 100 yards from the present river, is the series of sites to be described here. The levee at this point is very wide and flat on top, affording ample room for a village.



Map 5. Sketch map of site Np^{v}24.

The sites are now in grass, but many sherds were found in areas where the access road cut into this levee. Not all such places produced sherds, but concentrations of sherds were found in the areas of the three sites. The soil is sandy, with no evidence of shell midden.

At site Np^{v}29, at the downstream end of this series of sites and across the river from Hx^{v}4, the access road cut the sand down to the residual clay. On this clay in the access road was found projectile points of the Archaic type. At this site also, the levee that had paralleled the present river met the older levee on which this series of sites was located. The older levee stops, and the more recent levee continues along the present river at a distance of 15–20 feet from the shoreline. On this levee the following series of sites was located.

Np^{v}31 through Np^{v}37. These sites are spaced evenly along a one-half mile area of the levee, near the lower tip of Vincent's Island. The rapids begin at this point. The sites are spaced according to the disturbance of the bulldozers, which pushed trees and brush into the river at these points. The sherds were found wherever the levee had been disturbed. The soil was sandy, and no midden was visible. The area had been a forest.

Np^{v}38 and Np^{v}39. These two sites are located on the lower tip of Vincent's Island, directly opposite the series of sites just described, on the north shore of the island. No levee is visible on this side of the island, but the bottomland drops off abruptly 20 feet down to the level of the river. These two sites are located along this steep bank where bulldozers cut a road down to the river level in order to push debris out into the river. The soil is sandy with no evidence of midden. The area was in trees prior to clearing.

Np^{v}40, ^{v}41, and ^{v}42. These sites are located on the levee of the south bank of Vincent's Island, at its extreme upstream end. The area is in grass, and the sherds could only be found when there was a bare place in this grass. The soil was sandy. There were

some tree trunks, but their age indicated they were cut before the present clearing operations began. There were a few erosional gullies in which some of the artifacts were found.

Np^{v}43, ^{v}44, and ^{v}45. These three sites are located on the north side of Vincent's Island, diagonally across and slightly downstream from the series of sites just described. There is no levee here, but the bottomland drops abruptly for 20 feet to the level of the water. The sites were located along the access road where it cut into the sand near the edge of the river bank. The area had been a cultivated field.

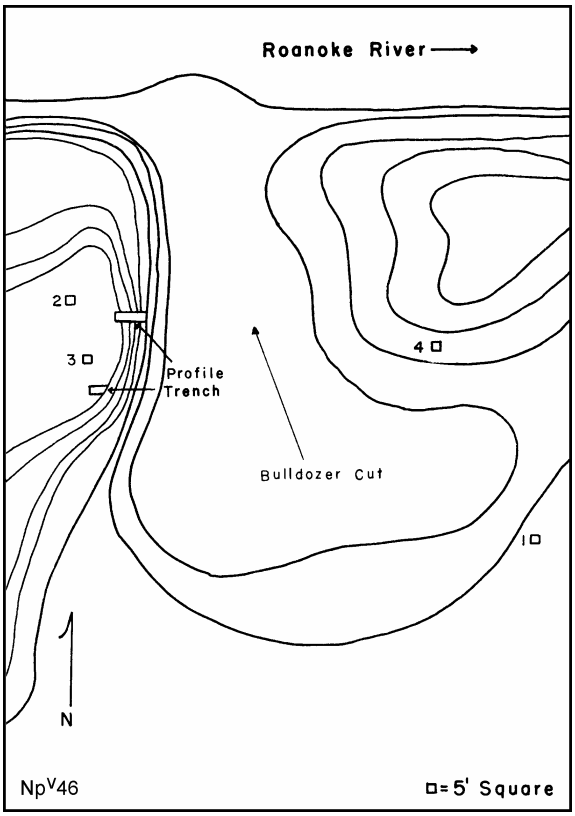
Np^{v}46 through Np^{v}51. This series of sites begins on the north side of Vincent's Island opposite Canoe Creek and extends for a mile and a quarter upstream. There is no natural levee here, but a high bank drops directly to the water's edge, a drop of 15–20 feet. The sites were found where bulldozers had disturbed the area. Site Np^{v}46 contained quite a few sherds in very good condition, and many of them were of a net-impressed surface finish. For these reasons this site was marked for digging of test pits. Throughout the area tree stumps gave evidence of previous forest, but at the time we were there, the area was in grass.

Np^{v}52 through Np^{v}55. These sites are directly across the river from site Hx^{v}7, on Tiller's Island. There is no levee here, and the fields were once cultivated. They are presently being used for pasture. The sites are spaced over a one-half mile area along the river's edge. The sherds found here were eroded, and scarce. No bulldozer activity was evident. The soil was alluvial clay and sand.

Excavation of Squares at Np^{v}46. As mentioned above, this site was of interest because of the large number of sherds found on the surface (n=884) and the relatively high percentage of net-impressed sherds. Four five-foot squares were excavated here with very little success. A sketch map of the site is shown in Map 6.

In order to determine if any stratigraphy was present, a profile was cut on the edge of a bank formed by a bulldozer cut into the site. This profile was cut to a depth of seven feet, and showed alternating layers of dark and light soil indicating alternate periods of flooding and vegetation on the site (Plate 2b).

The excavation of a five-foot test square directly behind this profile, to a depth of four feet, produced no cultural material of any kind. A profile trench of three feet in depth was dug 10 feet further away from the river toward the center of



Map 6. Sketch map of site Np^{v}46.

the site in an attempt to find cultural materials in stratigraphic layers. The clay subsoil lay at a depth of three feet here, and a square was excavated near it but it, too, produced no cultural material. The dark layers that show up so well in the profile in Plate 2b produced nothing; square #1 produced nothing; and square #4 yielded only a dozen net-impressed sherds of the Clement and Vincent types.

The experience with this site demonstrated that although good stratigraphy may be present, cultural material must also be present in the strata to be of temporal value to the archaeologist.

Np^{v}56 and Np^{v}57. These sites are located on each side of the mouth of Canoe Creek as it enters the Roanoke River. The soil is alluvial clay and the area had been in forest. The material was found in bulldozed areas, but not much disturbance had occurred. Very little cultural material was found, but enough to establish the presence of an occupation site.

Np^{v}58. This site was located beside a small stream entering the river one-half mile above Canoe Creek. The rim of the basin descends directly to the river at this point, no bottomland being present. The artifacts were found on the side of the hill along this stream. The soil here was residual clay. The area had been in forest.

Np^{v}59. Three-quarters of a mile further upstream, near the foot of the basin rim and surrounded by a swamp, is site Np^{v}59. The soil is residual clay eroded from the steep basin wall. Bulldozers had disturbed the area.

Np^{v}60. One-half mile further upstream, opposite the downstream tip of Tiller's Island, is site Np^{v}60. There is a levee along this bank of the river, and for a mile downstream along this levee there is no sign of the occupation debris that was noticed on other levees in the basin. At this point, however, a few sherds were found. The area had been in forest, and the soil was alluvial clay and some sand.

Np^{v}61. One hundred yards upstream from Np^{v}60, below a ridge of rock and beside a small stream, is site Np^{v}62. The soil is alluvial clay. The area was a forest before clearing.

Np^{v}62. One mile downstream from Np^{v}61, on the natural levee of sand at its end above a ridge of rock, is site Np^{v}62. The area was in forest, and the levee here is 12 feet above the level of the water. The area had been disturbed by bulldozer-wallowing activity. The site covered an area of 50 feet at the end of the levee.

CHAPTER 3

THE ARTIFACT TYPES

The Method of Establishing the Pottery Types

After the 33,787 sherds examined in this study had been washed and given catalog numbers, and these numbers were written on the majority of sherds in each site, feature, or level, an analysis was begun by dividing the sherds into pottery types. A pottery type is based on the observable physical characteristics of the sherds, not one characteristic alone but a combination of several observable features. These features are surface finish, temper, hardness, texture, firing, rim form, and body shape.

Pottery types are based on certain combinations of these features established by the archaeologist. These categories don't necessarily represent the same types recognized by the aboriginal makers of the pots. However, there is an assumption that some combinations of sherd characteristics (patterns) do reflect certain formulas or ways of making pottery that were recognized by the Native American potters.

If the combination of characteristics, called a type, proves to have a stratigraphic and areal distribution that can be consistently observed, then the archaeologist assumes a valid type is represented—one that reflects a way of making pottery practiced by a group of Indians at a certain place and time. For this reason, archaeologists concern themselves with pottery types as a tool that enables them to construct a time-and-space perspective of Indian cultures.[1] Pottery types alone do not enable one to know much of the culture of the Indians, but by using pottery sequences as a time-and-space framework upon which to attach the various other associated cultural forms, an explanation of the evolution of the Native American culture can be derived.

In order to determine the relationship between the various established types, sherds are counted under the assumption that each one theoretically represents a whole pot and the percentage relationships between them reflect past cultural practice. It is true that large pots make more sherds than small pots, but it has not been demonstrated that this factor greatly affects the pottery type relationships in large collections of sherds.

Experiments have been conducted with sherds utilizing weight rather than count as the measuring criterion, thus taking into consideration surface area, but these have not produced significantly different results from the sherd count method.[2]

In my study the sherd count method (quantitative analysis) was used to determine the pottery type relationships. Once the types were established and the count made, percentages were computed for the various types according to the levels, surface collections, features, etc., in the assemblage. Tables were made showing the various relationships, and if the pottery types followed a consistent pattern stratigraphically and areally, my assumption was that the types are valid; if they are not, then new types may have to be established utilizing different combinations of criteria.

In establishing these relationships, it may be found that a group of types similar in temper, paste, and firing, but different in surface finish, decoration, and other more

refined criteria, fall together stratigraphically and areally. Such groups of types are often combined into what is known as a pottery series. The method just described, of first establishing the types and then establishing the series, is the process of going from the particular to the general.

A process of going from the general to the particular is used when the sherds are classified according to their general impression of surface finish and temper, without attention being paid to the detailed attributes of individual specimens. In this method, the types are defined after the basic categories are established.[3] In the present study the types were first established, and the series was defined after determining the association of the types. It should be emphasized that the archaeologist should first establish the validity of the types stratigraphically and areally, and then demonstrate the association of certain types in time and space, and then, and only then, should he call his group of types a pottery series.[4] The practice of forming pottery series on the basis of repeated occurrence in surface collections of the same pottery types, without adequate stratigraphic evidence, only tends to further muddy the water.

Before going into a description of the method used in this survey, an explanation of the terms used to describe the pottery types will be given.

In this analysis 44.5% of the sherds were impressed on the exterior surface with a series of cord marks. These marks had been made with a paddle wrapped with a cord, which may vary in size, many large sherds showing clearly the impression of the paddle. This type surface finish is referred to as *cord marked*.

Of the sherds in the analysis, 35.5% were impressed on the surface with a fabric. This, too, was wrapped around a paddle and impressed on the exterior surface of the vessel. The weave of the fabric was usually plaiting and varied in size from large coarse mesh, with large warp and weave, to a fine mesh. This type surface finish is referred to as *fabric impressed*.

Thirteen and one-half percent of the sherds were impressed on the exterior surface with parallel lines similar to the cord-marked sherds, but these were made with a smooth wrapping, probably sinew or small vine. This type surface finish is referred to as *simple stamped*.

Similar to the above described simple-stamped surface finish is a group of sherds whose surface was stamped with a carved wooden paddle having parallel lands and grooves. In the first analysis these two types of surface finish were kept separate where the difference could be detected, but on the basis of seriation and stratigraphic evidence, they were later included into the same category—simple stamped.

Net-impressed sherds have the surface impressed with either a knotted or looped net wrapped around a paddle. Only four and one-half percent were of this type. Ninety-eight percent of the sherds were either cord marked, fabric impressed, simple stamped, or net impressed on the exterior surface. A few sherds have the surface impressed with a paddle upon which a grid or check design has been carved. This type surface finish is referred to as *check stamped*.

A very small percent of sherds were impressed on the exterior with a corncob rolled over the clay while it was wet. This gives a "fingernail punctate" appearance. This type surface finish is referred to as *corncob impressed*.

The only other type surface finish found on sherds in this survey was a smoothed surface. This surface was plain and revealed no difference between the interior and

exterior. Both surfaces appeared to have been smoothed with the hand. This type surface finish is referred to as *plain*.

The interior of the sherds could be classified according to surface finish, as was the exterior. These are: (1) *finger smoothed*, which is smoothing by swiping the hand over the interior while the clay is still wet; (2) *scraped*, which is done with a seriated shell or tool, leaving parallel scraping lines on the interior; (3) *burnished*, which is polishing of the interior with a polished pebble or other tool (both scraping and burnishing are referred to as tooled); and (4) *rough*, which is most often the result of erosion of the sherd.[5]

The temper of the sherds proved to be a significant variable in the present survey. The material used to mix with the clay varied from water-worn pebbles and large fragments of crushed white quartz to sand varying from coarse to very fine. In some instances very fine particles of crushed quartz and feldspar were used.

Establishing valid pottery types in this survey involved many months of examining, counting, and recording sherd characteristics on analysis cards. After the 33,000 sherds were analyzed on the basis of the first group of types, and charts were made so that a visual picture of the relationships could be determined, it was discovered that few significant relationships could be seen between the types as broken down at that time. Percentages from various combinations of types were combined in an effort to see some significant relationships. Some trends were evident between the mass of cord-marked and fabric-impressed sherd types and the simple-stamped types, but no finer relationships or associations could be seen. I decided that the only thing to do would be to establish new types, and, on new analysis cards, go through the 33,000 sherds again and take another count using the new types based on a new combination of criteria. This involved several more months of sherd counting and resulted in the successful establishing of the types and pottery series described in this report.

The analysis began with the Gaston site ($Hx^{Y}7$). The surface collection was examined first because it contained sherds of a variety of surface finishes and temper. These sherds from the site were divided into piles on the basis of surface finish, and then each pile was divided into two piles according to the size of the cord or fabric surface finish, whether large or small. Finally, these piles were divided into three piles each on the basis of whether the temper was crushed quartz, river pebbles, or very fine sand. This procedure produced six tentative types, all having the cord-marked surface finish.

The same thing was done for the fabric-impressed sherds. It was evident that since such a high percentage of sherds were either cord-marked or fabric-impressed sherds, other criteria would be more important as variables than surface finish alone. This is why a detailed breakdown of the cord and fabric types was undertaken. The simple-stamped sherds were divided according to sinew or angular groove stamping, but these were later recombined. They were also kept separate according to temper and interior surface finish. The net-impressed sherds were separated according to whether a knotted or looped net had been used, along with temper and paste differences, but they all were later recombined. The check-stamped sherds were separated on basis of temper, size of check, paste, and interior surface finish, but they all were subsequently combined into one type.

As each sherd in one of these categories was examined, the interior surface finish was noted on the analysis card. From the analysis card totals a variety or percentage relationships could be calculated. The rim and basal sherds were counted and kept separate from the body sherds. Before the rims were placed back in the bag from which

they were taken, they were drawn in profile, and interior and exterior surface designs and finishes were sketched on the analysis card along with any notations as to peculiar characteristics of any particular sherd. A few of the typical rim, body, and basal sherds from each lot examined were placed in one of a series of shallow boxes numbered A, B, C, etc. Each of those tentative types was assigned a box and a letter, and was referred to by the letter on the analysis cards. The sherds in these boxes served as a guide to aid in keeping the type consistent as the analysis progressed. At the end of the analysis, if the types were found to be valid, the sherds in these boxes would be used to write the description of the type and to draw composite pictures of the vessel shape from rim, body, and basal sherds. These sherds were also used in any illustrations that were needed to illustrate the type. This method of handling and typing potsherds enabled me to handle a large number of sherds in a comparatively small space.

To some archaeologists, "the distinctiveness of pottery types was evident even in the earliest state of the pottery classification of the sherds," but such a convenient situation was not the case with the present survey. [6] After a complete counting of sherds from the surface collections and from the excavated levels and features at the Gaston and Thelma sites, the percentage relationships were calculated and these were plotted as bars on a graph. In this way a visual picture of the relationships of the types could be seen if they existed. No significant results could be seen on the basis of the stratigraphic evidence, especially with the cord and fabric surface finish types in which it was hoped a separation could be seen between some of the tentative types.

The types from the excavated features and the surface collections were plotted as bars on a strip of graph paper. These strips were then arranged in various positions in an attempt to arrive at a picture of some trend of the bars. This method of pottery analysis is known as "seriation," and will be discussed in a later section. For the present it is sufficient to say that this method, when used with this first group of types, did not indicate any trend except to show an inverse relationship between the simple-stamped types and the cord and fabric types. A more refined picture was desired, however, and a new set of types was established, this time using a different combination of pottery features.

The first analysis had been based on a detailed breakdown of pottery features on the assumption that the significant variables would be included in such a breakdown. Evidently, however, the variables of cord and fabric size, large crushed quartz temper, river pebble, and sand temper were not the significant ones in the development of the cord and fabric pottery tradition in this area. These factors were ruled out in the second analysis, and a new set of variables was tried. It was decided that instead of breaking the cord-marked and fabric-impressed surface finish sherds into six types each, only two types each would be used. The size of the cord or fabric was not considered of importance, nor was the large crushed quartz and sand. The primary variables used in the second analysis to break the cord and fabric surface finished sherds into two categories were paste and temper. Temper had been considered in the first analysis but the criteria used for the size of the temper was evidently wrong. Paste had been little considered in the first analysis, and therefore, it was thought that it might be the significant variable. Paste and temper characteristics were considered important in the second analysis for determining the difference between the pottery types. It was often necessary to break a corner of the sherd in order to definitely determine the paste and temper characteristics.

Two paste groups were discovered—a gritty, sandy paste group and a smooth, hard paste group. These two groups were named the Clement and Vincent series.

When the second analysis was completed and the percentages were compared by the use of bar graphs, the difference between the new types could be seen on the stratigraphic chart and on the seriation charts of the excavated features at the Gaston site.

With stratigraphic and areal association of the Clement cord and fabric and the Vincent cord and fabric types, I was able to consider them as two separate pottery series. The analysis of the associated artifacts could now be undertaken.

In describing the pottery types and series in this study, the types with most verification for their being considered as indicators of cultural processes are represented by the Clement, Vincent, and Gaston series. Types without enough verification or cultural significance have been described by use of their surface finish name. Types described and named by other archaeologists, and found in minor amounts in this survey, have been kept as originally described.

The Roanoke Series

It was noticed during a reexamination of the pottery, and during the first analysis also, that certain cord and fabric sherds of a grainy and crumbly paste were characterized by a high percent of finely crushed quartz and feldspar mixed with sand. The more crumbly sherds had a high percentage of golden mica in the paste. These "mica tempered" sherds are included in what Joffre Coe has called the Roanoke series.[7] In this study the Roanoke series is represented by the two types—Type II Cord-marked and Type II Fabric Impressed.

The Gaston Series

The Gaston series was separated mainly on the basis of the simple-stamped surface finish regardless of the paste and temper. This was done because a separation on the basis of temper and paste did not prove significant. Throughout the study the Gaston Simple Stamped type has been tabulated separately from the other types of the series due to the high percentage of these sherds in the series. Types associated typologically and temporally with Gaston Simple Stamped pottery also in this series are Type I Cord-marked and Type I Fabric Impressed.

The Clement Series

Pottery types with a high percentage of finely crushed quartz and sand, and whose paste was medium hard and gritty, were held as companion types with the surface finish varying. The two types in this series are Clement Cord-marked and Clement Fabric Impressed. These types were found to be associated through stratigraphy and through seriation, thus constituting a valid series.

The Vincent Series

Types with a hard, smooth, and compact paste tempered with very fine sand and an occasional large fragment of crushed quartz or water polished pebbles were companion types with surface finish varying. Sherds of these types do not have the gritty, "sugar-

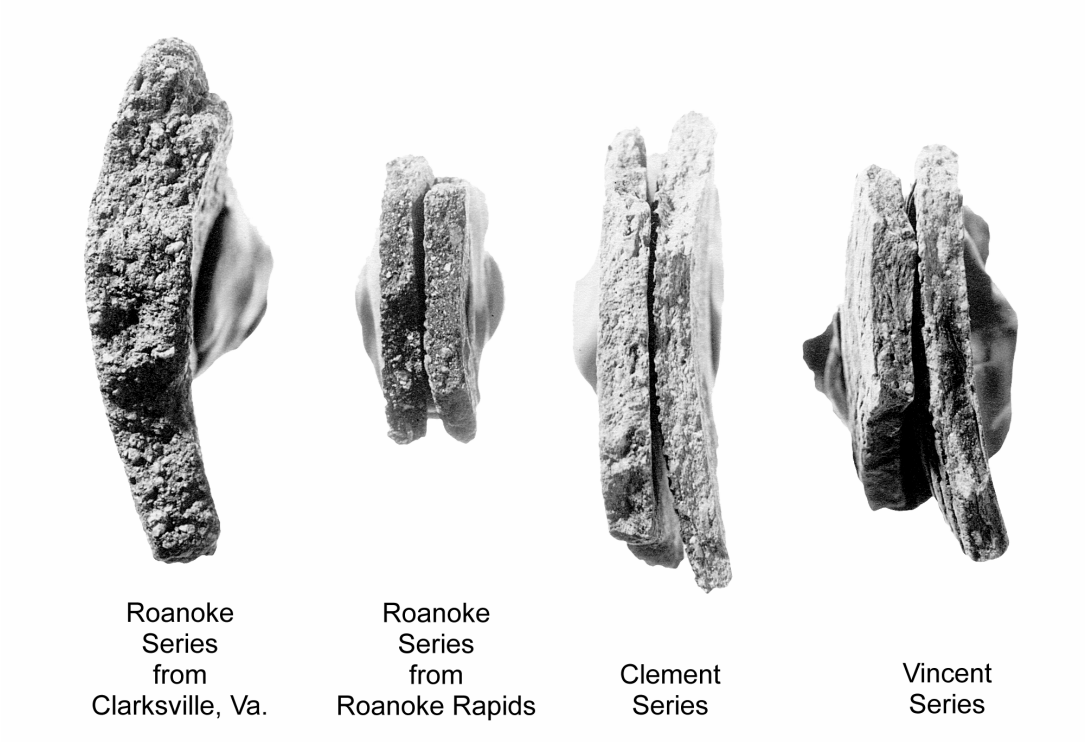


Plate 3. Cross-section views of sherds of various series showing temper.

filled" look of the Clement series sherds, but are very compact, with less tempering than the Clement series (Plate 3). Types of this description falling in the Vincent series are Vincent Cord-marked and Vincent Fabric Impressed.

The Pottery Type Descriptions

Gaston Simple Stamped (Plates 4–7, Figures 1–4)

Paste

Method of manufacture: The body is composed of annular segments, and the fractures are usually across the coils.

Temper: Crushed quartz, from the size of sand to 6 mm. High ratio of temper to clay. Some sherds have a high content of golden colored mica particles.

Texture: Smooth, compact as a rule, but occasionally the temper gives a slightly gritty feel to the sherds, and sherds containing mica tend to crumble.

Hardness: 2 ½ to 3 ½.

Surface Finish

Exterior: Stamped with a thong or sinew wrapped paddle or with a carved paddle with angular parallel lands and grooves. Lands are 2 mm and grooves 2–3 mm wide. Most stamping was done so that the parallel rows of lands and grooves are parallel with the rim, or at a slight diagonal.

Interior: Tooled by scraping with a serrated object, or smoothed by use of smooth stone or other object, so that the temper is pressed into the paste. Hand smoothing is present on some sherds.

Decoration

Lip: Lip is usually stamped with the same paddle used to produce the surface finish on the exterior of the vessels. The parallel rows of lands and grooves are at right angles to the rim. The edge of the paddle was sometimes used, producing dowel-like impressions at intervals of about 2 cm along the lip. Some lips are smoothed by use of the same smoothing tool used on the interior of the vessel.

Rim: A wide variety of rim decoration is characteristic of this type. The edge of the thong-wrapped paddle was occasionally used along the rim down the outside of the vessel 1–1.5 cm. The corner of a right-angled paddle was often used to make a series or gashes around the rim. These were from 5–7 mm apart. The edge of a rounded paddle produced dowel-like impressions on some rims, and sometimes fingernail punctations were used as decoration between the paddle corner decorations. These were applied along the edge of the lip, rather than further down on the rim itself. Rows of very close finger punctuations and stick gouges are also used as decoration of the rim.

All these decorations were applied either along the edge of the rim, cutting into the lip, or down on the rim proper, sometimes 1 cm below the lip. Most of these decorations were applied to thickened rims, but not all rims were thickened. When folded rims were used, the whole fold would sometimes be decorated by a series of diagonal impressions made with a stick. These were usually about 2 mm apart. Most folded rims were punched at the lower edge of the fold with the corner of a square-cornered paddle or stick as if to weld the fold to the body of the vessel. Interiors of some rims were paddled with the edge of a paddle, leaving indentations where the thong crossed the edge of the paddle. Other interiors were gouged with the corner of a paddle or stick, leaving rows of scars around the interior of the vessel.

Neck: The neck of the vessels of this type frequently received special attention. The neck was often scraped with the same seriated tool used to finish the interior of the vessel. Sometimes this scraping was used as a treatment before applying incised line decorations, and sometimes it stood alone as the neck decoration.

The incised lines begin at the row of rim decorations and extend down the neck of the vessel from 7–8 cm in opposite diagonal angles. There are usually three incised lines paralleling each other at a distance of 7–10 mm. These three lines form an open-ended triangle with the next three parallel lines. This open triangle is sometimes closed by a series of incised lines paralleling the lip of the vessel. Occasionally along the neck at a distance of 1.5 cm from the lip is a series of three punctated holes made with a pointed instrument.

Some necks are decorated with a series of round punctations seemingly made with a cane or reed, being 1 cm across and 5–7 mm apart, at a distance of 1.5–2 cm below the lip. The incised lines are made with a sharp stick or sometimes a rounded object. They are from 1–3 mm wide.

On some sherds the neck at the point of greatest constriction has been smoothed with a tool to a width of 3–5 cm.

Body: Some body sherds, which may have come from around the shoulder or neck area, are decorated with incised lines. Some of these incised lines are parallel and intersecting lines only, but some appear to be stick figures of animals.

Form

Rim: Usually flaring, but a few are straight.
Lip: Usually flattened by tooling or decoration of the lip, but some are rounded.
Body: Globular jars with some miniature forms. Oral diameter 28–40 cm, with miniature forms 9 cm in diameter.
Base: Rounded.
Thickness: 4–7 mm, with miniature forms 3–4 mm.
Appendages: None.

Probable Relationships of the Gaston Series

The treatment of the outer lip with notches, which is characteristic of the Gaston type, is also very characteristic of the Dan River Siouan pottery made by the "Sara Indians in the Dan River area along the Virginia-North Carolina boundary between 1625 and 1675." [8] Also characteristic of the Dan River pottery is the combination of parallel incised lines and punctation. The vessel forms and flaring rims are also characteristic of the Dan River pottery. The smoothed area around the constricted part of the neck of the vessels is also a Dan River trait.

Another trait not characteristic of the Dan River pottery, but which appears on the Gaston pottery, is folded rims with a series of punched indentations welding the lower portions of the fold to the body of the vessel. This trait is characteristic of the Clarksville pottery of the Siouan Saponi occupation of the Roanoke River near Clarksville, Virginia, at the same time period as the Dan River pottery. [9] In some cases the Gaston potters combined a Clarksville folded rim with lip treatment characteristic of the Dan River pottery.

Other traits not characteristic of either the Clarksville or Dan River pottery that appear on the Gaston sherds are a folded rim with a series of parallel gashes out into the rim fold, extending around the vessel along the fold and the simple-stamped exterior surface finish of the vessel. Both these traits are characteristic of the Hillsboro focus in piedmont North Carolina representing the Siouan-Saponi-Occaneechi occupation between 1700 and 1725.[10]

From these data it would appear that the Gaston pottery is primarily a result of a combination of Siouan traits. The decoration, form, and lip treatment result from influences toward the west, while the surface finish and some rim fold treatment was similar to influences also felt further southwest at Hillsboro. Thus, it would appear that the Gaston pottery material would have to fall somewhere between 1650 and 1725. Perhaps when further excavation on sites with simple-stamped pottery is undertaken, more information can be added to help clarify the Gaston pottery relationships. Perhaps further studies will succeed in breaking down the Gaston type as described here (Plates 4 through 7) into separate types indicative of more refined time periods.

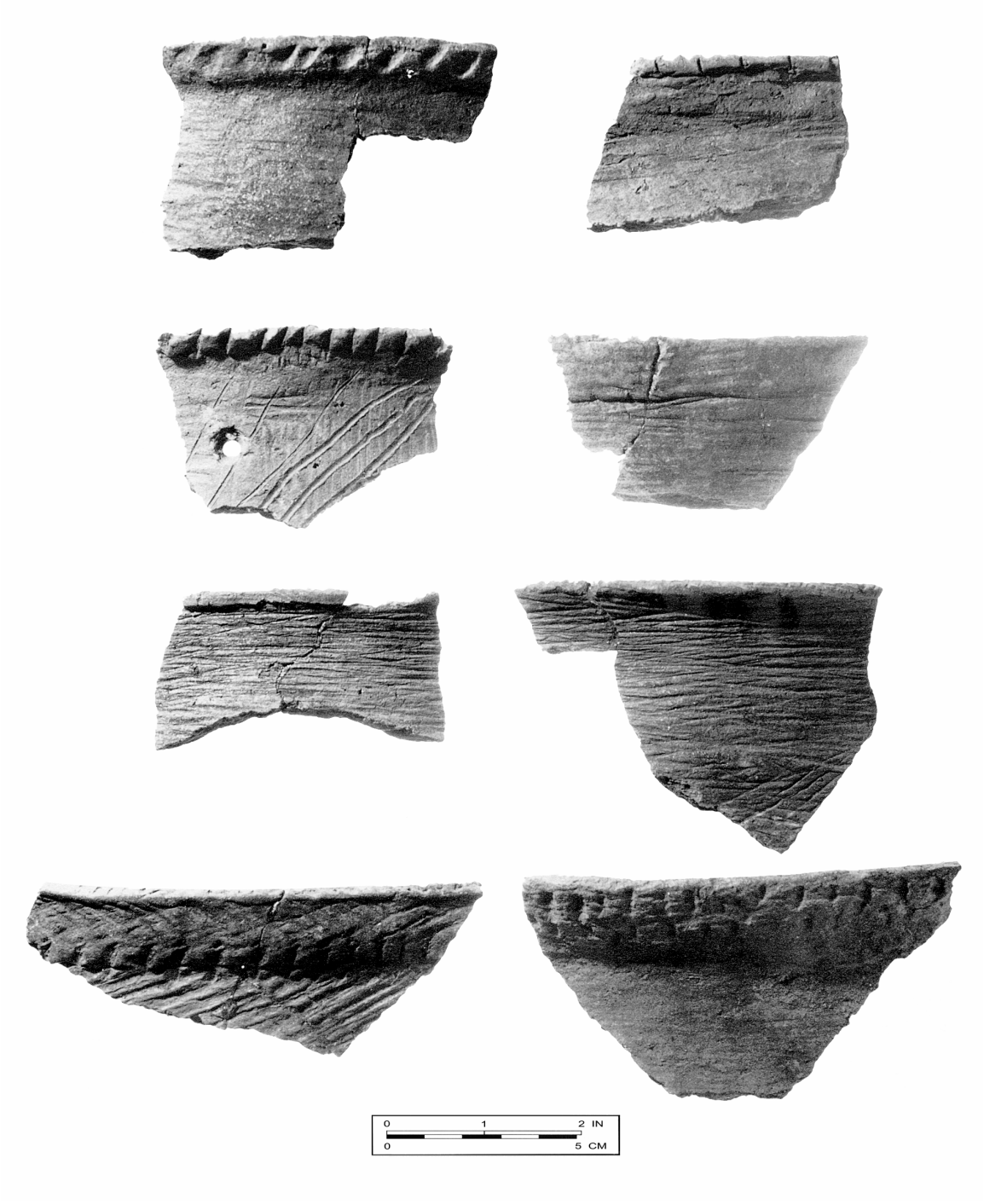


Plate 4. Gaston Simple Stamped sherds. Top left: thickened rim; Top right: fingernail punctated lip; Row 2, left: incising and notching of rim, characteristic of Dan River pottery. Row 2, right, and Row 3: sinew-stamped surface finish. Bottom left: folded rim showing lower rim fold treatment characteristic of Clarksville pottery. Bottom right: thickened rim with punctuations.

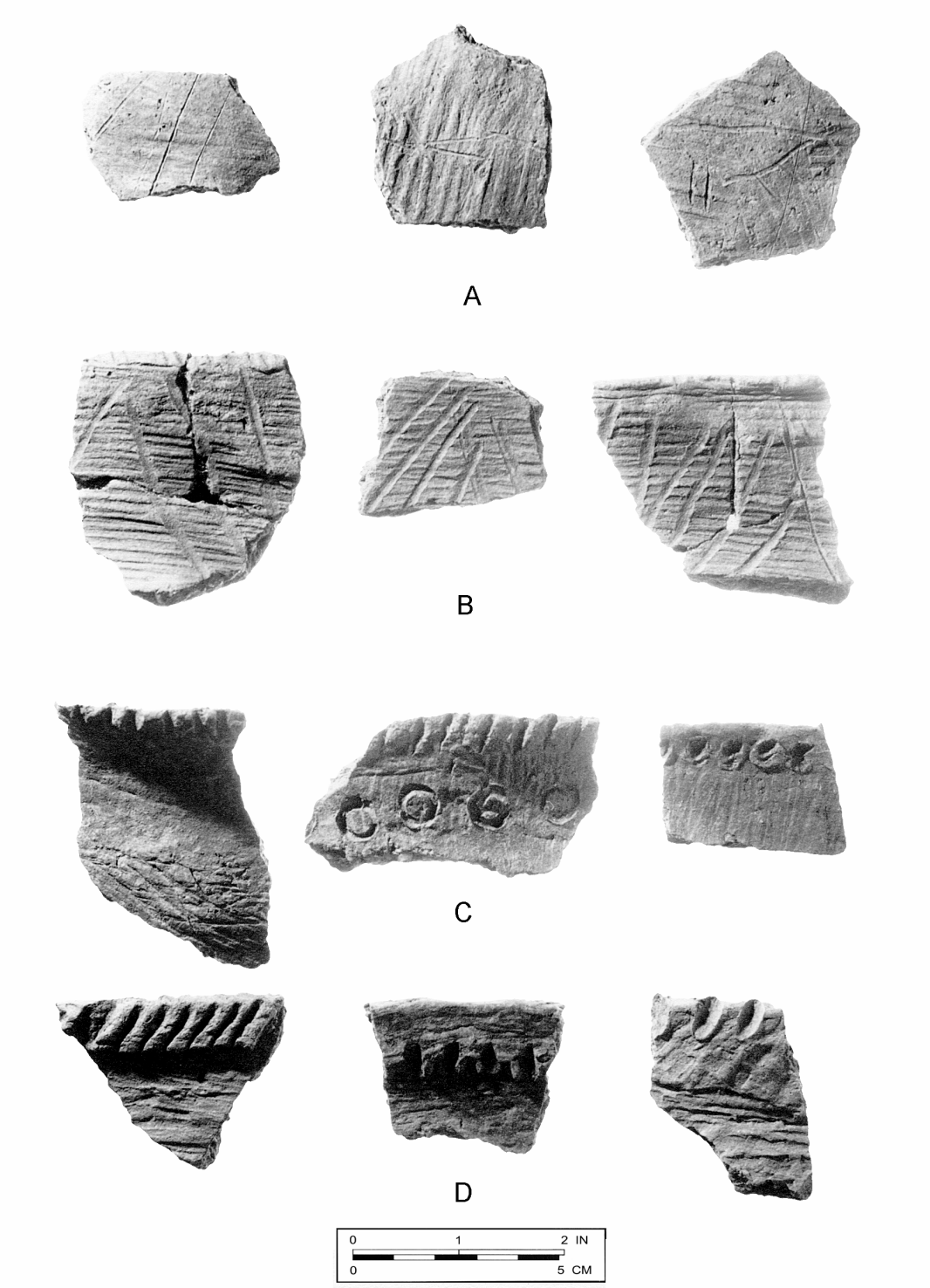


Plate 5. Gaston Simple Stamped sherds. Row A: incised sherds over carved-paddle simple-stamped surface finish; Row B: incised sherds using rounded incising tool, Dan River influence; Row C: sherds showing scraped neck and notched rim characteristic of Dan River pottery; Row D, left: folded rim characteristic of Hillsboro pottery; Row D, center: folded rim showing braided, stick-punctated lower edge of rim characteristic of Clarksville pottery; Row D, right: folded rim, with lip notching treatment of Dan River influence.

Plate 6. Gaston Simple Stamped sherds. Top: large rim sherd showing Dan River influence of incising and punctations and notched outer lip. Bottom: large rim sherd showing pinched rim decoration.

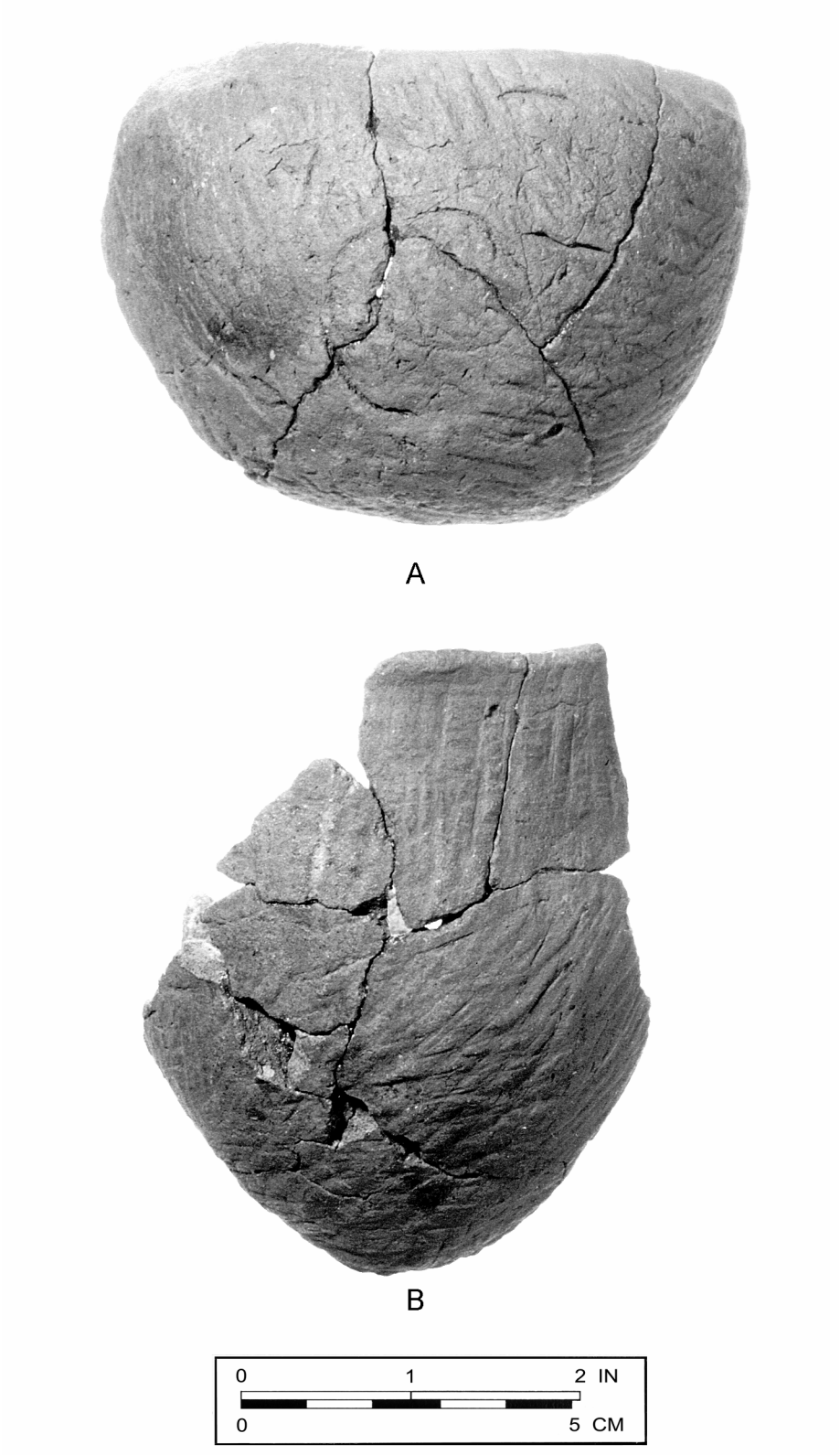


Plate 7. Miniature bowl fragments. A: miniature bowl of Vincent type from large pit in square 65 at the Thelma site. Three inches high. Catalog no. 620p104, Feature 1. B: miniature vessel of Gaston type from Feature 181 at the Gaston site. Four inches high. Catalog no. 619p1385, square 40L15.

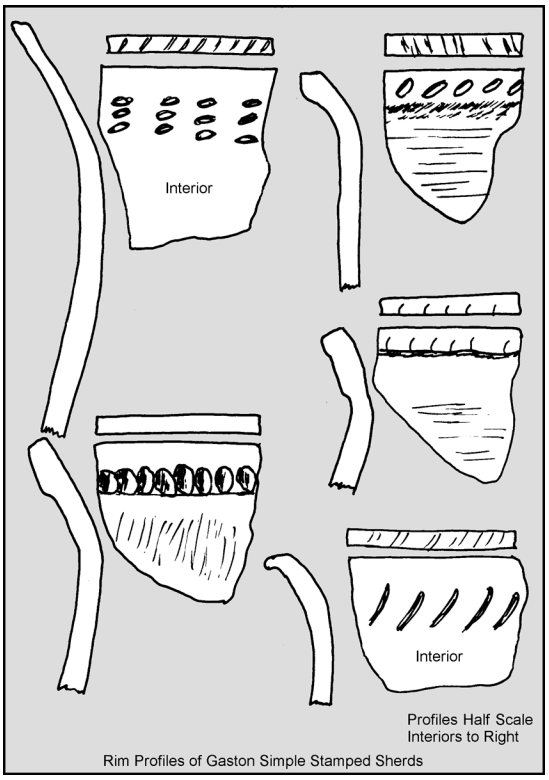


Figure 1

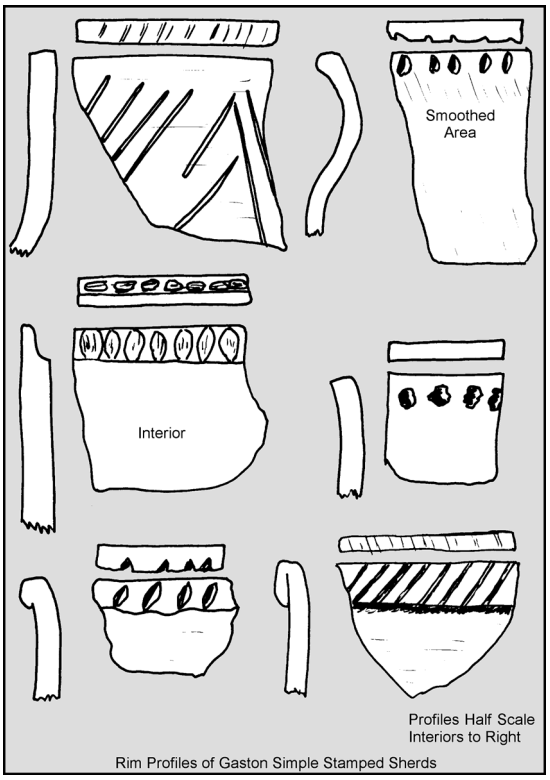


Figure 2

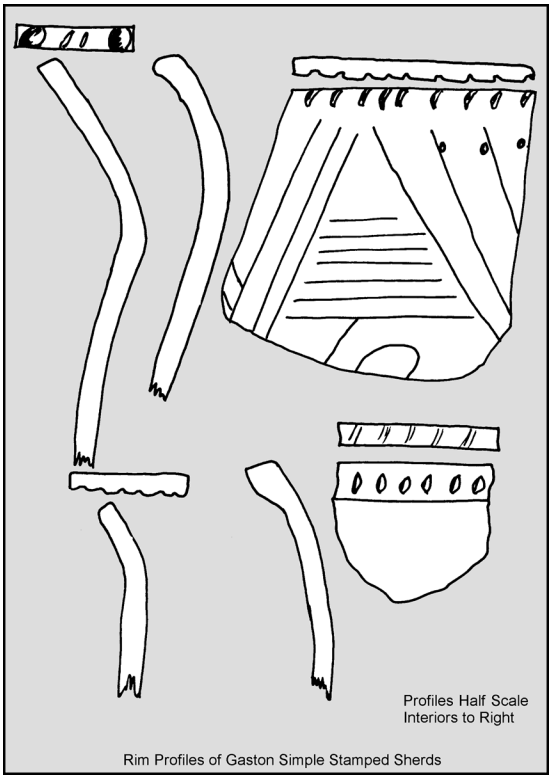


Figure 3

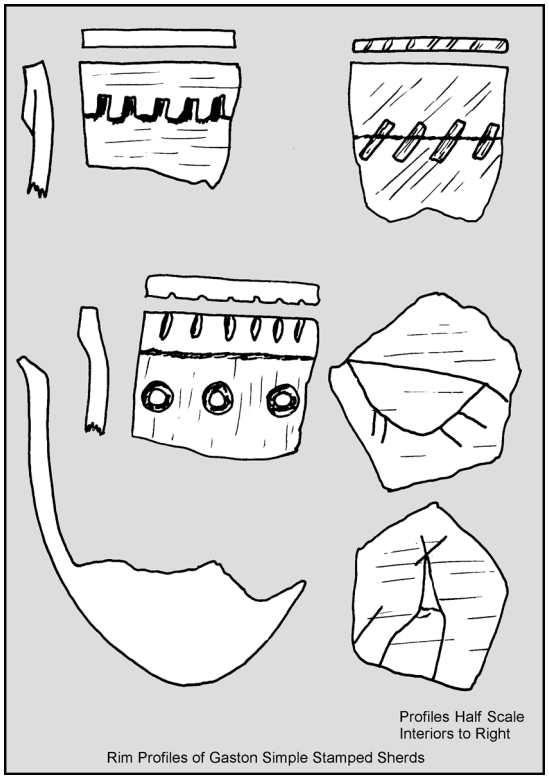


Figure 4

Figures 1 to 4. Sketches of rim profiles of Gaston Simple Stamped sherds. Interiors to the right.

Clement Cord-marked (Plate 8, Figure 5)

Paste

Method of Manufacture: Annular segments throughout the body, with a disc for the base on several specimens. Coiling well blended with fracture usually not along coil lines.

Temper: High percentage of crushed quartz and sand ranging from minute particles to large angular pieces, .05 mm to .7 mm. This high percentage of small crushed rock and sand is the primary way sherds of this type can be distinguished from the Vincent Cord-marked type. This gritty temper gives the sherds a "sugar filled" look in cross-section. (see Plate 3).

Texture: Compact, granular, rough, and gritty on eroded sherds.

Hardness: 2 ½ to 3.

Color: Orange-gray to black. Interiors orange to black.

Surface Finish

Exterior: Impressed with a cord-wrapped paddle, with a tight S twist 1–1.5 mm in width giving a sharp, distinct cord impression. The parallel rows of cord are vertical to slightly diagonal to the rim with some cross-stamping which seems to be spaced at intervals over the body of the vessel as though it may have been a decorative feature.

Interior: Smoothed by hand, with swipings visible on most non-eroded sherds.

Decoration

Lip: Mostly rounded and finger-smoothed, but occasionally light cord impressions are made on the lip after finger-smoothing. These impressions are most often at a right angle to the rim and occasionally they parallel it.

Neck: None, except perhaps the use of cross-stamping as decoration at intervals over the body.

Rim: None, except an occasional paddling with the side or edge of the paddle.

Form

Rim: Straight to very slightly flaring.

Lip: Rounded except when lightly paddled, in which case they are slightly flattened. Some slightly thickened as result of smoothing of the lip with the fingers.

Body: Large globular jars with conoidal bottoms.

Base: Conoidal to rounded.

Thickness: 6–10 mm with bases 2 cm thick.

Appendages: None.

Clement Fabric Impressed (Plates 9, 10, Figures 6–8)

Paste

Method of Manufacture: Same as Clement Cord-Marked.

Temper: Same as Clement Cord-marked.

Texture: Same as Clement Cord-marked.

Hardness: Slightly harder than Clement Cord-marked, 3 to 3 ½.

Color: Same as Clement Cord-marked.

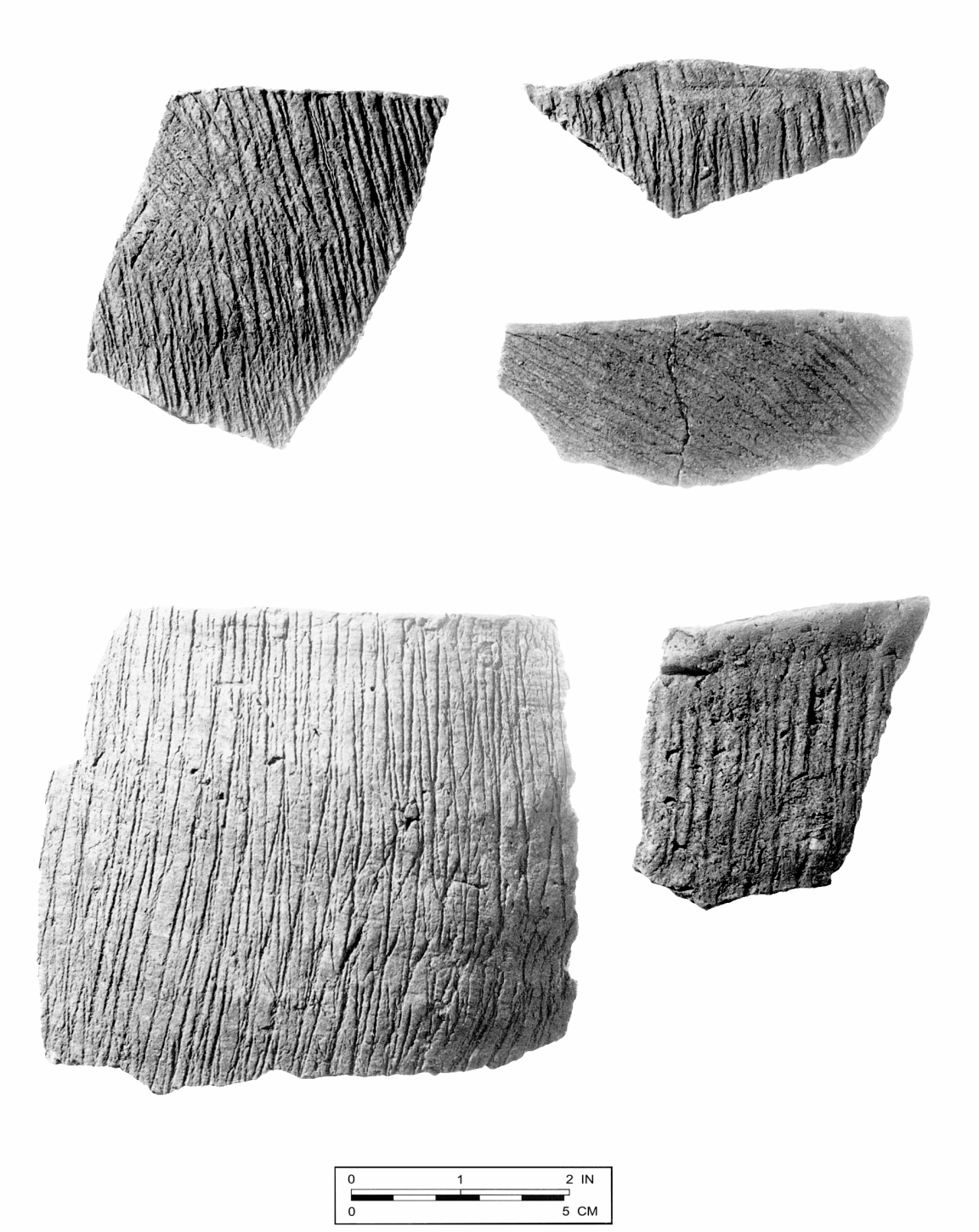
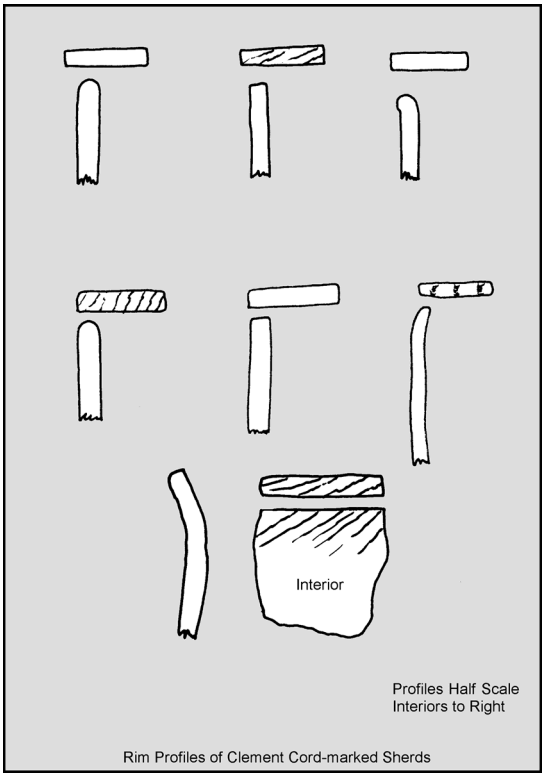
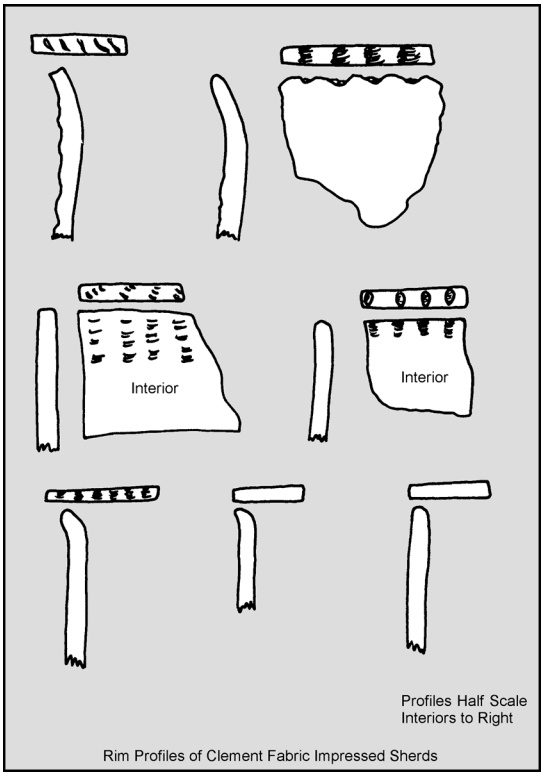


Plate 8. Clement Cord-marked rim sherds.





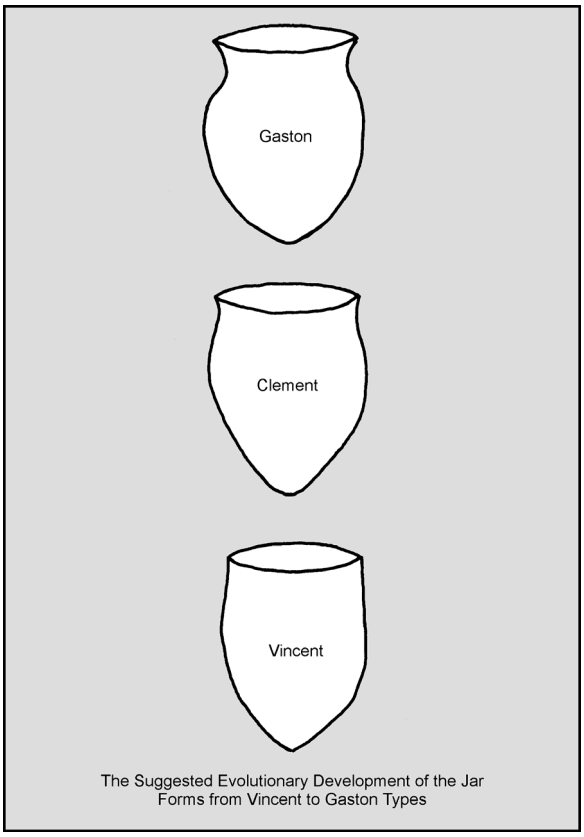


Figure 5 (top left). Sketches of rim profiles of Clement Cord-marked sherds. Interior to right.
Figure 6 (bottom left). Sketches of rim profiles of Clement Fabric Impressed sherds. Interior to right.
Figure 7 (right). The suggested evolutionary development of the jar forms from Vincent to Gaston types.

Surface Finish

Exterior: Impressed with a plaited fabric with a medium-close warp, 3–4 mm apart, and a very close weft, 1 mm apart. Most impressions are clearly defined. The warp seems to be of a rigid nature, and the weft is a loosely twisted cord.

Interior: Smoothed with the hand, with swipings visible on some sherds. Slight scraping is present on a few sherds, and the interior is generally somewhat smoother than on Clement Cord-marked sherds.

Decoration

Lip: Majority have impressions of the paddle around the lip, but some are rounded and finger-smoothed. The paddle impressions around the lip are sometimes 3 mm deep, showing clearly the fabric or cord as it crossed the edge of the paddle. A few sherds are impressed on the lip with the flat side rather than the edge of the paddle.

Neck: None

Rim: Interiors of some rims are paddled with edge of the fabric-wrapped paddle, forming a row of indentions vertical or diagonal to the rim.

Form

Rim: Straight to slightly flaring.

Lip: Rounded with some flattening due to paddling of lip with the side or edge of the paddle.

Body: Large globular jars with oral diameter of 27 cm.

Base: Conoidal to rounded.

Thickness: 4–7 mm, average 5 mm. Bases 6–10 mm thick.

Appendages: None.

Probable Relationships of the Clement Series

Typologically, the Clement series is similar to what Clifford Evans has called the Stony Creek series.[11] However, examination of sherds from a site in North Carolina, said by Evans to be 94.5 percent Stony Creek series pottery, indicated that some sherds evidently included in the series are widely separated typologically, and some types now included will, upon closer examination, need to be separated into more refined classifications. For this reason, the type name, Stony Creek, was not given to the Clement pottery, since Clement, Vincent, and Gaston type pottery types are all included by Evans in the Stony Creek series.[12]

The Clement series also bears some resemblance to what Coe has called the Roanoke series. This series precedes the Clarksville pottery which is the Saponi pottery of the 1625–1675 period.[13] Further comparisons await more research in related areas, but it can be said that the Clement series represents a development out of the Vincent series, and was replaced by the Gaston series during early historic times (Figure 7).

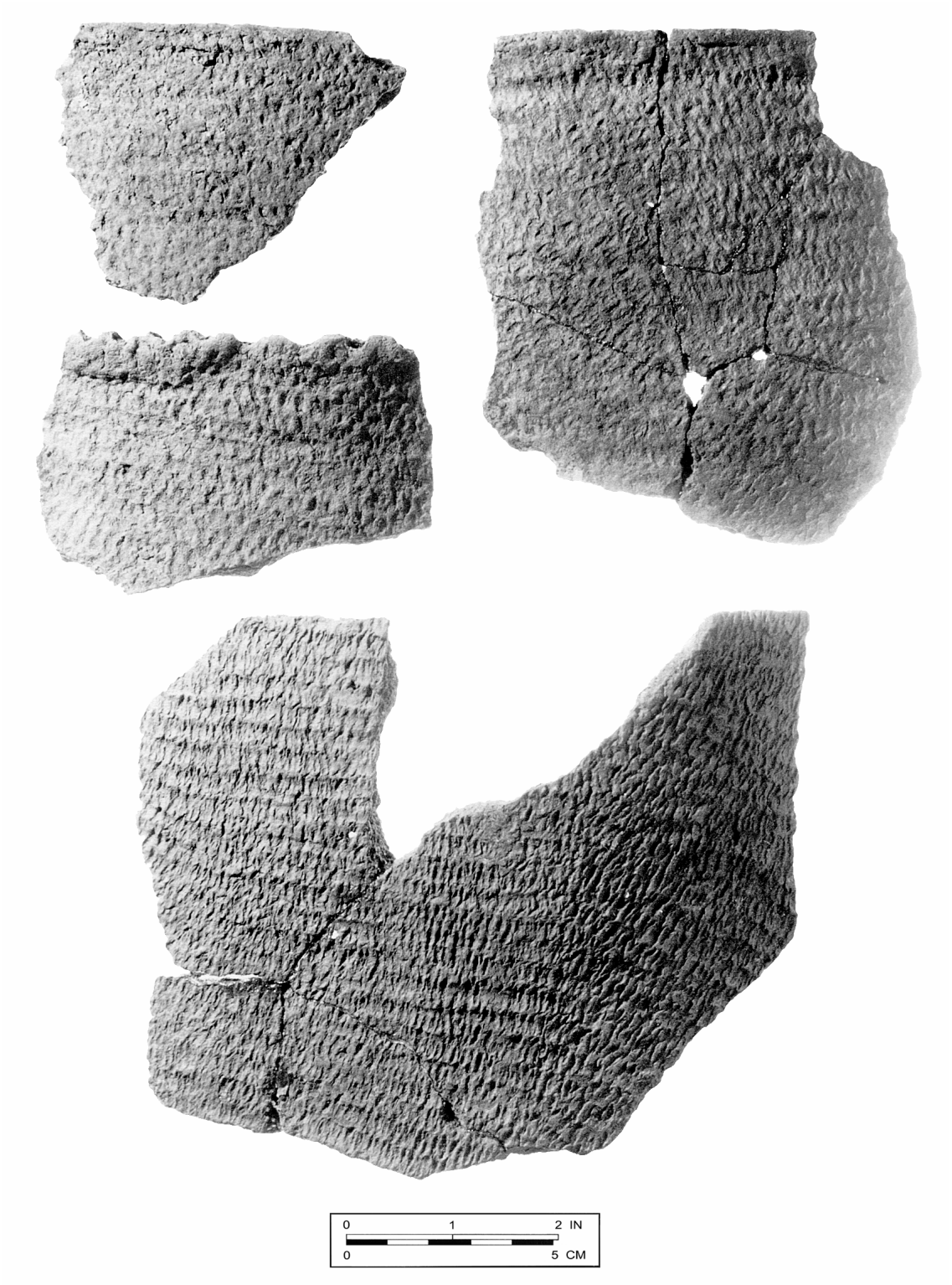


Plate 9. Clement Fabric Impressed rim sherds.

Plate 10. Large fragment of Clement Fabric Impressed pottery. Excavated from Feature 199 (illustrated in Plate 44a). Notice the drilled holes used for repairing the crack in the vessel before it was discarded.

Vincent Cord-marked (Plate 11, Figure 8)

Paste

Method of Manufacture: The body is built of annular segments. The fractures are usually along the coils, giving the impression of rim sherds to many body sherds.

Temper: Fine sand with occasional crushed quartz. Many sherds have such compact paste that the temper is not evident except upon close examination.

Texture: Fine, smooth texture, hard, compact paste.

Hardness: 2 ½ to 3 ½.

Color: Red-orange to tan.

Surface Finish

Exterior: Impressed with a cord-wrapped paddle. The cord impression is usually clear and distinct. It has a Z twist that is usually hard. The parallel rows of cord markings form a right angle or slight diagonal to the rim. There is some cross stamping, but usually no more than at a slight angle from parallel.

Interior: Hand smoothed with hand swipings visible on most sherds.

Decoration

Lip: Most lips have been paddled with the flat side of the paddle, producing cord impressions at a right angle to the lip. Some, however, are finger-smoothed.

Neck: None.

Interior: Frequent cord impressions around inside of the rim, at a diagonal angle extending down for 2 cm from the lip.

Form

Rim: Straight.

Lip: Most are flat as a result of paddling, but a few are rounded.

Body: Straight-sided, large jars. One miniature form was found with a round bottom and was only three inches high (Plate 7). The paste and temper characteristics are typical of the Vincent series, although the cord impressions are not.

Base: Conical to slightly rounded. Rounded base on the one miniature vessel recovered.

Thickness: 5–9 mm.

Appendages: None.

Vincent Fabric Impressed (Plates 12–14, Figure 8)

Paste

Method of Manufacture: Built of annular segments with fracture usually along the coils.

Temper: Fine sand with occasional large crushed quartz fragments. Some rounded river pebbles in a minority of the sherds.

Texture: Same as Vincent Cord-marked.

Hardness: 2 ½ to 3 ½.

Color: Orange-tan to gray.

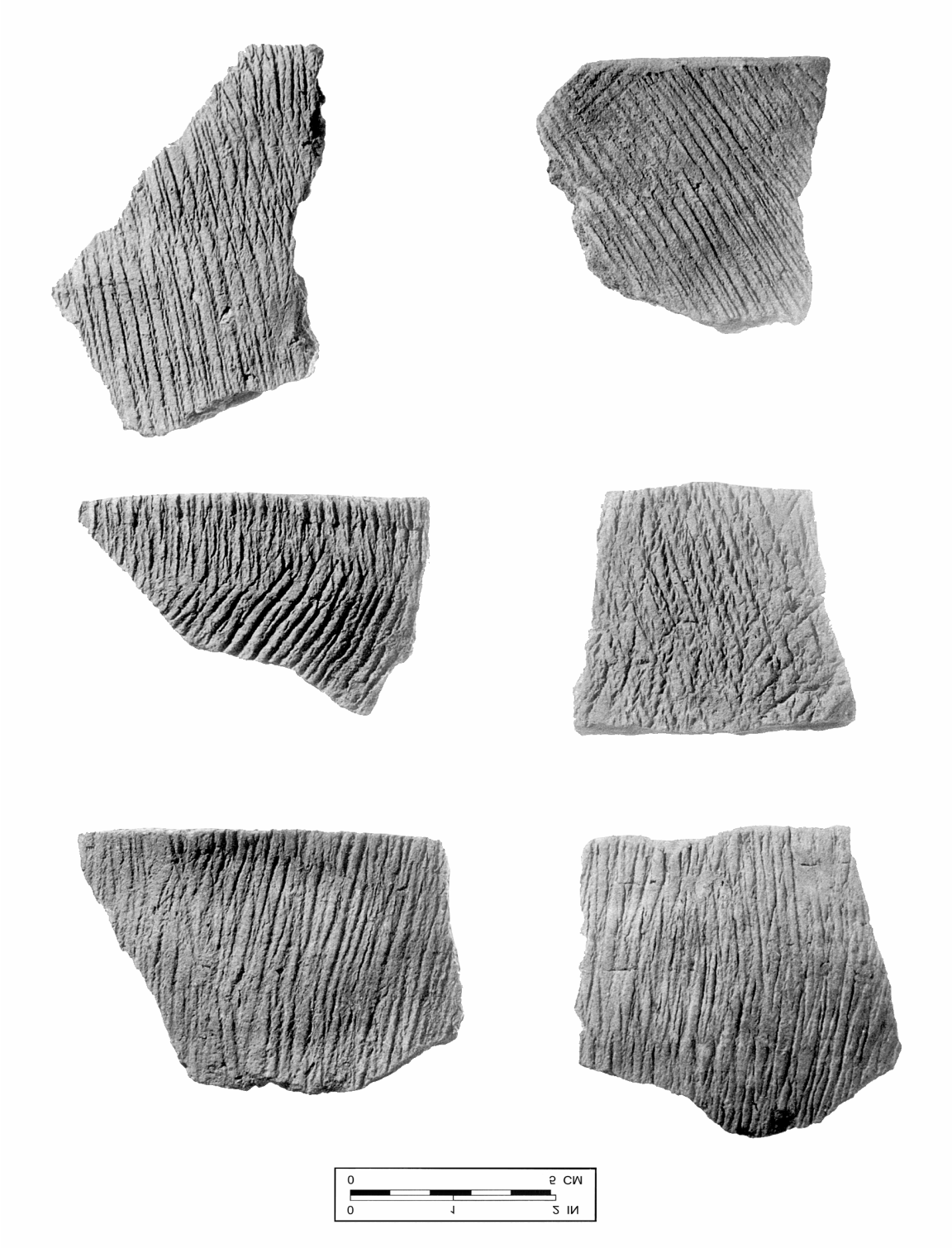


Plate 11. Vincent Cord-marked rim sherds.

Surface Finish

Exterior: Impressed with a fabric-wrapped paddle with usually distinct impressions of the fabric. The fabric is plaited or basketry that has a fine close weft and a wide coarse warp. Weft is 1–2 mm, and warp from 3–11 mm in width.

Interior: Hand smoothed with swipings showing on many sherds.

Decoration

Lip: Finger smoothed or paddled with fabric-wrapped paddle.

Neck: None.

Rim Interior: Paddled with the edge of the fabric-wrapped paddle for a distance of 2–3 cm from the lip on some sherds.

Form

Rim: Straight to occasionally slightly flaring.

Lip: Rounded or flattened by the paddle.

Body: Straight-sided jars with oral diameter of 25–40 cm. One miniature form three inches high is shaped with a spout as though in imitation of a shell cup. This specimen has a flat base (Plate 14).

Base: Conical to rounded, with one miniature form having a flat base.

Thickness: 7–11 mm.

Appendages: None.

Probable Relationships of the Vincent Series

The Vincent series, with the Clement series, are both probably included in what Evans has called Stony Creek. A definite typological comparison with pottery from adjacent areas is difficult since the type as such has not been described.

However, there is some typological comparison to the Prince George series of Evans, but this cannot be carried very far beyond general appearance and paste characteristics.[14] The Vincent series represents the first pottery types to be made in the Roanoke Rapids basin, and was replaced in popularity at a later time by the Clement series. These two series are difficult at times to distinguish one from the other since the temper characteristics are the primary criteria for separation. They represent the major pottery types in the basin and, since they are present on almost every site, the indication is that they represent a long occupation period within the area. I think the time the Vincent and Clement series were at their height of popularity would be between AD 500 and 1500, when the Gaston pottery became popular.[15]

Type I Cord-marked (Plate 15, Figure 9)

Paste

Method of Manufacture: The body is built of annular segments, with well blended paste.

Temper: Fine, smooth, usually compact clay and temper mixture. When mica is present in the clay, the mixture is more porous.

Hardness: 3 to 3 ½.

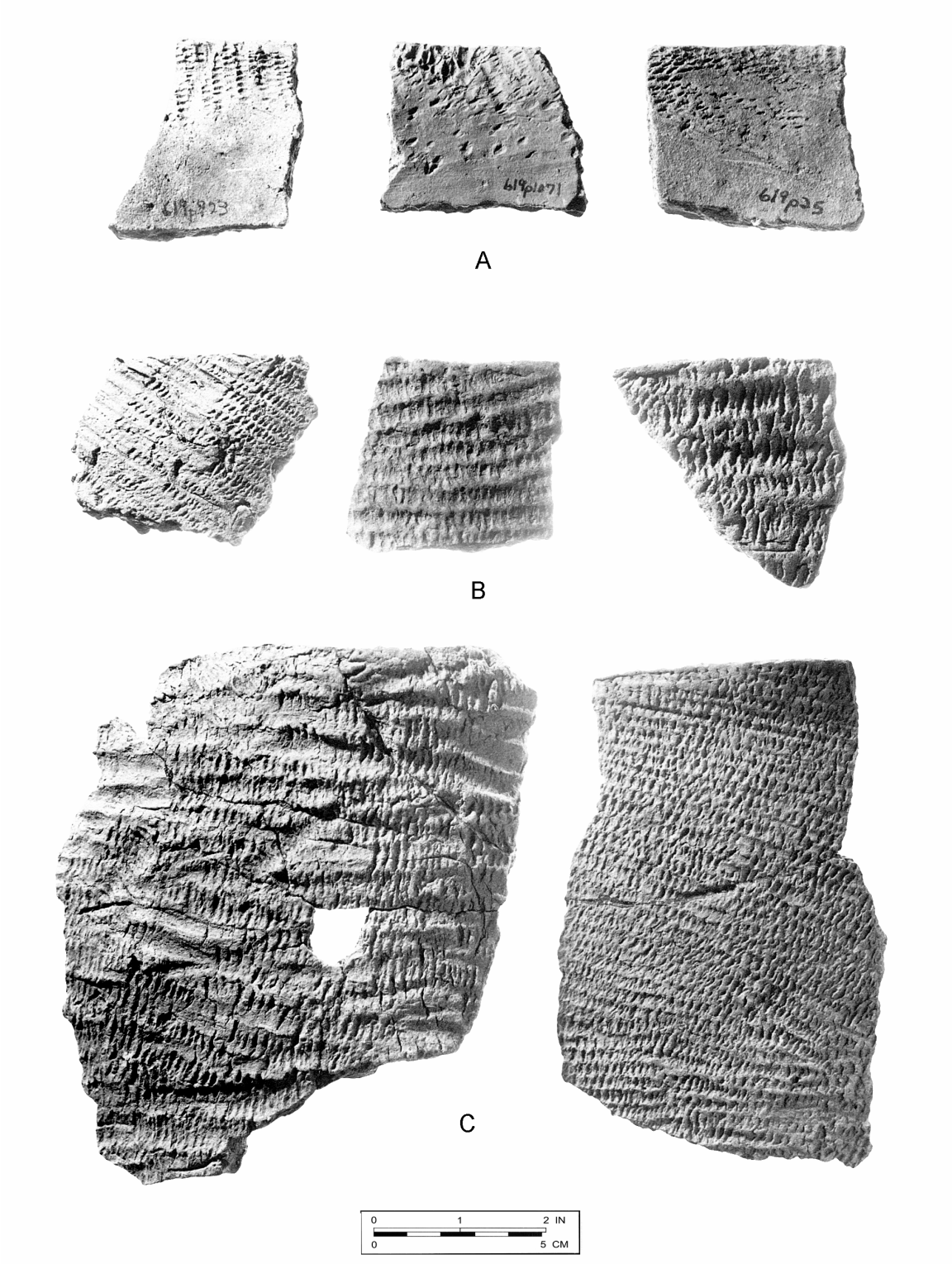


Plate 12. Vincent Fabric Impressed rim sherds. A: Interior showing paddle impressions on the interior of the rim. B and C: Exterior showing characteristic fabric impressions.

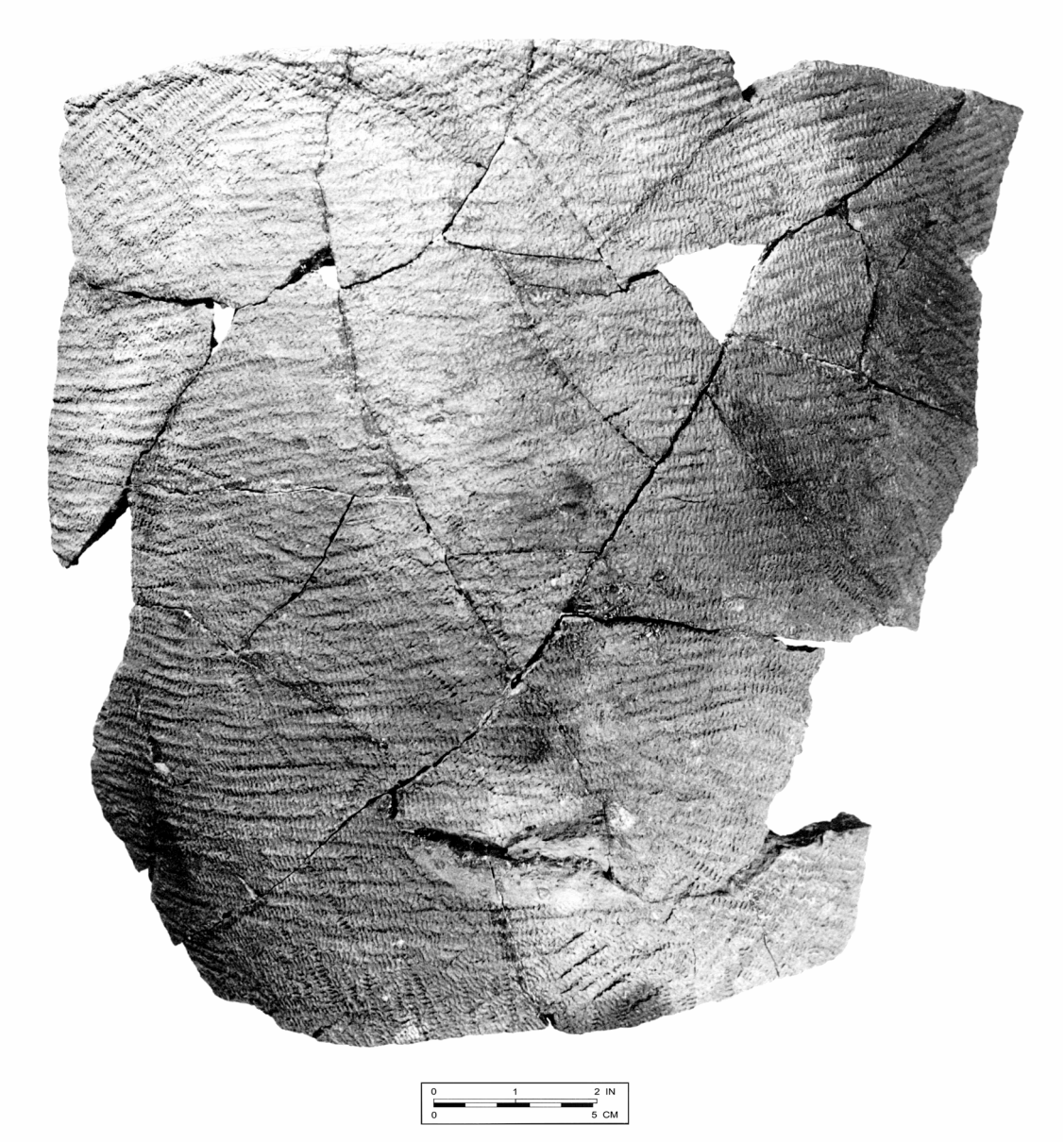


Plate 13. Large sherd of Vincent Fabric Impressed pottery found with flexed Burial 1 at the Thelma site.

Color: Gray to black, with some orange-tan. Interiors usually black to dark gray.

Surface Finish

Exterior: Impressed with a cord-wrapped paddle. The cord has a soft to medium-soft Z twist, 1.5–3 mm in width. The parallel rows of cord markings are almost vertical to the rim. There is little over-stamping or cross-stamping of the cord.

Interior: Tooled, varying from scraped with a serrated object to semi-burnished with a polished stone or wooden tool. A few sherds have hand-smoothed interiors.

Plate 14. Miniature vessel of Vincent Fabric Impressed pottery. A: Side view, possibly an imitation of a shell drinking cup. Catalog no. 620p28, site $Hx^{V}8$, square 0, 6–12" level. B: Top view of the same pot.

Decoration

Lip: Smoothed with fingers with occasional notches made with the edge of a square-cornered paddle.

Neck: Cord is occasionally smeared with diagonal finger streaks as decoration on the neck of the vessel.

Form

Rim: Straight to flaring, with an occasional folded rim.

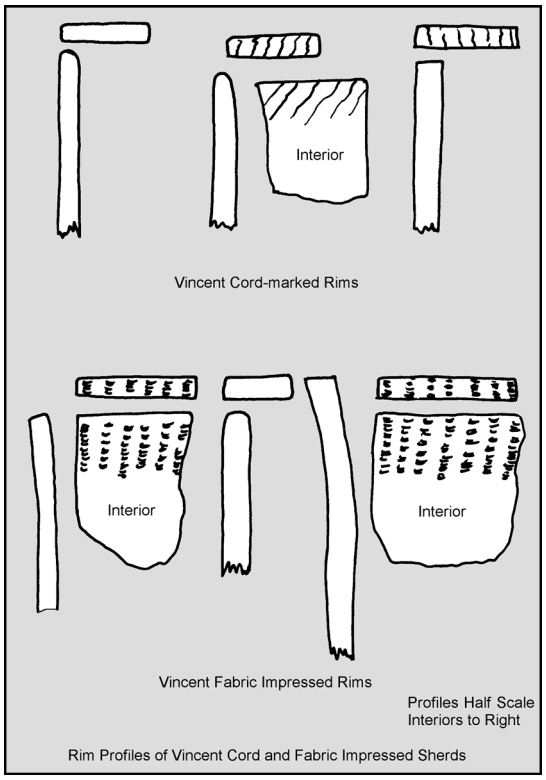
Lip: Rounded, but a few have notches around lip.

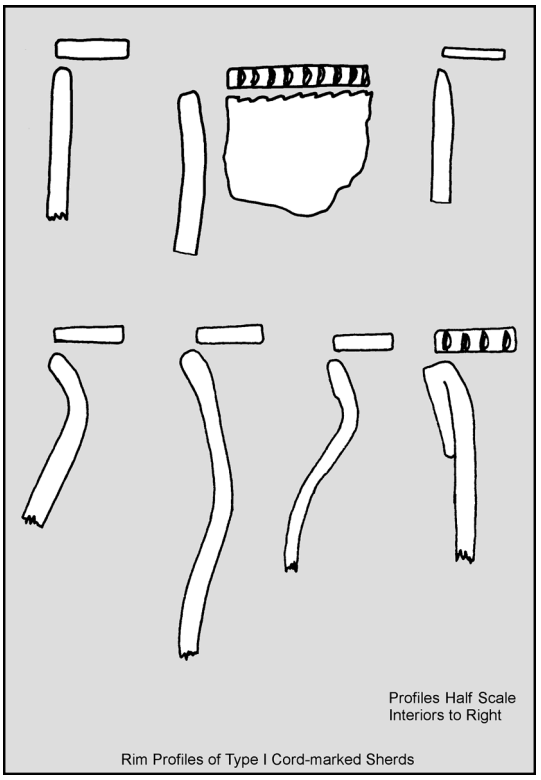
Body: Globular jars, with miniature forms. Oral diameter 9–19 cm. On basis of available sherds.

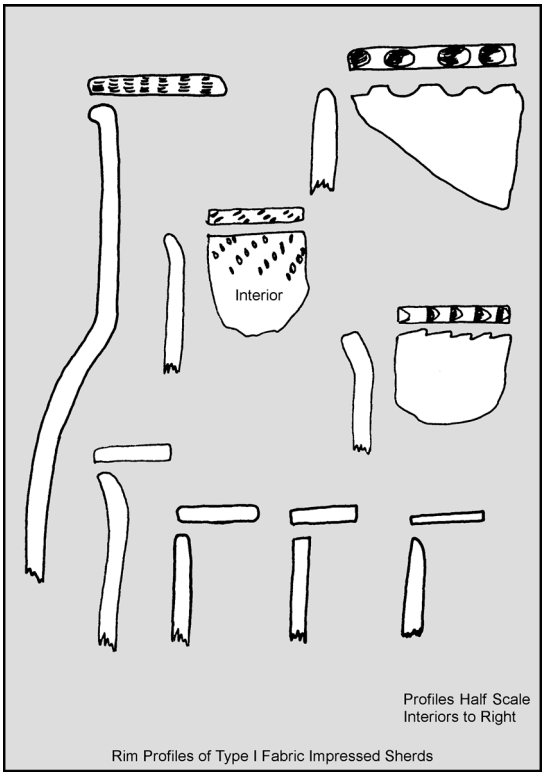
Base: Insufficient evidence.

Thickness: 5–10 mm with miniature forms 3 mm.

Appendages: None.







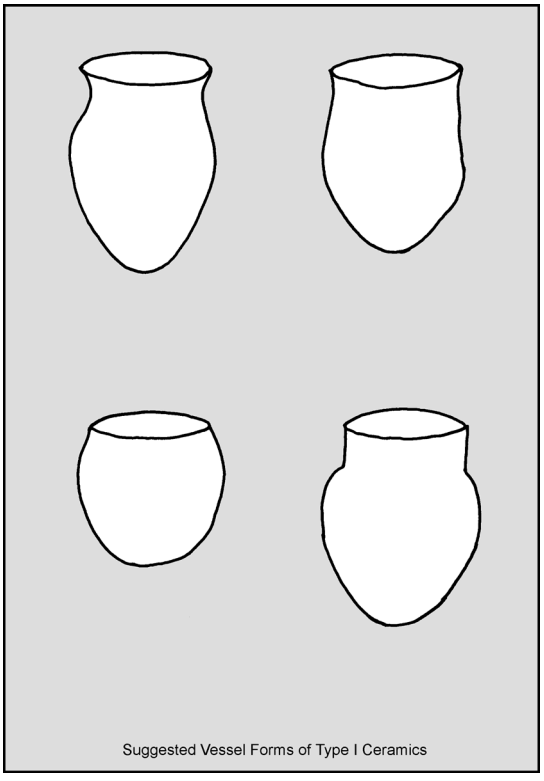


Figure 8 (top left). Sketches of rim profiles of Vincent Cord and Fabric Impressed sherds.
Figure 9 (top right). Sketches of rim profiles of Type I Cord-marked sherds.
Figure 10 (bottom left). Sketches of rim profiles of Type I Fabric Impressed sherds.
Figure 11 (bottom right). Suggested vessel forms of Type I pottery.

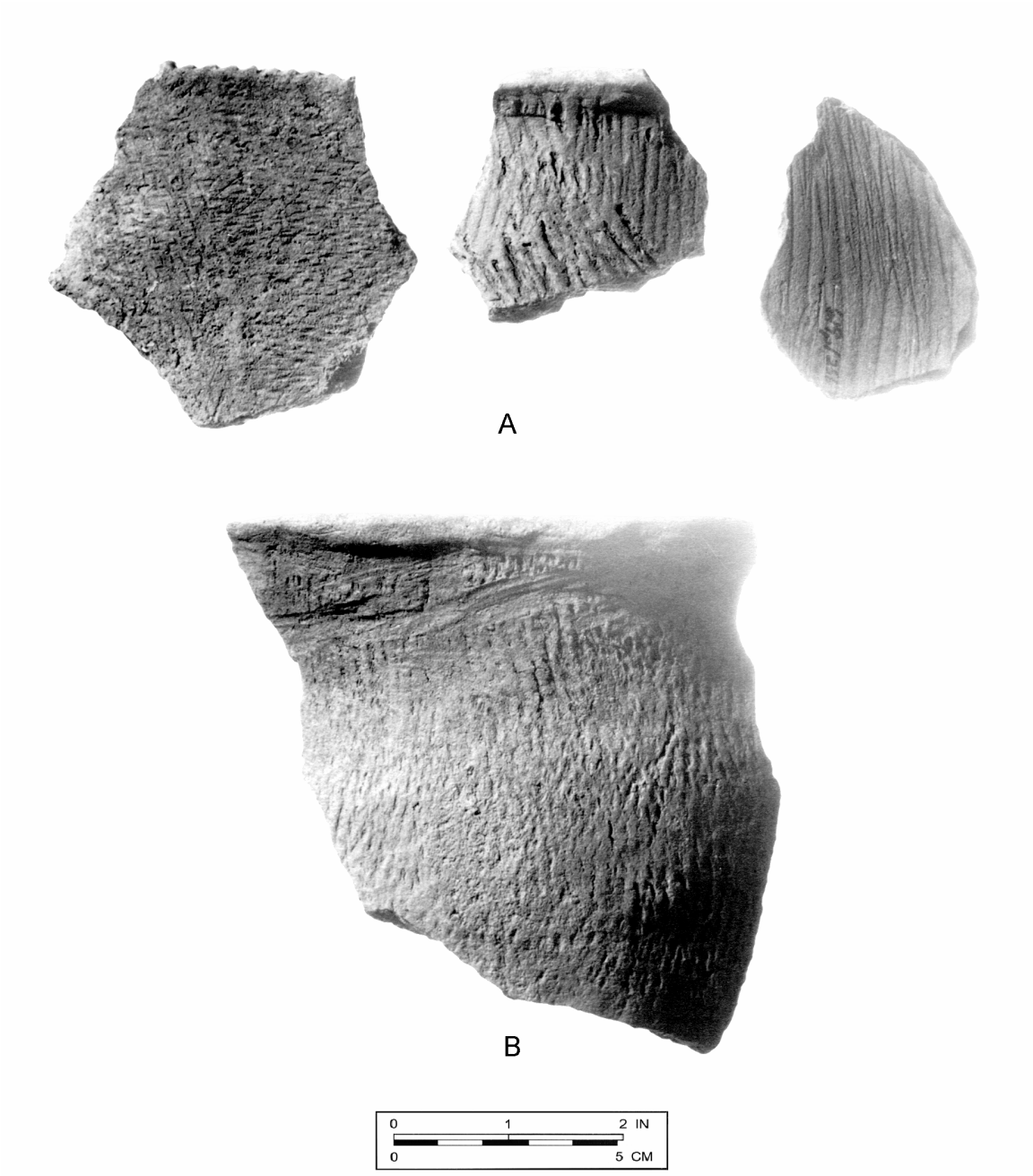


Plate 15. Type I Cord-marked sherds showing the cord impressions and the appearance typical of Clarksville Cord-marked sherds. This type is included in the Gaston Series. Top row right: Interior of Type I Cord-marked sherd showing scraping.

Type I Fabric Impressed (Plate 16, Figure 10)

Paste

Method of Manufacture: Same as Type I Cord-marked.
Temper: Same as Type I Cord-marked.
Texture: Same as Type I Cord-marked.
Hardness: 3 to 3 ½.
Color: More gray and orange-gray than Type I Cord-marked.

Surface Finish

Exterior: Impressed with a medium-sized plaited fabric with a soft twist and close weft. The warp is from 3–5 mm apart, and the weft is 1–2 mm apart.
Interior: Tooled, varying from scraped with a serrated object to semi-burnished with polished stone, bone, or wooden tool. The tooling of the interior is a significant criterion for Type I Cord-marked and Fabric Impressed sherds.

Decoration

Lip: Finger smoothed or notched with the edge of a square-cornered paddle, rounded edge of paddle, or the edge of the fabric-wrapped paddle.
Neck: Occasional finger smears on area near neck of the vessel.
Rim: Interior occasionally paddled with clear impressions of the edge of the fabric-wrapped paddle.

Form

Rim: Mostly straight, with some slightly flaring.
Lip: Rounded, except when notched or paddled.
Body: Globular jars, some with straight necks.
Base: Rounded.
Thickness: 4–6 mm. Average 5 mm.
Appendages: None.

Probable Relationship of Type I Cord and Fabric Impressed

There is a similarity between the Type I material and the Clarksville series.[16] With the limited number of sherds of this type present, however, nothing significant can be demonstrated. These types probably represent the Clarksville influence among the potters of the eastern Roanoke basin. They fall chronologically and typologically within the Gaston series.

Type II Cord-marked (Plate 17, Figure 12)

Paste

Method of Manufacture: The body is composed of annular segments, well blended. The fractures do not occur along the coils.
Temper: High percentage of fine crushed quartz and sand, with an occasional large fragment of crushed quartz. A high percentage of golden mica particles in the paste gives a sparkling appearance to many of the sherds. This mica content is an important diagnostic feature of this type.
Texture: Smooth to gritty-feeling sherds. The sherds tend to crumble when a small amount of pressure is applied to the edges.
Hardness: 2 ½ to 3.

Plate 16. Type I Fabric Impressed sherds. Lower right: Interior of rim sherd showing scraping. This type is included in the Gaston series.

Color: Orange-tan to dark gray.

Surface Finish

Exterior: Impressed with a cord-wrapped paddle. The cord has a fine S twist, 1 mm to 2 mm in width. The parallel rows of cord marks are vertical or slightly diagonal to the rim. The width of the paddle on some sherds was from 4 cm to 5 cm.

Interior: Tooled, usually smooth, but some are hand smoothed.

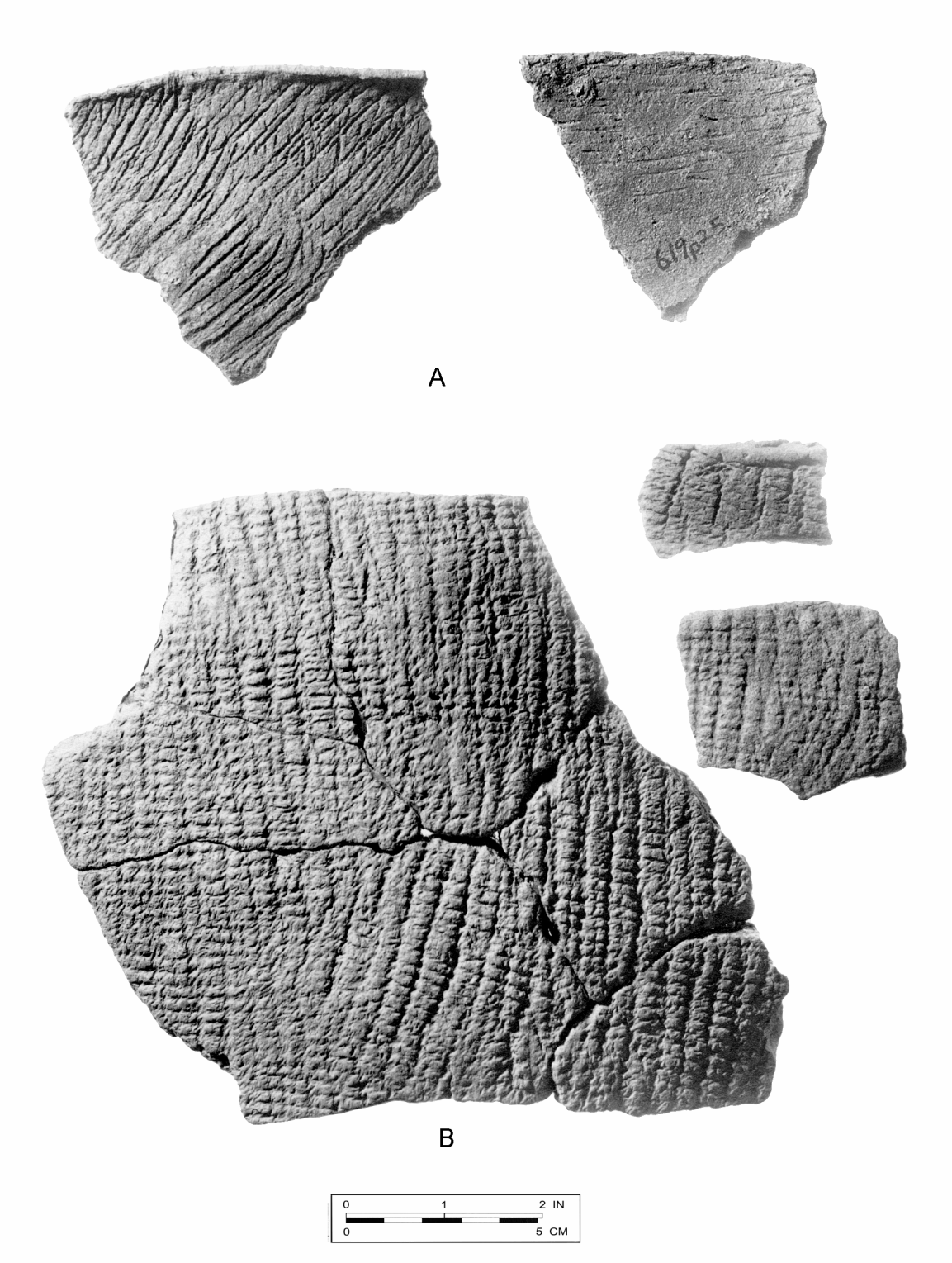


Plate 17. Type II Cord-marked and Net I type sherds. A, left: Type II Cord-marked rim sherd. A, right: Interior of Type II Cord-marked rim sherd. B: Net Impressed I type sherds.

Decoration

Lip: Smoothed with fingers, but a few are finger smoothed.

Rim: Interior sometimes paddled with side of paddle.

Form

Rim: Most are slightly flaring, but a few are straight.

Lip: Rounded, but a few are flattened with edge of paddle.

Body: Large globular jars.

Base: Insufficient evidence, probably rounded.

Thickness: 4–6 mm. As thick as 15 mm near base of some.

Appendages: None.

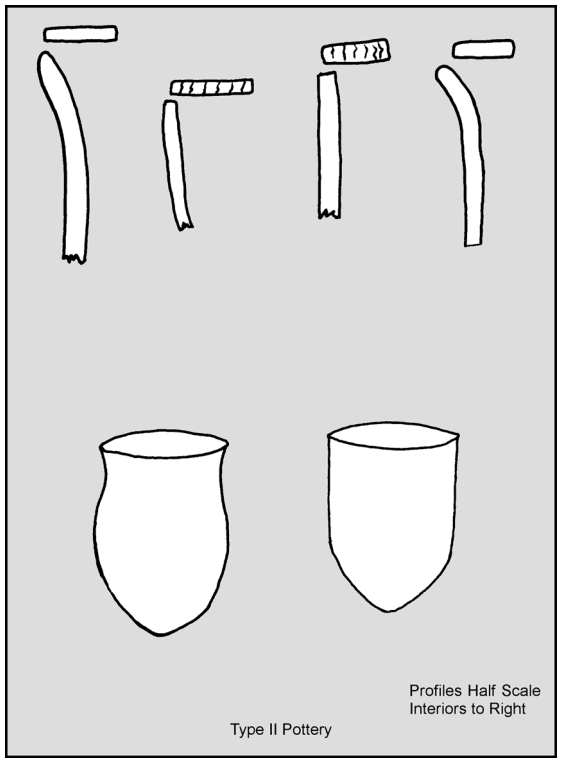


Figure 12. Rim profiles and suggested vessel forms for Type II pottery.

Type II Fabric Impressed (Figure 12)

Paste

Method of Manufacture: Same as Type II Cord-marked.

Temper: Same as Type II Cord-marked.

Texture: Same as Type II Cord-marked.

Hardness: 2 ½ to 3.

Color: Same as Type II Cord-marked.

Surface Finish

Exterior: Impressed with a closely-woven fabric-wrapped paddle. The warp is 2–3 mm in width, and the weave is 1–2 mm in width.

Interior: Same as Type II Cord-marked.

Decoration (Insufficient evidence)

Form (Insufficient evidence)

Probable Relationship of Type II Cord and Fabric Impressed Pottery

These types are included in what Joffre Coe has called the Roanoke series; however, the limiting of this type to sherds with a high mica content makes it a more limited type than Coe's Roanoke material.[17] This Type II material is associated with the Clement series and probably represents a pottery influence from the Clarksville, Virginia, area toward the end of the popularity of the Clement type and during the early Gaston period.

Net Impressed I (Open, woven, net-like fabric) (Plate 17, Figure 13)

Paste

Method of Manufacture: Body built of annular segments.

Texture: Porous, crumbly, easily broken, gritty to the feel, erode easily.

Hardness: Soft, 2 to 2 ½.
Color: Most are orange to orange-gray.

Surface Finish

Exterior: Impressed with an open, woven, net-like fabric wrapped around a paddle. Warp and weft cord of medium twist, with distance between the cords of 5–10 mm, and between the weft cords of 2–3 mm. This wide spacing between the warp cords was the main criterion for this distinctive net-fabric type.
Interior: Finished with hand swipings.

Decoration

Lip: The lip was almost always finished with paddlings of the net-wrapped paddle. Finger smoothing, finger pinching, and fingernail punctations around the lip are also present on many sherds.
Neck: None.

Form

Rim: Straight.
Lip: Rounded to flattened.
Body: Straight-sided jars.
Base: Insufficient evidence.
Thickness: 6–11 mm.
Appendages: None.

Net Impressed II (Plate 18, Figure 14)

Paste

Method of Manufacture: Same as Net Impressed I. Coil fractures are clean and appear on large number of sherds.
Temper: Fine to medium sand, varying from small to large amounts in relation to the clay.
Texture: Smoother than Net Impressed I sherds, though some have a gritty feel.
Hardness: Harder, as a rule, than Net Impressed I, though some are soft as 2. Most are 2 ½ to 3.
Color: Orange to gray.

Surface Finish

Exterior: Impressed with a paddle wrapped with knotted net with distance between mesh of 3–10 mm. A small amount of looped net is also included in this type.
Interior: Usually hand smoothed, and a few have net impressions inside the rim.

Decoration

Lip: All lips are impressed with the net impression except a very few that are hand smoothed. There is an occasional punctated lip.
Neck: None.
Rim: None as a rule; however, one rim had incising of two parallel lines 5 mm apart, 8 mm below the lip, and on the interior there was an incised line 1 mm deep at 1 cm below the lip (see Figure 14).

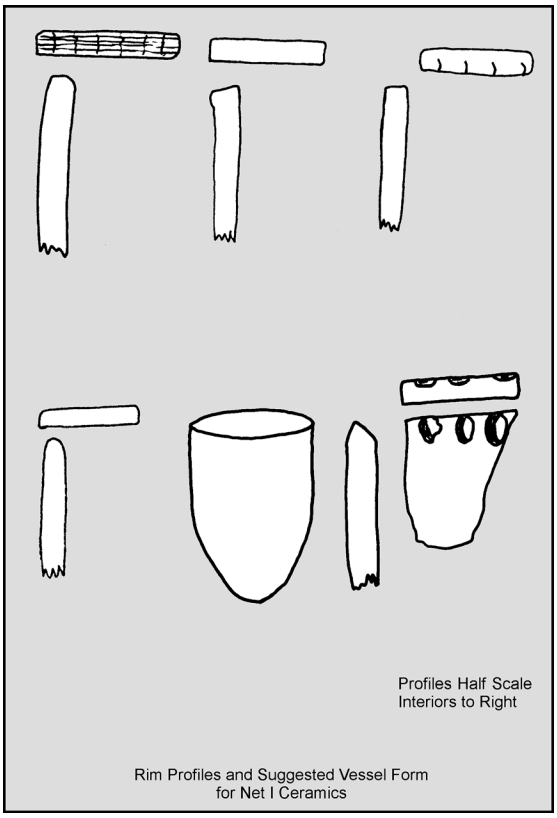


Figure 13. Sketches of rim profiles and suggested vessel form for Net Impressed I pottery.

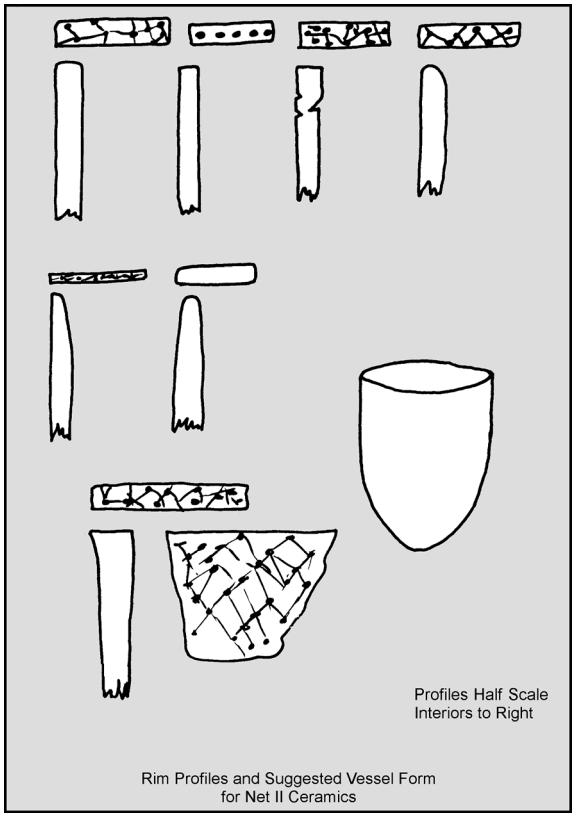


Figure 14. Sketches of rim profiles and vessel form for Net Impressed II pottery.

Form

Rim: Straight.
Lip: Rounded to flattened.
Body: Straight-sided jars.
Base: Insufficient evidence, probably rounded.
Thickness: 7–10 mm.
Appendages: None.

Probable Relationships of the Net Impressed Types

Due to the fairly small sample of the net types, their chronological and areal position is not as clear as could be desired. However, the association of net impressed sherds in pits with a high percentage of Clement series sherds indicates that net impressed pottery probably reached its peak of popularity along with the Clement series pottery. It was never a major pottery type in the basin. Further research will no doubt refine the net impressed pottery described here into several different types, but on the basis of the evidence found during this survey, a more refined picture could not be produced. However, charcoal from two features at the Gaston site was analyzed for a radiocarbon date, and the results are discussed in the section of this report on radiocarbon dates.

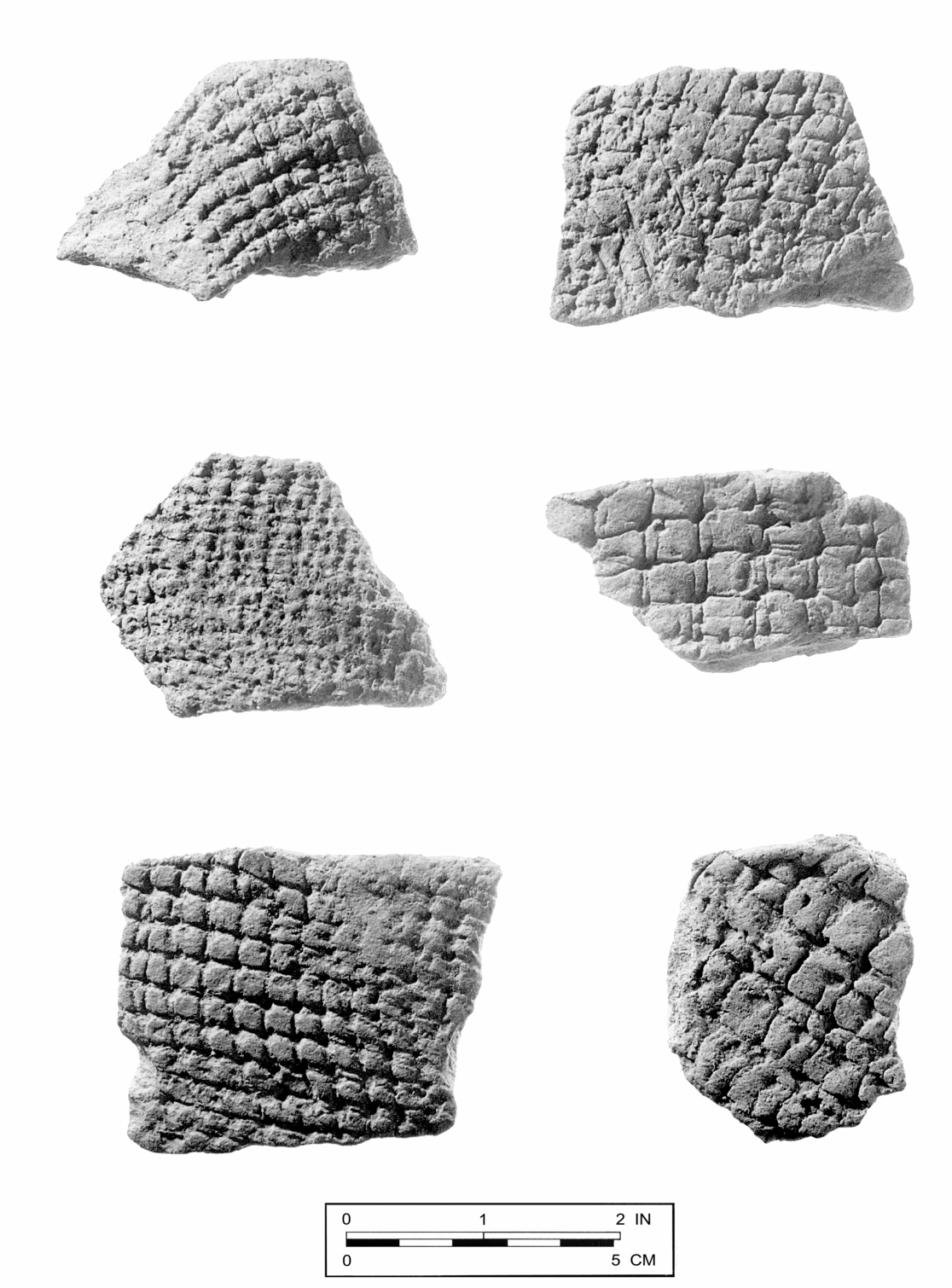


Plate 18. Net Impressed Type II rim sherds.

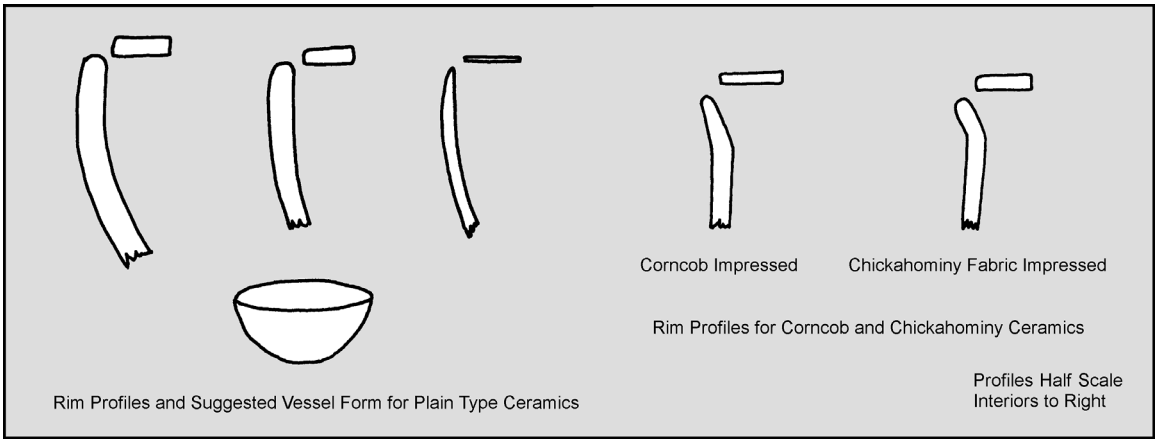


Figure 15. Rim profiles and suggested vessel form for the Plain type pottery (left); and rim profiles for Corncob Impressed and Chickahominy Fabric Impressed sherds (right).

Plain (Plate 19a, Figure 15)

Paste

Method of Manufacture: Annular segments throughout the body.
Temper: Fine particles of sand with occasional large fragments of crushed quartz.
Texture: Smooth, compact.
Hardness: 2 ½ to 3.
Color: Gray to reddish tan.

Surface Finish

Exterior: Hand smoothed.
Interior: Hand smoothed.

Decoration

Lip: None.
Neck: None.

Form

Rim: Straight.
Lip: Rounded or thinned.
Body: Bowls.
Base: Insufficient evidence, probably round.
Thickness: 3–9 mm.
Appendages: None.

Corncob Impressed (Plate 19b, Figure 15)

Paste

Method of Manufacture: Well-blended annular segments. Fractures usually not along the coil.
Temper: Very fine sand is visible in some sherds, but most appear not to have been tempered.
Texture: Smooth, very compact sherds.

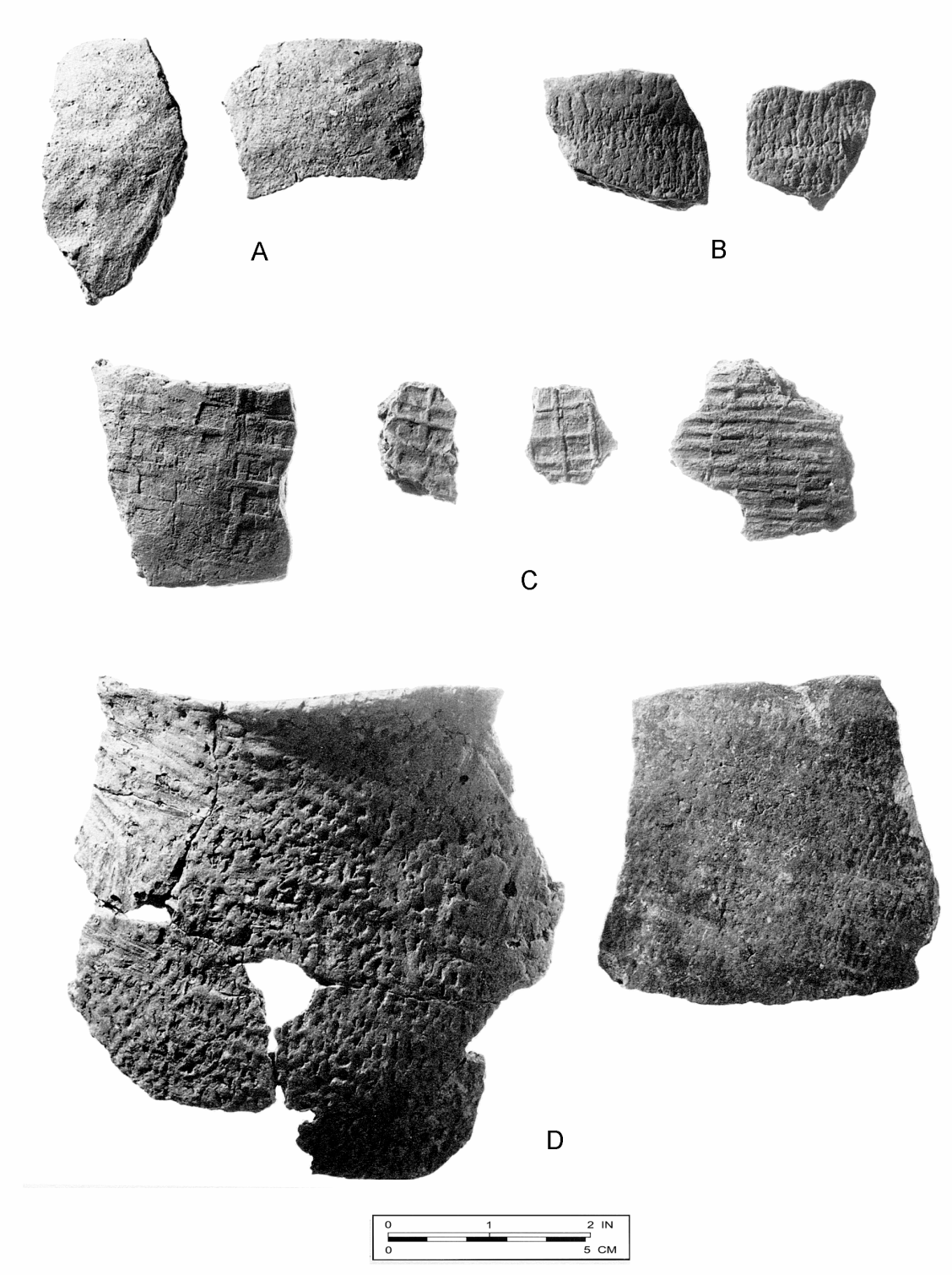


Plate 19. A: Sherds of the Plain type. B: Corncob Impressed sherds. C: Check Stamped sherds. D: Chickahominy Fabric Impressed sherds.

Hardness: 3 to 3 ½.
Color: Tan to gray.

Surface Finish
Exterior: Impressed with a corncob rolled over the surface.
Interior: Tooled with a smooth object.

Decoration
Lip: Smoothed with fingers.
Neck: None.

Form
Rim: Slightly flaring.
Lip: Rounded and thinned.
Body: Insufficient evidence.
Base: Insufficient evidence.
Thickness: 4–6 mm.
Appendages: None.

Check Stamped (Plate 19c)

Paste
Method of Manufacture: No coil fractures visible.
Temper: High percentage of medium to large crushed quartz, 2–5 mm.
Texture: Smooth, compact.
Hardness: Hard, 3 to 3 ½.
Color: Gray to orange-gray.

Surface Finish
Exterior: Paddled with a carved paddle with a check design. The raised lands intersect to form rectangles or squares. The checks vary in size from 5–8 mm, and the lands vary from 1–3 mm in width.
Interior: Hand smoothed.

Decoration (Insufficient evidence)

Form (Insufficient evidence)
Thickness: 4–7 mm.
Appendages: None.

Probable Relationships of Plain, Corncob Impressed, and Check Stamped Types

Because of the meager amount of information available on these types, they are lumped together in this section. The Plain type appears to be related to the Gaston material typologically, however, it was found on a large number of sites and in pits not associated with Gaston sherds. The Corncob Impressed type appeared in very small amounts and is thought to appear at the Historic time period.[18] This is strengthened by the fact that typologically it is related to the Gaston type.

The Check Stamped sherds were found in very small amounts in the survey. The Hillsboro focus contained check-stamped material in some quantity, and the check-stamped sherds from the Roanoke basin may be contemporary with the

Hillsboro occupation by the Occaneechee during l700–l725.[19] They definitely are associated with the Gaston type pottery and would be included in the Gaston series.

Chickahominy Fabric Impressed (Plate 19d, Figure 15)

Two features (Features 38 and 158) at the Gaston site contained fabric-impressed, shell-tempered sherds, the only place the type was found in the basin. The name Chickahominy Fabric Impressed was assigned to this type since Clifford Evans had described such a type for the Coastal Virginia area.[20] The type described by Evans will not be repeated here, because basically the shell-tempered sherds found at the Gaston site are the same type as Type I Fabric Impressed, described earlier in this report, the only difference being the shell tempering. These sherds appear to be associated with the Clement and Type I Fabric Impressed types. Type I Fabric Impressed and the sherds called Chickahominy Fabric Impressed are typologically related to the Clarksville pottery.

From this information, plus the fact that shell-tempered pottery appears as the latest pottery type in the coastal area, it appears that the shell-tempered sherds found at the Gaston site are a result of pottery influences from the piedmont Siouan area and also from the coastal Algonquian area, probably during the early historic time period. It is interesting to note (see Figure 37), however, that no Gaston pottery was found in these two pits containing shell-tempered sherds.

Hatteras Simple Stamped

This name was given to one simple-stamped, shell-tempered sherd found on the surface at site $Np^{v}46$ (see Figure 16). The type was originally described by Margaret C. Blaker and called by her Roanoke Simple Stamped.[22] Later, Evans included the type in his Chickahominy series.[23] The name Hatteras Simple Stamped is suggested for this type to avoid a mistaken association with the Roanoke River pottery. The Hatteras and outer banks coastal area in North Carolina and Virginia appears to be the area of concentration for this type.[24] Therefore, it is felt that the Hatteras name for the type is more appropriate than Roanoke.

Few profound conclusions can be made on the basis of one sherd; however, it should probably be equated with the same time period as the Gaston pottery and no doubt represents influence of some small degree from the coastal Algonquin area.

The Method of Establishing the Projectile Point and Blade Types

The method used to establish the projectile point and blade types was much the same as that used to establish the pottery types. The site with a wide variety of projectile point shapes and sizes was examined and the projectile points and blades placed into groups according to their observable physical characteristics. These separate groups or tentative types were assigned a letter and referred to by this letter on the analysis cards. Later, when the analysis was complete, certain types that could be recognized were given the names by which they are already known. The types whose stratigraphic relationship was established in this survey were assigned names relating to the locality in which they were found. Types whose stratigraphic and cultural association was not conclusive enough to

warrant giving them a type name were called by their descriptive name. Large Triangle and Crude Triangle types are examples. Large Oval Blade and Small Oval Blade are exceptions to this rule because of their stratigraphic association with named projectile point types; however, their descriptive name was retained. The Large Oval Blade type could be called Savannah River Oval Blade, and the Small Oval Blade could be called the Halifax Oval Blade because of their association with these projectile points.

In typing the projectile points and blades, the shape was the primary criterion used, with size being considered where the range was wide enough to indicate that it may be an important variable. The triangle type points were so typed. There was a small equilateral triangle that was kept as a type, larger and more isosceles triangles were kept as another type, and the largest triangles as another. Crude, thick triangles were kept as a separate type, but their cultural significance is not evident, except that they probably are points whose material caused them to fail to chip properly during the manufacture of one of the triangle types.

There is a small stemmed point that was associated with the Vincent series pottery at the Thelma site, and it is referred to in this study as Thelma Small Stemmed. This is the only stemmed projectile point that is associated with pottery in this survey, all other pottery-associated points being triangular. All stemmed projectile points, other than the small Thelma type, are without a doubt from a pre-pottery culture period.

The pre-pottery stemmed type varied considerably in size and was originally separated into two groups. These are referred to in this report as Large Savannah River and Small Savannah River types, but in some charts and tables where they occurred stratigraphically together, they are referred to as the Savannah River type.[25]

Other types described are: a side-notched point that occurred stratigraphically below the Savannah River types and called the Halifax point; and a long, thick, stemless point found stratigraphically below the Halifax and Savannah River types and called the Guilford point. Types not fitting one of these categories were placed in the type "Other."

These types constitute the major projectile point types in the present survey. The material used in the manufacture of the points was noted on the analysis cards. These materials are: slate, quartzite, white quartz, crystal quartz, felsite, and diorite. Only two points were found that were made of chert. Both were triangular in type, but one was typed as "Other" because of its extremely concave base (Plate 25a). Tables showing the projectile point types, and the relationship to the material used, are seen in Tables VI and XII and Figure 40.

In the pre-pottery levels at the Gaston site, all chips were kept, and a count of these was made according to material. A table showing the relationship between the chip material and the material used in the points found in the pre-pottery levels is shown in Figure 40. A more detailed discussion of these tables occurs elsewhere in this study.

The projectile point analysis was kept on the back of the pottery analysis cards in order to facilitate comparison with the pottery. After all sites, features, and levels had been examined for projectile point types, the information was compiled into percentage relationships. The results of the count and the percentage of various types are shown in Tables II to V, and IX to XII. A stratigraphic picture of the relationship of the various types at the Gaston site is seen in Figure 39.

A description of the projectile point and blade types encountered in this survey follows.

Description of the Projectile Point and Blade Types

Clarksville[27] (Plate 20)

Overall length: Range, 10–20 mm; majority, 12–15 mm.
Basal width: Range, 10–16 mm; majority, 12–14 mm.
Blade: Most are equilateral triangles, but a few are isosceles. Several specimens show serrated edges. There are no incurvate sides, but a few specimens show a slight excurvate trend. The angles tend to be acute rather than rounded.
Stem: None.
Base: Predominantly straight, but a few specimens have a slightly incurvate base.
Diagnostic features: This type constitutes the smallest type examined in the survey. Their diminutive size and form distinguished them from the other triangular forms.
Technique of manufacture: Generally well made by careful, even pressure flaking. Usually symmetrical, but a few are asymmetrical.
Type of rock: Mostly white quartz, but slate, crystal quartz, and quartzite occasionally occur.
Comment: This type is Holland's Type A.[28] The form used for these type descriptions was the same used by Holland in his projectile point analysis. The Clarksville name was suggested by Joffre Coe, and was described by him in 1952.[29]

Roanoke (Plate 20)

Overall length: Range, 21–30 mm; majority, 25–28 mm.
Basal width: Range, 18–28 mm; majority, 2l–25 mm.
Blade: Most are isosceles triangles, with a few that are equilateral. Most have straight sides, but a few are incurvate, and a few are serrated.
Stem: None.
Base: Slightly concave bases appear on most specimens, but a few have straight bases.
Diagnostic features: Thin, usually well-made points.
Technique of manufacture: Well-made pressure-flaked points.
Type of rock: Mostly white quartz and slate. Some are of quartzite, crystal quartz, and felsite. One was of chert, being one of two points of this material found in the survey.
Comment: The type name was suggested by Joffre Coe, based on a 1938 survey of the Clarksville, Virginia, area.[30] Some of the smaller and more equilateral points in this type may belong within the Clarksville type since there is a blending of the Clarksville with the Roanoke type.

Large Triangle (Plate 20)

Overall length: Range, 40–60 mm; majority, 43–50 mm.
Basal width: Range, 28–34 mm; majority, 29–32 mm.

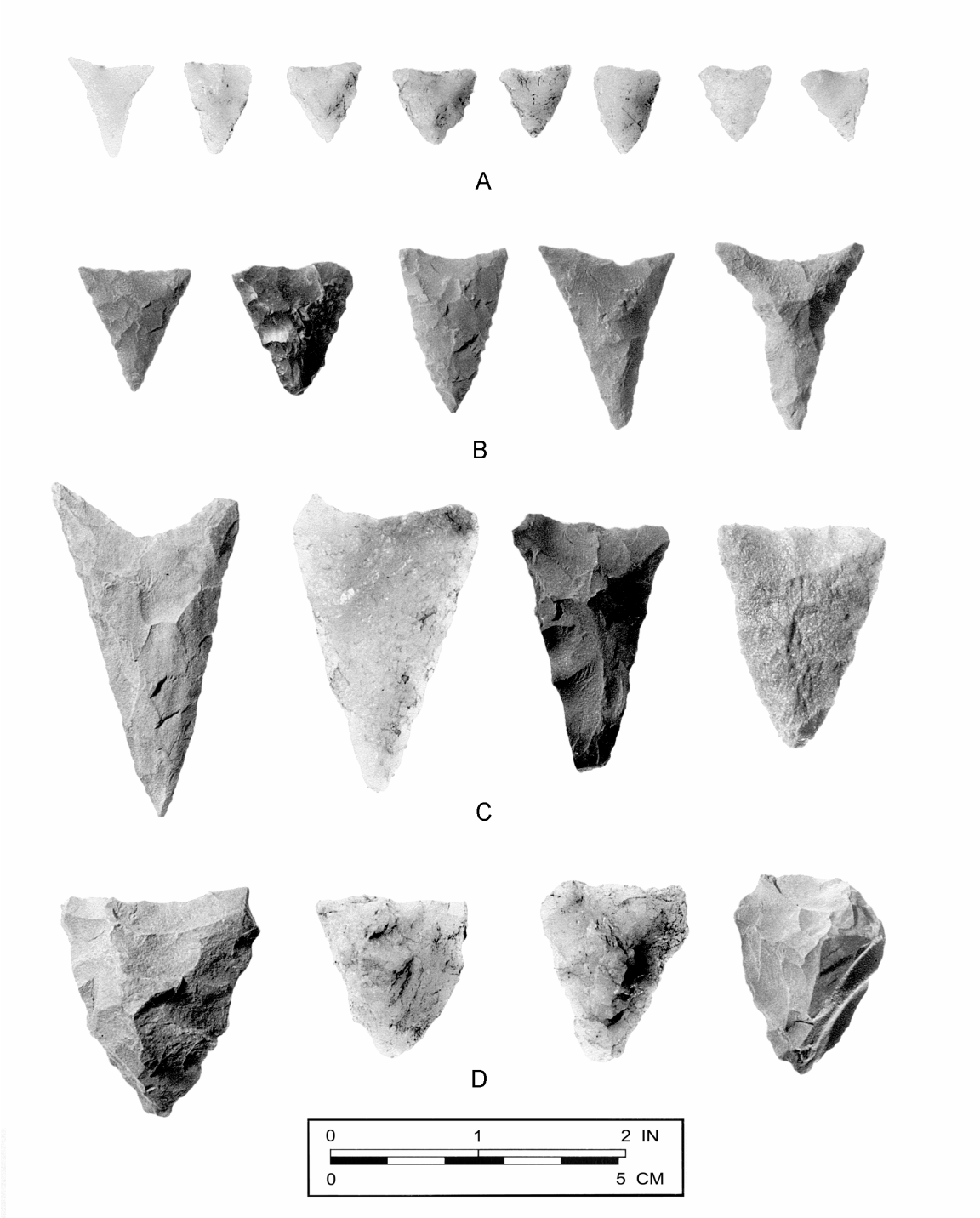


Plate 20. Triangle projectile point types. A: Clarksville. B: Roanoke. C: Large Triangle. D: Crude Triangle. See Appendix D for catalog numbers and provenience.

Blade: Large, straight-sided isosceles triangle with straight to deeply concave bases.
Stem: None.
Base: Straight to deeply concave.
Diagnostic features: Large triangular point with straight sides and a straight-to-concave base. Thicker than Roanoke type.
Technique of manufacture: Well-made pressure-flaked point, though not so well chipped as the majority of Roanoke points.
Type of rock: Most are of slate, followed by white quartz and quartzite.
Comment: Largest of triangular type points. This type can be considered as a variation within the Roanoke type, representing the upper size range of the Roanoke type.

Crude Triangle (Plate 20)

Overall length: Range, 25–40 mm.
Basal width: Range, 27–35 mm.
Blade: Thick triangular artifacts, some as thick as they are broad.
Stem: None.
Base: Straight, concave, or convex.
Diagnostic features: Crude, thick triangles.
Technique of manufacture: More frequent percussion marks and large flaking scars on this type than on the other triangular types. Fine pressure flaking absent.
Type of rock: White quartz and slate material predominates with one each of quartzite and crystal quartz.
Comment: This type corresponds to Holland's Type D in his analysis of Virginia projectile point and blade types, and can be considered as a crude variety of the Roanoke type.[31]

Thelma (Plate 21a)

Overall length: Range, 27–41 mm; majority, 33–37 mm.
Shoulder width: Range, 16–21 mm; majority, 17–20 mm.
Blade: Trianguloid with straight to slightly excurvate sides. The shoulder angle is usually obtuse.
Stem: Width, 6–13 mm; majority, 10–13 mm. Length, 5–8 mm. Angle between stem and blade usually obtuse, seldom approaching a right angle. Sides usually paralleling each other.
Base: Occasionally the base may extend beyond the side of the stem, giving a notched appearance to the stem. Base is usually straight.
Diagnostic features: Small, stemmed, basically trianguloid-shaped blade.
Technique of manufacture: Pressure flaking with some marks of percussion showing occasionally. Flaking good to poor depending upon the type of material used. White quartz points usually not as well made as those of slate.
Type of rock: Slate and white quartz predominate with a few of quartzite and felsite.
Comment: Over half the points of this type were found at the Thelma site. This type is associated with the Vincent series pottery and may represent a transition type from the stemmed Archaic projectile points to the triangle Roanoke type arrowhead.

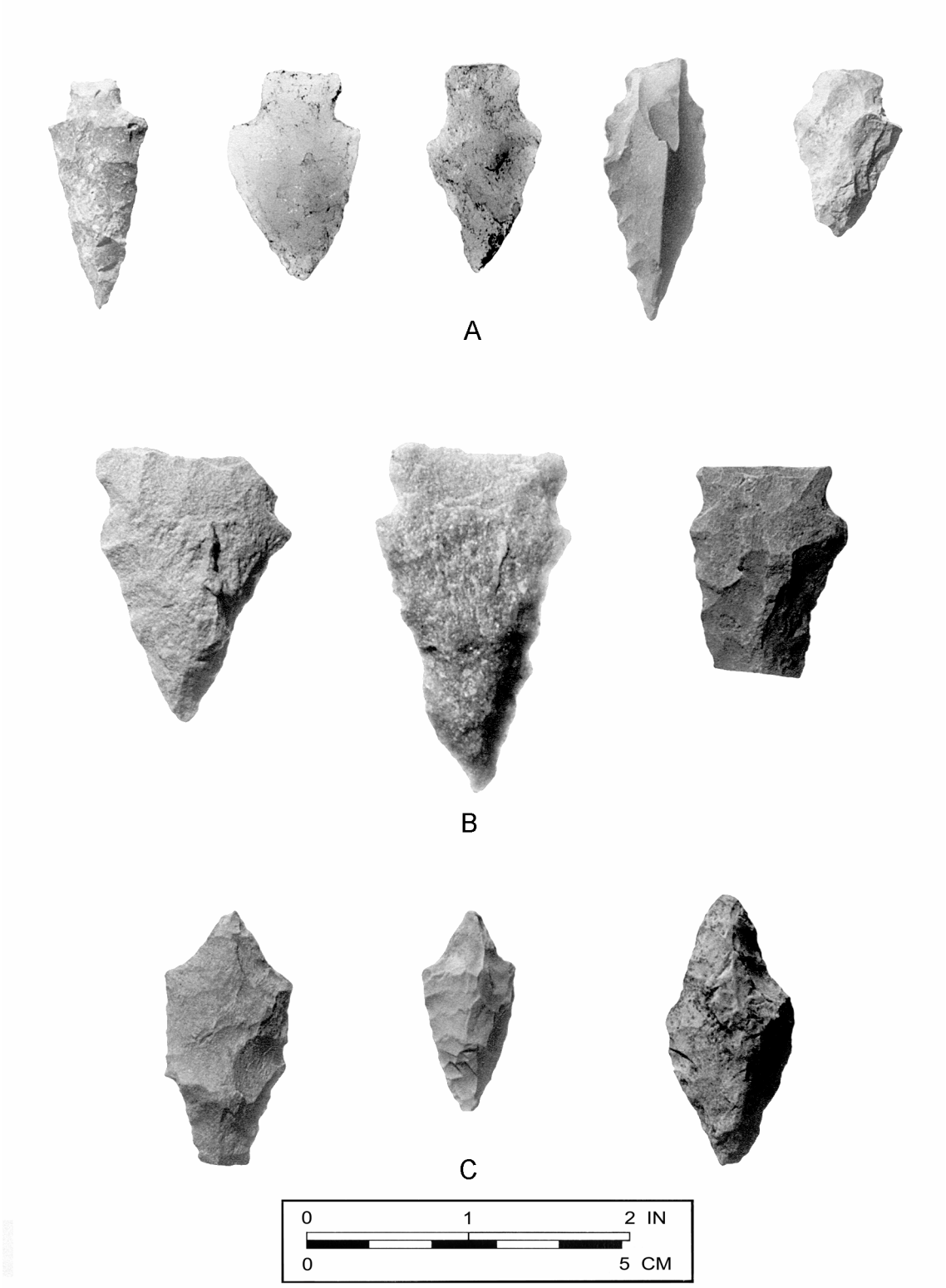


Plate 21. Projectile point types. A: Thelma Small Stemmed projectile points. B: Projectile points included in the "Other" category. C: Morrow Mountain projectile points. See Appendix D for catalog numbers and provenience.

Morrow Mountain (Plate 21c)

Overall length: Range, 34–55 mm.
Shoulder width: Range, 15–20 mm.
Blade: Trianguloid. Shoulder rounded or angular. Sides straight to slightly convex.
Stem: Pointed, giving it a triangle shape, with the base near the blade.
Length: Varies from 9–20 mm.
Base: Pointed. See stem.
Diagnostic features: Triangle point with pointed stem.
Technique of manufacture: Pressure flaked.
Type of rock: Mostly slate with some white quartz.
Comment: This is not a significant type in this study since most of the points were found in the surface survey and excavation did not reveal its stratigraphic position. Joffre Coe has located it in a stratigraphic context that is definitely pre-pottery in time. He has divided the type into Morrow Mountain I and Morrow Mountain II. It was first described by him in 1952,[32] along with the Guilford focus, but since that time it has been definitely determined through stratigraphic tests that the Morrow Mountain types represent a cultural assemblage earlier than Guilford.[33]

Small Savannah River (Plate 22a)

Overall length: Range, 45–65 mm; majority, 45–55 mm.
Shoulder width: Range, 21–33 mm; majority, 20–26 mm.
Blade: Trianguloid with sides straight to slightly excurvate. Shoulders rounded to angular. Shoulder thickness varies from 6–14 mm.
Stem: Length varies from 8–12 mm; width, 14–20 mm. Angle between stem and blade varies from right angle to an obtuse curve. The stem is frequently to one side of the point, causing the stem on that side to form an almost continuous excurvate line with the blade; but on other examples the stem is in the center of the blade. The sides are often parallel.
Base: The base usually straight to slightly excurvate.
Diagnostic features: Medium-sized, trianguloid points with stem frequently to one side.
Technique of manufacture: Percussion flaking, usually good.
Type of rock: Quartzite and slate are primary materials with felsite and white quartz being used less. (See Figure 40 for the relationship between projectile point types and rock chips.)
Comment: On the basis of typology this type has been described separately from the type Large Savannah River; however, stratigraphically they occur together and were without a doubt used by the same people. (See Figure 39 for stratigraphic relationship of Savannah River types at the Gaston site.) The name Savannah River for this type is used in this survey because I feel that it is the basic Savannah River type point, as described by Claflin, Fairbanks, and Coe, has such a wide distribution that the popular practice of giving it a new name every time it is found in a different locality only adds more confusion and unnecessary terminology to the growing lists of artifact types.[34] In this survey the Savannah River types were found in an entirely pre-pottery context. This and the Large

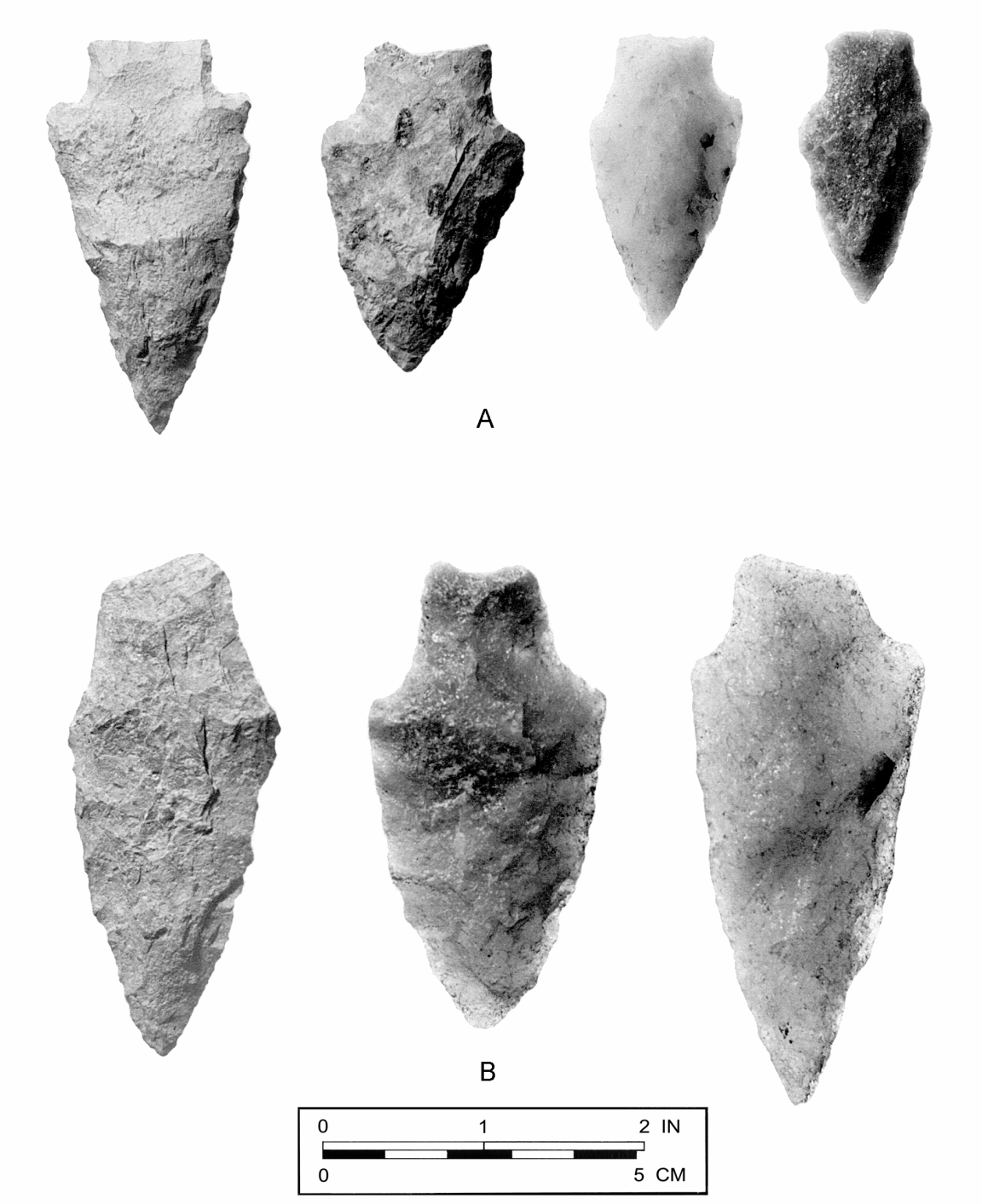


Plate 22. A: Small Savannah River projectile points. B: Large Savannah River projectile points. See Appendix D for catalog numbers and provenience.

Savannah River type are apparently what Holland calls Parallel-sided Stemmed.[35] Whenever the term Savannah River is used in graphs and charts in this report it refers to the combination of this type with the Large Savannah River type, unless otherwise stated.

Large Savannah River (Plate 22b)

Overall length: Range, 75–105 mm; majority, 75–90 mm.
Shoulder width: Range, 34–38 mm.
Blade: Trianguloid with slightly excurvate sides. Shoulders rounded or an obtuse angle; seldom a right angle.
Stem: Length varies from 27–32 mm; width, 21–25 mm. One side of the stem is occasionally slightly ground. The sides of the stem are not usually parallel, but expand toward the shoulder, forming a curve between the stem and the blade.
Base: Usually slightly concave or straight with a slope to one side; a few have straight bases without the slope.
Diagnostic features: Large trianguloid, stemmed point with a curve joining the stem to the blade.
Technique or manufacture: Percussion flaking, well made.
Type of rock: Quartzite is by far the most frequently used material, followed by white quartz, felsite, slate, crystal quartz, and diorite in order of occurrence. (See Figure 40 for relationship of Savannah River types with rock chips at the Gaston site.)
Comment: See comments under Small Savannah River type. Occurs stratigraphically in a pre-pottery context. (See Figure 39 for the stratigraphic relationship of Savannah River types at the Gaston site.)

Halifax (Plate 23a)

Overall length: Range, 29–56 mm; majority, 38–47 mm.
Shoulder width: Range, 17–25 mm; majority, 19–21 mm.
Blade: Long and relatively narrow, to short and trianguloid. Cross-section is oval. Shoulders usually rounded, but may be angular, especially on the shorter specimens. Sides are straight to slightly excurvate, and on the shorter specimens there is a tendency toward incurvate sides.
Stem: The points are side notched with a shallow-to-medium notch. This notch is usually ground, as is the base. Length, 9–16 mm; width, 15–20 mm.
Base: The base is usually slightly narrower than the shoulders; however, on the smaller specimens the base is sometimes wider than the shoulders. The base is usually ground and straight, but some specimens are slightly concave and others are slightly rounded.
Diagnostic features: Usually a relatively long narrow blade with ground side notches. The base is also frequently ground. Shoulders are usually slightly wider than the base.
Technique of manufacture: Pressure flaked, well-made points.
Type of rock: Of the 38 Halifax points found in the surface survey and through excavation at the Gaston site, 30 of them are of white quartz. Four were of quartzite, three of slate, and one of crystal quartz. (See Figure 39 for stratigraphic relationship of Halifax points with rock chips.) The high percentage of white

quartz is probably just a local preference since many surface collections from North Carolina contain the same type, but of slate or other material.

Comment: This type occurred stratigraphically below the Savannah River types, separated by several inches of sterile, river-laid sand. (See Figure 39 for stratigraphic relationship of Halifax points.) This type is what Holland breaks into the two types called Notched Stemmed and Stubby Barbed.[36] Since they were found stratigraphically together and have so much in common, including the ground notches and bases, they have been considered as the same type in this survey. Coe had previously found the Guilford assemblage overlaid by the Savannah River Archaic material, but this is the first time the stratigraphic position of this Halifax type point has been determined. The Halifax assemblage falls between the Guilford and Savannah River levels, but is closer stratigraphically to the Guilford assemblage at the Gaston site.

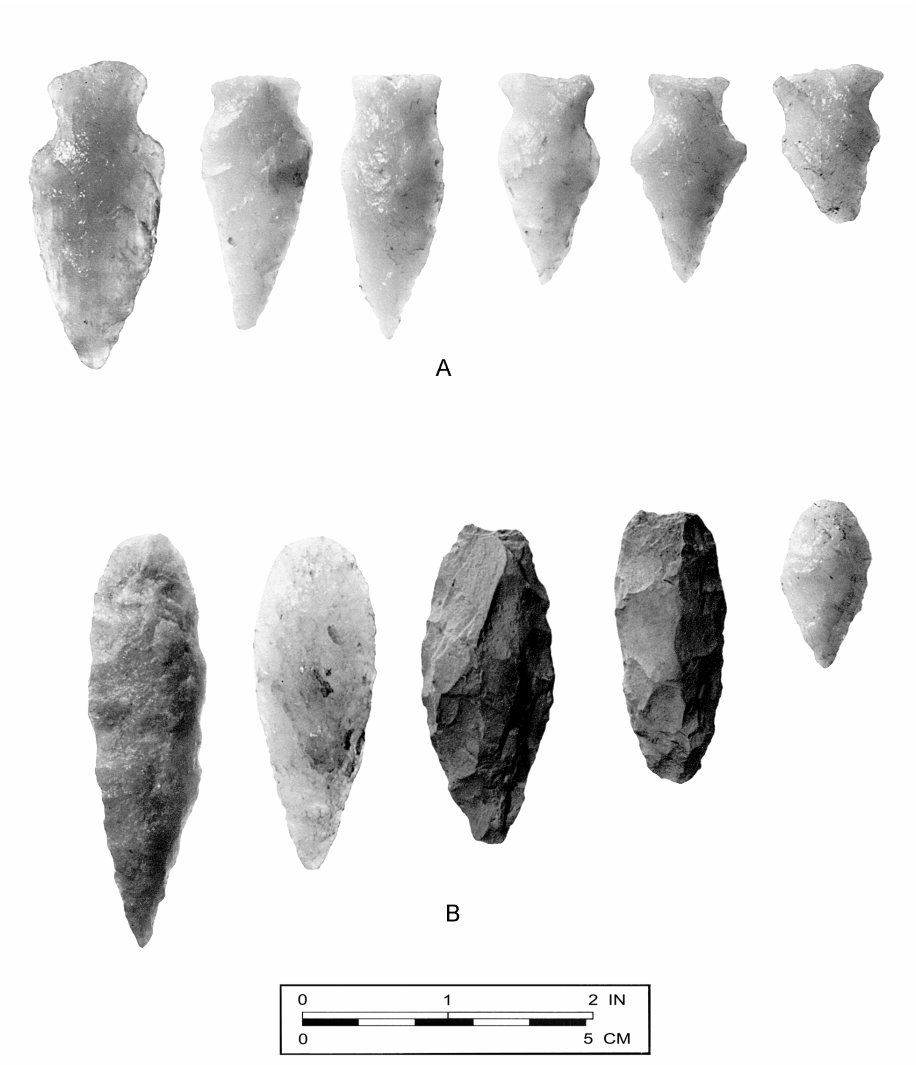


Plate 23. A: Halifax projectile points. B: Guilford projectile points. See Appendix D for catalog numbers and provenience.

Guilford (Plate 23b)

Overall length: Range, 31–75 mm; majority, 56–65 mm.
Width at widest pint: Range, 17–25 mm; majority, 21–24 mm.
Blade: Long oval blade with a thick cross-section varying from an oval to round.
Stem: None. However, one specimen found in a stratigraphic context with others of the type has a definite angle at the widest point that gives the appearance of a slight stem to the basal third of the point.
Base: The base is usually rounded but several have a slightly concave base, and some have a straight base.
Diagnostic features: Long oval blade, rounded to concave base, thick in cross-section.
Technique of manufacture: Percussion flaking. Usually they are well made.
Type of rock: Half of the Guilford points located in the survey were of slate. Quartzite, white quartz, and felsite were used in that order. (See Figure 40 for the relationship between Guilford point material and rock chips.)
Comment: The Guilford points were located in a stratigraphic context a few inches below the Halifax type at a depth of 58–64 inches. This type is similar to Holland's Lanceolate type. Joffre Coe first described and named the Guilford type in1952.[37] He has found the type in a stratigraphic context in the flood plains of the Upper Pee Dee River and, as I found at Roanoke Rapids, overlaid stratigraphically by the Savannah River and other later cultures. At the time he wrote, the Guilford assemblage was the oldest known in the Carolina Piedmont, but since that time several earlier assemblages have been discovered in a stratigraphic context below Guilford, the earliest of these characterized by longitudinal fluting.[38]

Small Oval Blade (Plate 24a)

Overall length: Range, 48–70 mm; majority, 48–55 mm.
Width at widest point: Range, 25–32 mm; majority, 30–32 mm.
Blade: Small oval blade with widest part usually near the center.
Stem: None.
Base: Usually rounded in a continuous curve from the blade, but an occasional specimen has a straight base with rounded corners.
Diagnostic features: Small oval blade with rounded base.
Technique of manufacture: Percussion flaking. These blades are poorly formed compared to the Large Oval Blade type.
Type of rock: White quartz predominates with slate the second most frequently used material. One projectile point each of quartzite and felsite were recovered. (See Figure 140 for relationship between Small Oval Blade type and rock chips.)
Comment: This type occurred stratigraphically, and seems to be associated, with the Halifax type point. (See Figure 39 for table of stratigraphic relationship of points and blades at the Gaston site.)

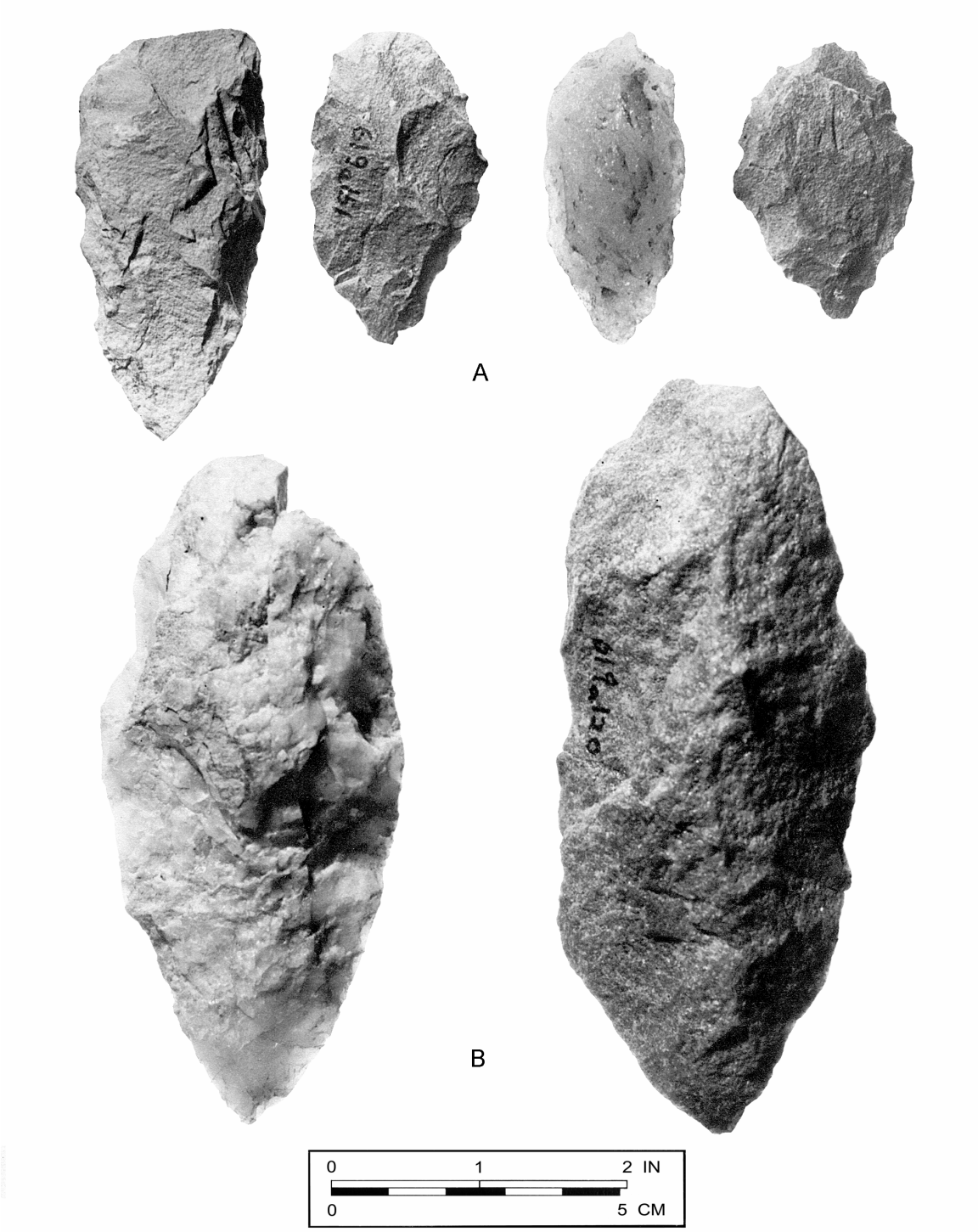


Plate 24. Oval blade types. A: Small oval blade associated with the Halifax type projectile point. B: Large oval blade associated with the Savannah River projectile point. See Appendix D for catalog numbers and provenience.

Large Oval Blade (Plate 24b)

Overall length: Range, 100–135 mm.
Width at widest point: Range, 50–55 mm.
Blade: Large oval blade with widest point near center.
Stem: None.
Base: Rounded.
Diagnostic features: Large oval-shaped blade.
Technique of manufacture: Percussion flaking.
Type of rock: Quartzite predominates with white quartz secondary. Minor materials are slate and felsite. (See Figure 40 for relationship between the Large Oval Blade type and rock chips.)
Comment: This type was found stratigraphically and, as is shown in Figure 39, it occurs with the Savannah River type points.

Other Projectile Points (Plates 21b and 25a)

Some projectile points were not typed because of the small percentage of occurrence. These miscellaneous points were placed under the category "Other." Three such points are shown in Plate 21b. One point with a concave base and side notches was found on site $Np^{v}2$. It is known to be associated with a fluted type in a stratified context and is thought to be at least 10,000 years old.[39] Another type included in this "other" category is a small pentagonal point of which three specimens were found. This type occurs in the protohistoric Pee Dee focus described by Joffre Coe.[40] It is illustrated in Plate 25a, along with some other points in the "other" classification.

Description of Stone Objects Recovered in the Project

Stone Drills (Plate 25b)

These chipped-stone artifacts are made from a flake of stone, slate being used most frequently. They are from 1–2 inches long and are different from a projectile point in that the base is not finished by secondary chipping. Only the working shaft of the drill has secondary chipping. There are two types of drill shafts. One has sides that expand gradually toward the base, while the other has the sides parallel all the way to the base.

Drilled Stone Gorgets (Plate 25c and 25d)

This group of artifacts consists of broken fragments of worked and drilled stone objects commonly referred to as gorgets. Most fragments found in this survey have two tapering holes drilled through the flat side of the stone. Several fragments have tapering sides and appear to be fragments of what are frequently called "expanded center bar gorgets." One such specimen has a rounded end, and another a squared end. The material used is usually a soft stone such as steatite, chlorite schist, or shale. A triangular steatite object listed as a gorget, and shown in Plate 30d, may be a net sinker rather than a gorget.

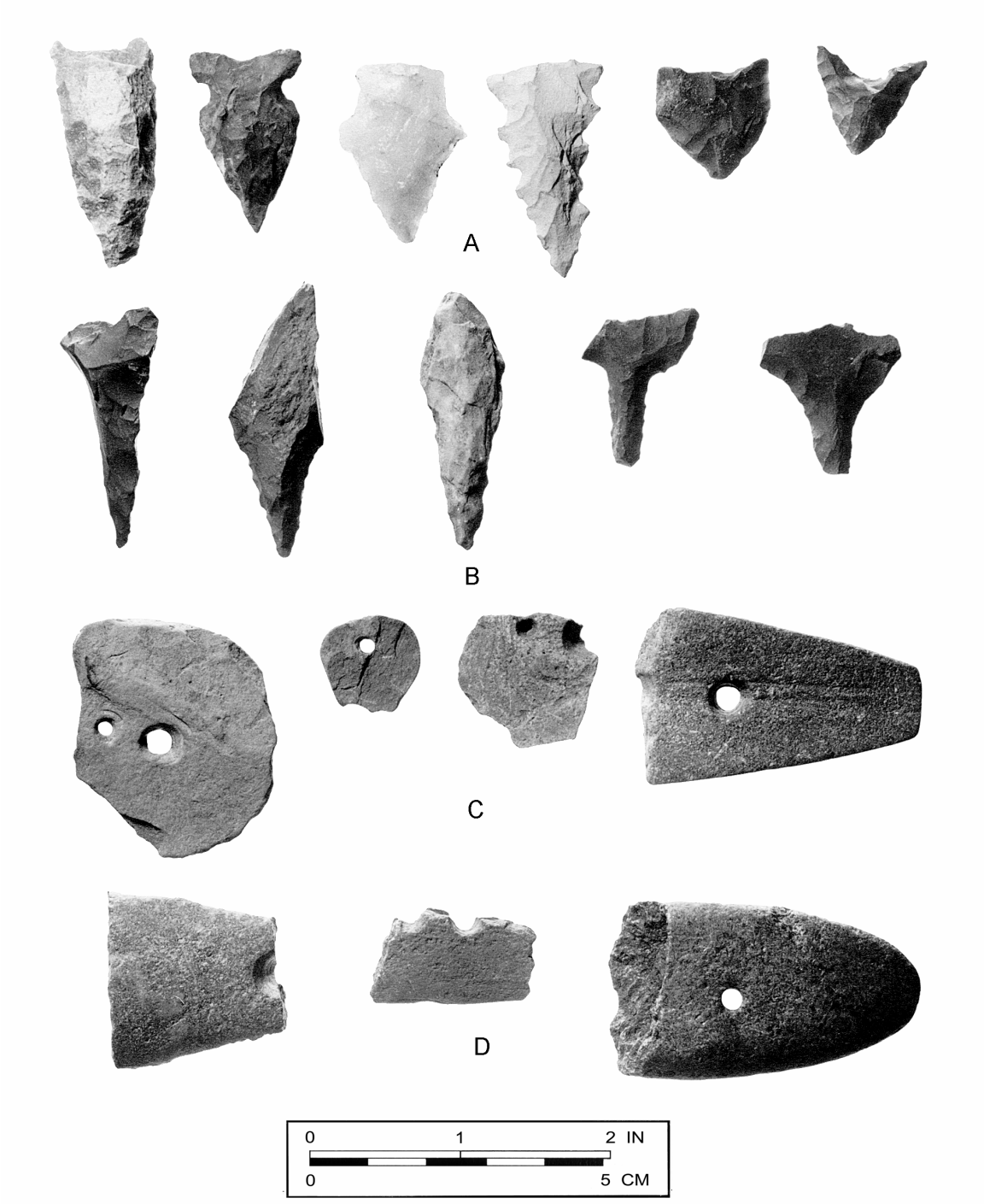


Plate 25. Other projectile points, drills, and gorgets. A: Miscellaneous projectile points included in the "Other" category. Second from the right is a Pee Dee pentagonal type. The last point on the right is of chert, one of two found in the survey. B: Chipped stone drills. C: Drilled stone gorget and flat stone fragments. D: Drilled stone gorget and flat stone fragments. See Appendix D for catalog numbers and provenience.

Drilled Stone (Plate 25c)

These objects are usually flat stone fragments that have a hole drilled near one end. They show no sign of having been worked otherwise.

Full Grooved Ax (Plate 26)

Only two specimens of this type were found in the basin. Both are pecked over the surface area, and the groove is a deeper-pecked area extending around the stone slightly above the center, toward the base. A third specimen had the shape of an ax and was pecked over the surface, but the groove was not pronounced. This specimen is referred to as a "pecked ax" in this report. The slightly grooved specimens are referred to as "full grooved ax (rough)." One specimen was found in the yellow sand near Feature 20.

Chipped, Notched Ax (Plate 27)

These chipped-stone axes are notched on each side near the center. They range in size from 3–6 inches long and from 2–4 inches wide. Some specimens are sharpened by chipping on one edge only, while others are sharpened on both edges. This type ax was found in a stratigraphic context at the Gaston site. Of the seven axes of this type found in the survey, three were associated with the Halifax type projectile points, and two were with the Guilford type. Table XXI shows the stratigraphic relationship of the Notched Ax type.

Joffre Coe has described this ax type and its association with the Guilford points as representing one of the oldest culture complexes in the Carolina Piedmont.[41] Since he wrote in 1952, older assemblages have been located stratigraphically below the Guilford, but the Guilford cultural material is the oldest located in the present survey in a stratified context.

Worked Red Ochre (Plates 28a and 40g)

Fragments of red, orange, and yellow ochre were located in the process of excavation. These are sometimes smoothed as if worked, and sometimes they are not. When not smoothed through use they are referred to as "ochre fragments." A mass of such fragments was found associated with some large fragments of a steatite vessel in the yellow sand after the bulldozers had removed the black midden from the Gaston site (Plate 28a). One large lump of worked red ochre was found at the Guilford level at a depth of 63 inches from the surface of the Gaston site. This particular lump of ochre (shown in Plate 40g) was flat on one side and rounded on the other. Its basic shape was oval, and it was covered with scratches. The same pattern of scratches was repeated again and again over the surface of the lump, indicating the indentations in the scraping tool used to scrape the lump. The lump was five inches long by three inches wide, and it was two inches thick.

Pecked Stone Balls (Plate 28b)

Some of these objects were found while walking after the bulldozers and road graders at the Gaston site. They are perfectly round stone balls, from 2–2.5 inches in diameter.

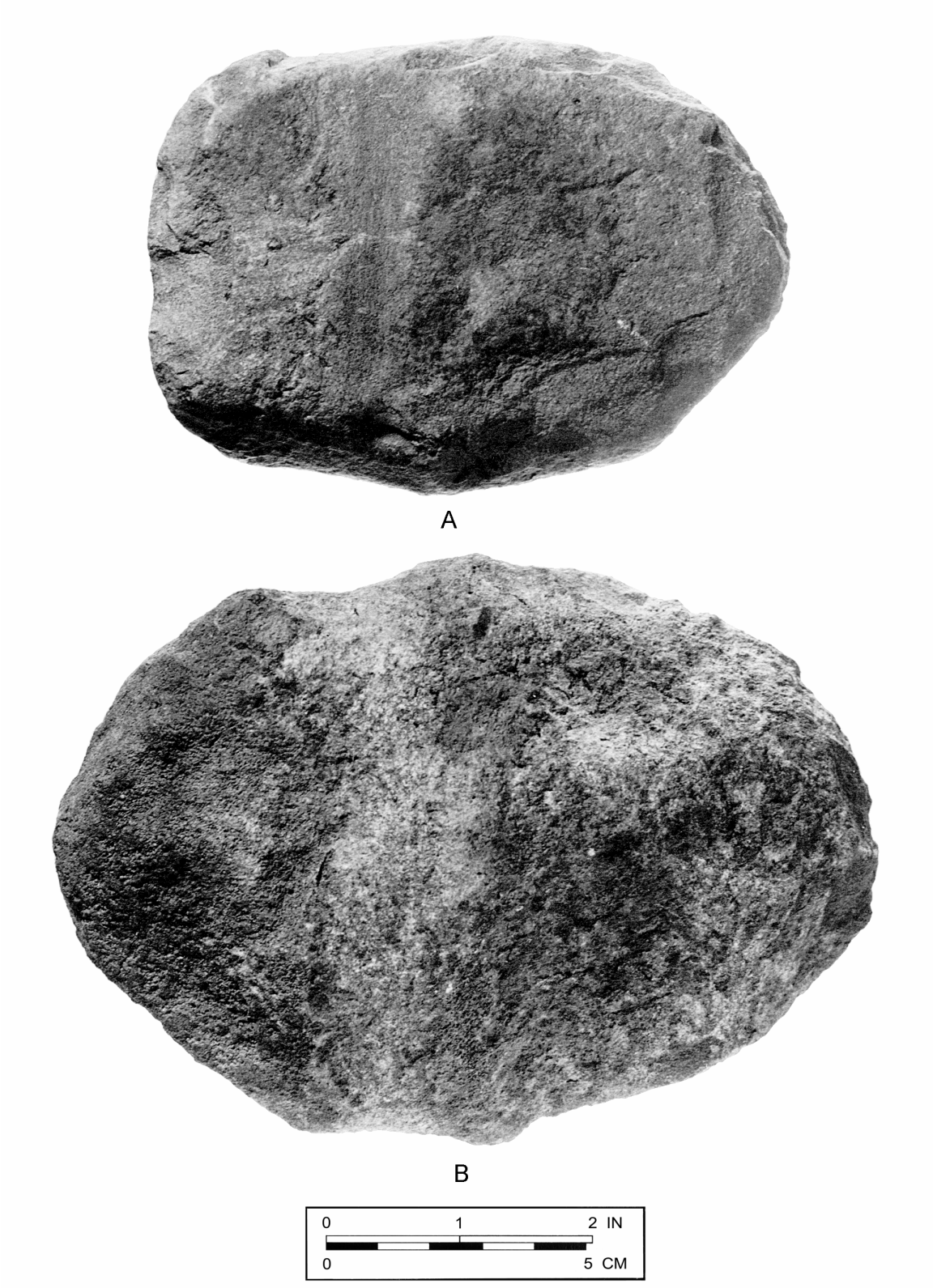


Plate 26. Pecked, roughly-grooved axes, probably belonging to the Savannah River occupation of the Roanoke Rapids basin. A: From Hx^{v}10, square 1, level 0–8" (cat. no. 628a11). B: From Hx^{v}7, square 35R115, in the yellow sand matrix beside Feature 20 (cat. no. 619a776).

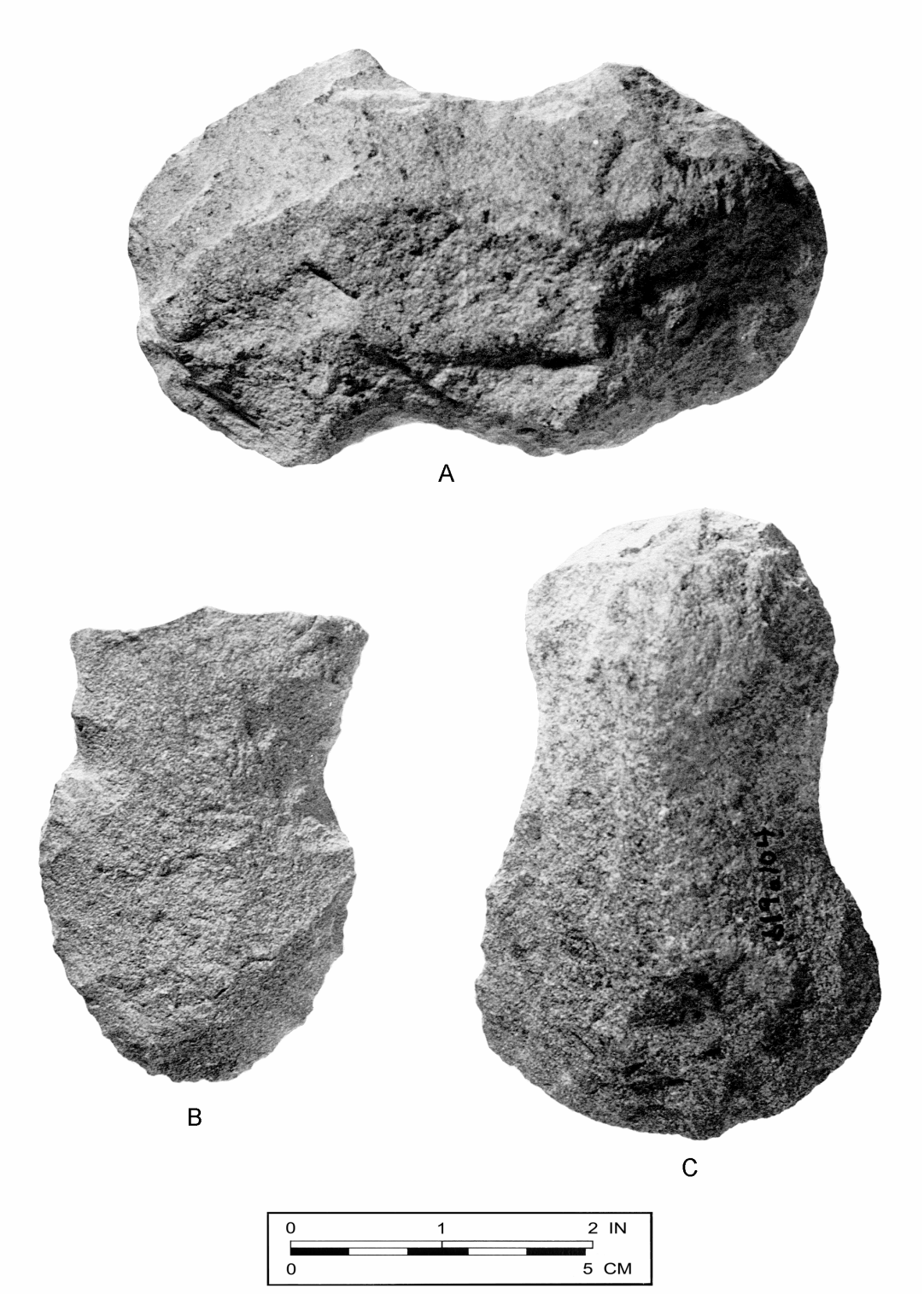


Plate 27. Guilford chipped, notched axes from the Gaston site. A: From square -28L76 at a depth of 41 inches (cat. no. 619a124). B: From square -60L60 at a depth of 61 inches (cat. no. 619a133). C: From square 55L25 at a depth of 66 inches (cat. no. 619a104).

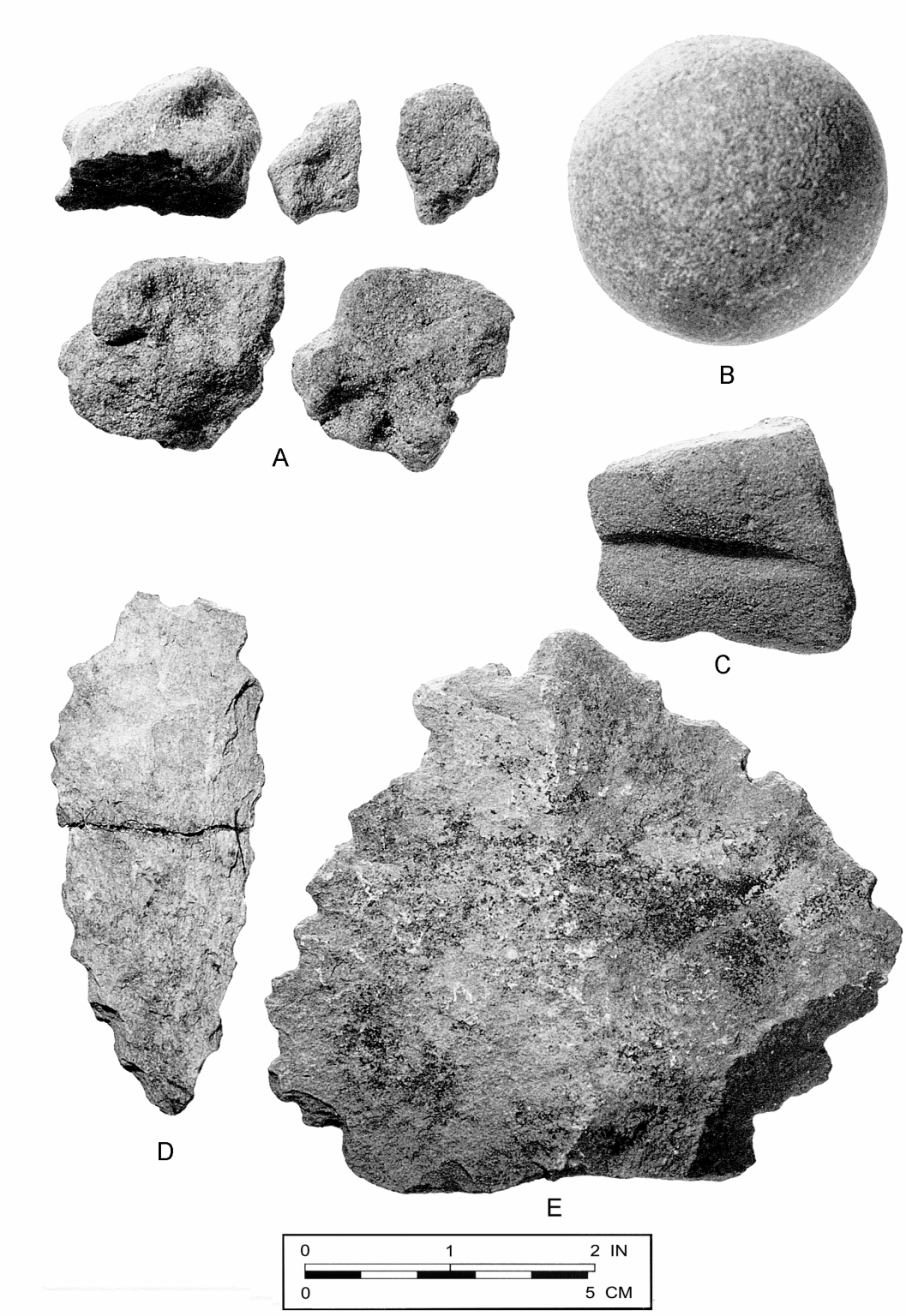


Plate 28. Miscellaneous stone artifacts from the Gaston site. A: Red ochre lumps (cat. no. 619m1289). From square -95R35 in the yellow sand matrix beside Feature 154. B: Pecked stone ball (cat. no. 619a36). Found while following the road grader. C: Grooved stone (cat. no. 619a20). Found while following the road grader. D and E: Sinew stones (cat. no. 619a30). Found while following the road grader.

They may represent hammerstones that have been pecked on all sides through use, or they may have been intentionally rounded as gaming stones.

Grooved Stone (Plate 28c)

Several grooved stones were located in the survey. These consist of either pebbles or broken fragments of stone that have scratches or grooves cut into them. The material is usually a soft stone such as sandstone or ochre.

Sinew Stone (Plate 28d and 28e)

These weathered slate stones with notches around the edge have sometimes been called sinew stones in the belief that they were used in the preparation of sinew. The two shown in Plate 28 are the only ones of this type found in the basin.

Scraper

Only one chipped-stone scraper was found in the survey. This was a siliceous slate flake with secondary chipping around one end. This type scraper is typically associated with very early lithic material. The Hardaway site ($St^{v}4$) in Piedmont North Carolina has thousands of such scrapers.[42]

Mortar

One complete stone mortar was located in the surface survey, and two broken fragments were in a hearth at the Halifax level at the Gaston site. They are made of a large stone, usually 8–16 inches across, with a basin-like depression abraded into the center. Some of the stones in the Abraded Stone category may have been used as pestles on such mortars.

Pecked Stone Ring

One of these objects was found in the surface survey at site $Hx^{v}12$. It is a broken fragment of what apparently was a pecked stone ring. It is round in cross-section and, if complete, would have been 2.25 inches across, with a hole in the center one-half inch in diameter. It may have been used as a net sinker, or may have been a type of atlatl weight.

Stone Celts (Plate 29)

Pecked and polished stone celts were found ranging from 2.5–6 inches long. The smaller celts are usually quite thin (half inch) and highly polished. The celts of five inches or more in length are usually round or slightly oval near the base. Polishing is usually more pronounced near the cutting edge and tapers into a pecked appearance near the base. One small celt was considerably battered at the base as though used as a wedge. Another had a very sharp cutting edge at both ends.

Boatstone Atlatl Weights (Plates 30a and 30b)

This is the term commonly used to describe the hemispherical-shaped stones that have been hollowed out on the flat side. Several of these were found at the Gaston site

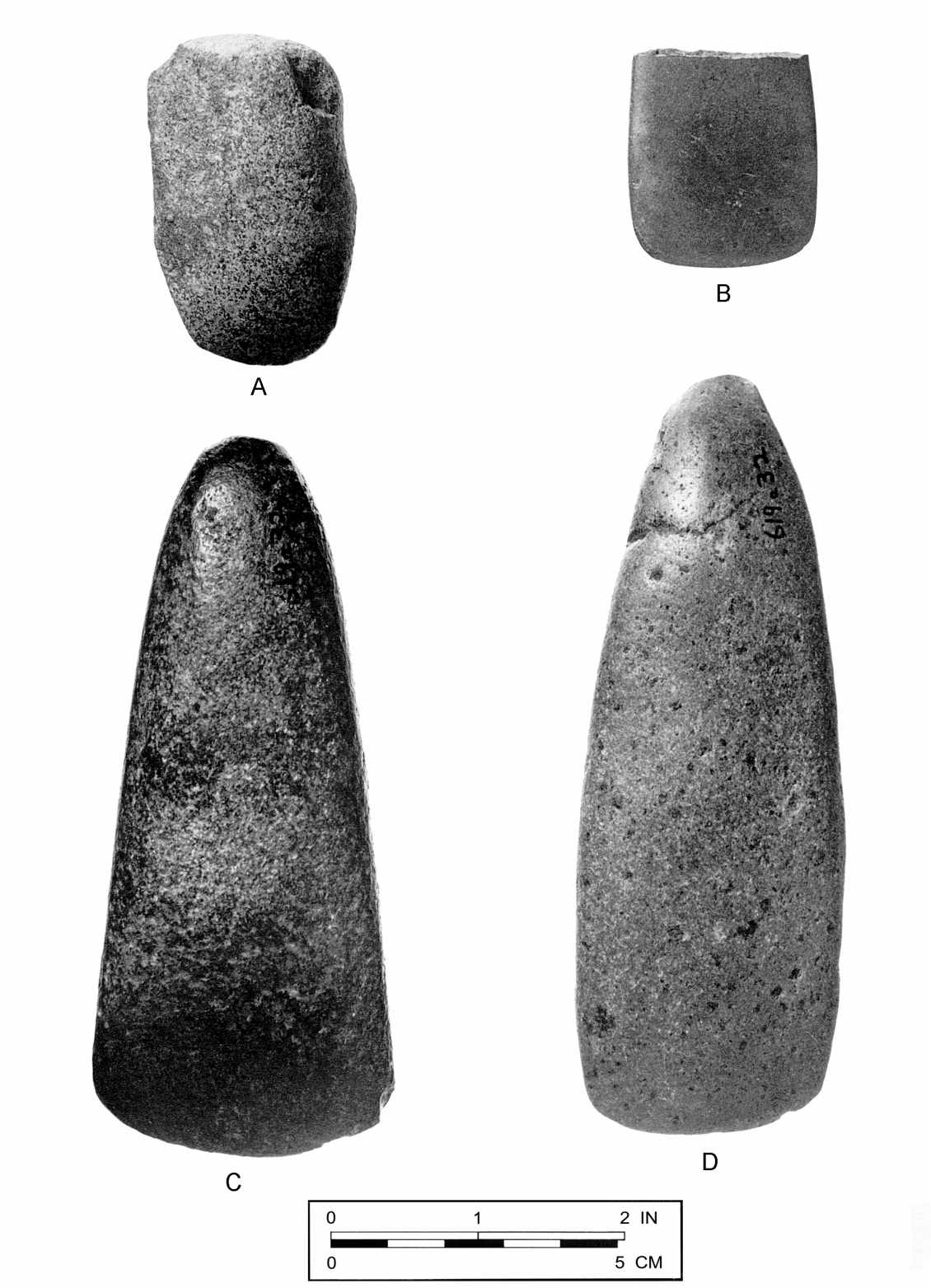


Plate 29. Polished stone celts. A: From the surface of site, Np^{v}17 (cat. no. 639a3). B: From the Gaston site, square -100R100, 9–20 inch level (cat. no. 619a605). C and D: From the Gaston site, (cat. no. 619a32). Found while following the road grader.

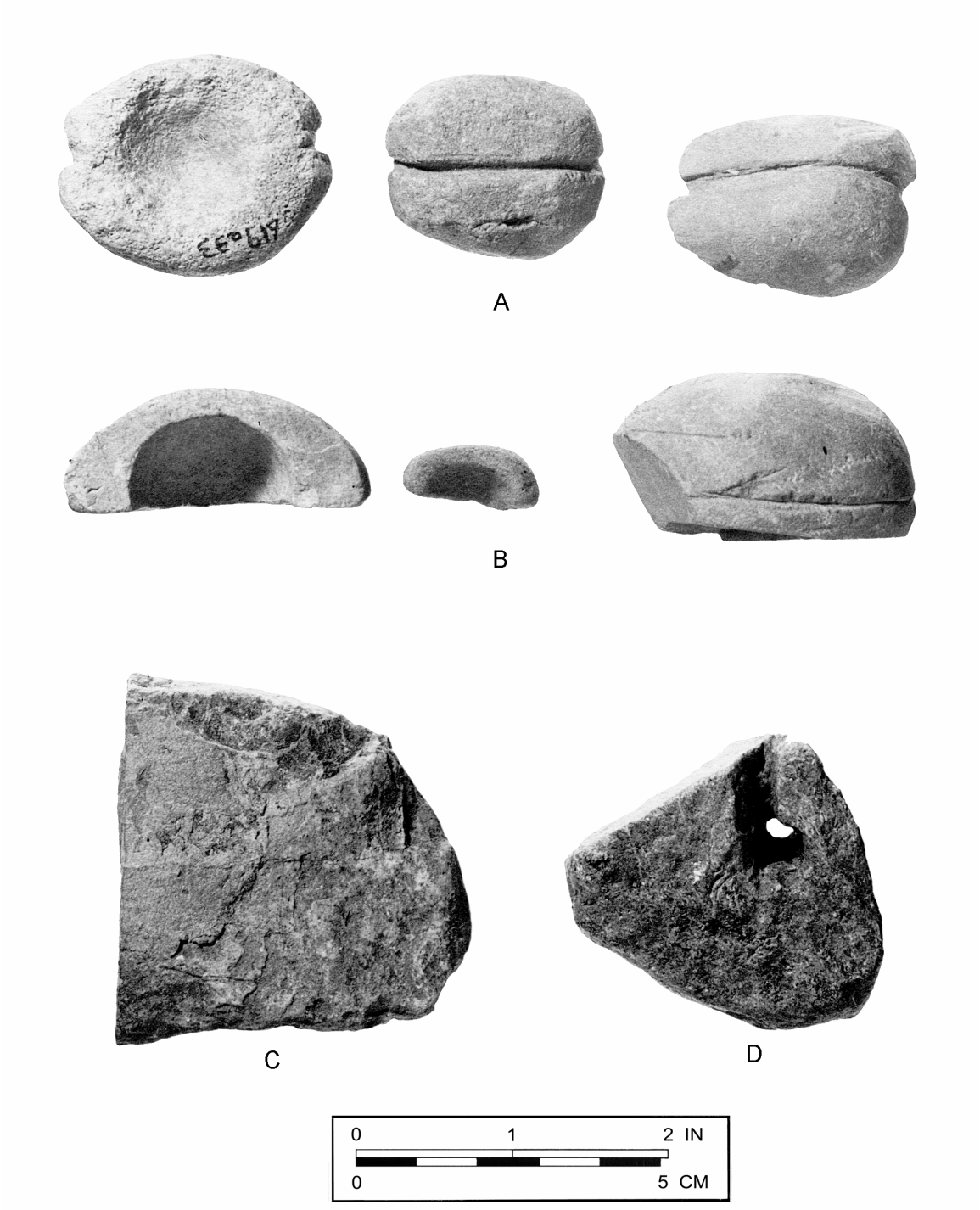


Plate 30. Atlatl weights and net sinker. A and B: Grooved and pitted boatstone atlatl weights from the Gaston site. C: Shaped and pecked atlatl weight fragment. D: Steatite net sinker. See Appendix D for catalog numbers and provenience.

during excavation. They are round to slightly oval and most are 2–2.5 inches across the longest axis. They are usually one inch thick. The pit is one-half inch deep on most specimens, and there is a groove cut around the curved side on all specimens. One very small specimen is seven-eighths of an inch across the long side. Several specimens are broken along the groove. Most are made of a very hard stone, but two are of red ochre. Several are illustrated in Plates 30a and 30b. There is a correlation between these boatstones and the early pottery types, Vincent Cord-marked and Fabric Impressed. Tables IX–XIII show the relationship between these artifacts and pottery types from pits at the Gaston site. Evidence now is sufficient, I believe, to warrant calling such boatstones, along with bannerstones, by the more suitable name atlatl weight, or spear-thrower weight.[43] This particular type could be called "boatstone atlatl weight" to distinguish it from the "bannerstone atlatl weight" type.

Joffre Coe has pointed out the evolutionary development of the atlatl weight from a strictly utilitarian function, when the weights were rectangular, oval, or crescent-shaped, to the more elaborately made "butterfly bannerstone" type, and finally to the "boatstone" type which was more ceremonial in nature than its ancestor types. This increased elaboration of form of the atlatl, and its greater use as a ceremonial object, came about with the decrease of the need for it as a food-procuring weapon (i.e., after the advent of the bow and arrow). The ultimate ceremonial form of the atlatl is manifested in the so-called copper and chipped-stone "maces" of Etowah, Spiro, and Moundville.[44]

Pecked Atlatl Fragment (Plate 30c)

A few of these artifacts were located in the survey. They are fragments of crescent-shaped atlatl weights in the rough stages of manufacture. This assumption is based on comparison with similar unfinished specimens from a site in piedmont North Carolina where hundreds of atlatl weights in various stages of manufacture have been found.

Polished Stone Pipes (Plate 31)

Two polished stone pipes of chlorite were found in the basin. One of these, a small platform pipe typical of the Hopewell Middle Woodland period, was found while walking behind the bulldozer at the Gaston site, looking for specimens.[45] The other pipe was found at the pelvis of Burial 7 at the Gaston site. (See Plate 46b for a photograph of the pipe in situ with the burial.) This pipe was of the platform type with the bowl at the end of the platform stem, and at an obtuse 45-degree angle with a stem. The stem was engraved with a series of triangles with their bases touching, with the triangles filled with parallel lines (see Plate 31). Similar incising was around the lip of the bowl which had a rim extending beyond the bowl.

This type pipe has been described by Joffre Coe and is of a much later period than the small platform pipe.[46] Sherds from the burial indicate that it was owned by the makers of the Gaston pottery.

The small pipe is typologically related to the Hopewell Middle Woodland culture period, indicating influence from the Ohio Valley area at an early time.[47] The larger engraved pipe type has been found associated with the Uwharrie focus in North Carolina and may indicate a Siouan influence at a late time period.[48] A few fragments of chlorite and steatite pipes were also found.

Plate 31. Polished stone pipes from the Gaston site. Top: Stone platform pipe of the Middle Woodland period (cat. no. 619a1496). Found while following the road grader. Bottom: Engraved chlorite pipe (cat. no. 619a1497) from Burial 7 at the Gaston site.

Abraded Stone (Plate 32)

These artifacts are river pebbles, from the size of a marble to those weighing several pounds, that have been abraded on one or more edges. The abrasion appears to have been made by a rubbing motion of the stone against some other stone or object, since the abraded areas have a fine-grained or smoothed appearance. Some stones have been abraded to such an extent that only a small portion of the original stream-polished surface remains. Hammering could produce this abrasion, but the presence of the rubbed appearance was the criterion for this type.

Pecked Stone (Plates 33a and 34a)

This group of artifacts is similar to the Abraded Stone type, but the range of size is not so great. Most of the stones of this type are as large as a man's fist or larger. They do not have the smooth, abraded look, but are pitted as though pecked or hammered against another stone.

Center-Pecked Stone Anvil (Plate 33b)

These stones are from 5–12 inches across and 2–3 inches thick. They have a pecked and abraded area in the center of one or both sides as though used as an anvil.

Plate 32. Worked river pebbles of the Abraded Stone type. Top left: From site Np^{v}2, square 1, level 0–6" (cat. no. 623a12). Top center: From the Gaston site, square 35R235, Feature 148 (cat. no. 619a1277). Top right: From the surface of the Gaston site (cat. no. 619a7). Left center: Found at the Gaston site while following the motor grader (cat. no. 619a24). Bottom left: From the surface of the Gaston site (cat. no. 619a7). Bottom right: Found while following the motor grader at the Gaston site (cat. no. 619a21).

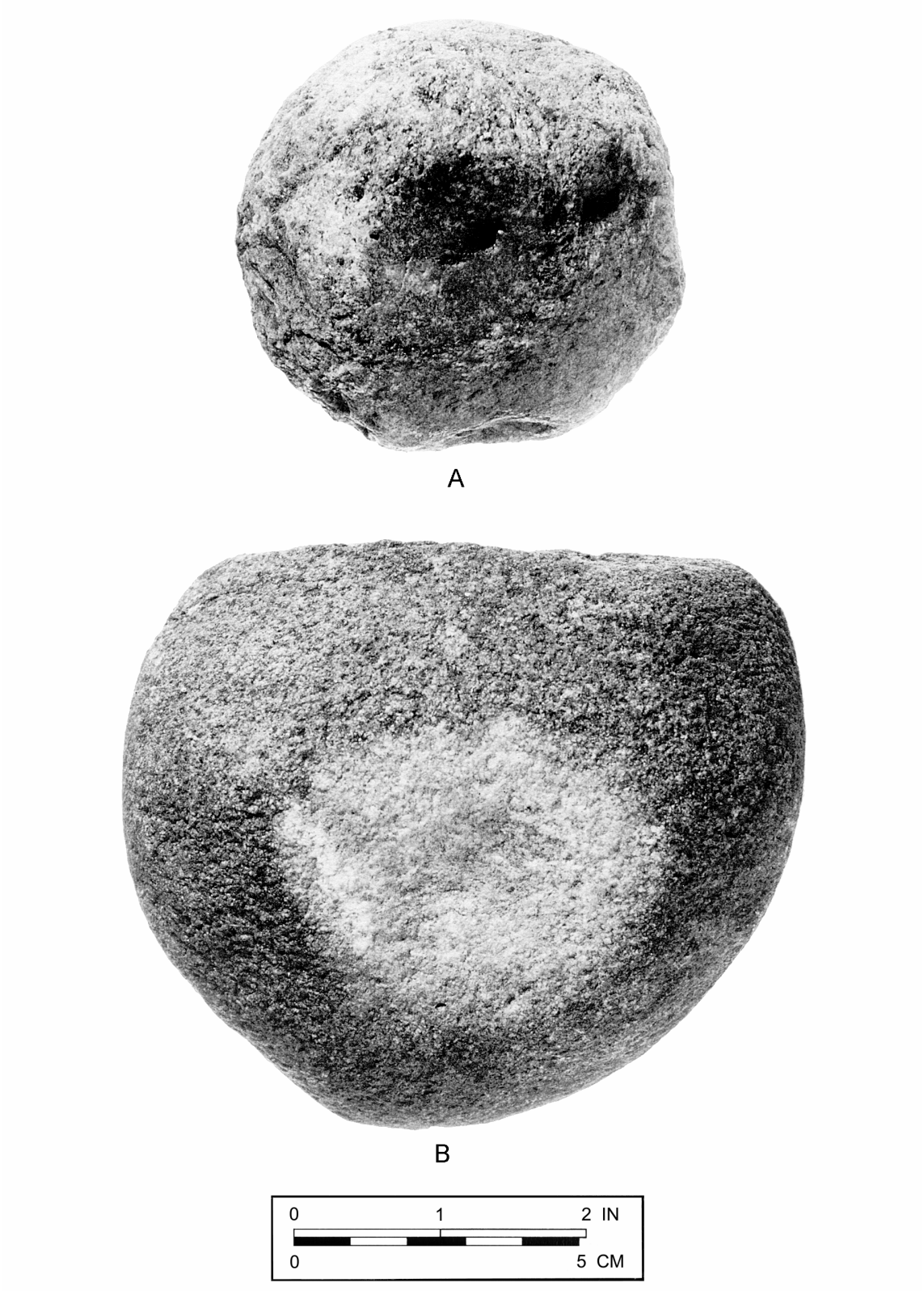


Plate 33. Worked stones from the Gaston site. A: Pecked hammer stone from square -25R230, Feature 126 (cat. no. 619a1216). B: Center pecked stone anvil found while following the motor grader (cat. no. 619a39).

Plate 34. Worked stones. Top left: Worked hammer stone of the Pecked Stone type from square -25R30, Feature 126, at the Gaston site (cat. no. 619a1216). Top right: Pecked hammer stone from the surface of site Np^{v}56 (cat. no. 679a3). Bottom left: Pitted stone from the surface of site Np^{v}13 (cat. no. 635a4). Bottom right: Pitted stone from the Gaston site from square -25R240, Feature 129 (cat. no. 619a1219).

Pitted Stone (Plate 34b)

These stones have no consistent shape. They seem to have been any stone that was available. Some are river-smoothed rocks and some are angular. They vary in size from 2.5–4.5 inches across at the narrow side. The only worked surface as a rule is a pit on one or both sides of the stone, and sometimes two pits appear close together on one or both sides of the stone. These pits are three-quarters to an inch across and from one-quarter to one-half inch deep. They are usually round at the bottom, but an occasional specimen will have a conical-shaped pit with an almost pointed bottom. Some specimens have a very shallow pit amounting to little more than a round abrasion on the stone. Most of the pits are centrally located on the stone.

Steatite Sherds (Plate 35)

Small steatite sherds were found on several sites in the surface survey of the basin, and where the bulldozers had been clearing brush and had cut into a site several large fragments of steatite vessels were found. At the Gaston site, small steatite sherds were sometimes found during excavation of pottery levels or in the pits. The largest specimens were located after the bulldozer had scraped off the black midden accumulation on the site down to the yellow sand level. In following the bulldozer, several large sherds were found in this yellow sand. One fragment (Plate 35a) had a cross-hatched design incised on the interior near the rim of the vessel.

Description of Objects of Clay

Clay Pipes and Fragments (Plate 36c–h)

A variety of clay pipes and fragments were found at the Gaston site. The fragments indicate that the position of the bowl on the stem varied from a straight line to a slight curve of the bowl from the stem. One pipe has an expanded bowl straight in line with the stem (Plate 36c, bottom). The surface finish of the pipes varies from a hand-smoothed to a burnished surface. Stem shapes vary from those with parallel sides to ones with the stem tapering away from the bowl.

One stem is square (Plate 36f, top), and another has a shoulder around the end of the stem (Plate 36c, center, right). Some fragments have a series of bands extending around the pipe (Plate 36e). These bands were formed by fine rouletting, and are on fragments that are very highly polished and thin. These fragments are similar to ones found by Lewis Binford in a survey of the Nottoway and Meherrin rivers, and may possibly represent influence from that area during a late period. Discussion of the relationship of this pipe type is found in Chapter 6.

The paste characteristics of some fragments reveal they were probably made by the same potters who made Type II pottery, because they contain a high percentage of golden mica particles (Plate 36c, bottom; d right; and g). This may indicate influence from the Clarksville area, since sherds with this mica content were a popular type in that area.

The specimen in Plate 36g is interesting in that it has a crosshatch design surrounding the entire bowl.

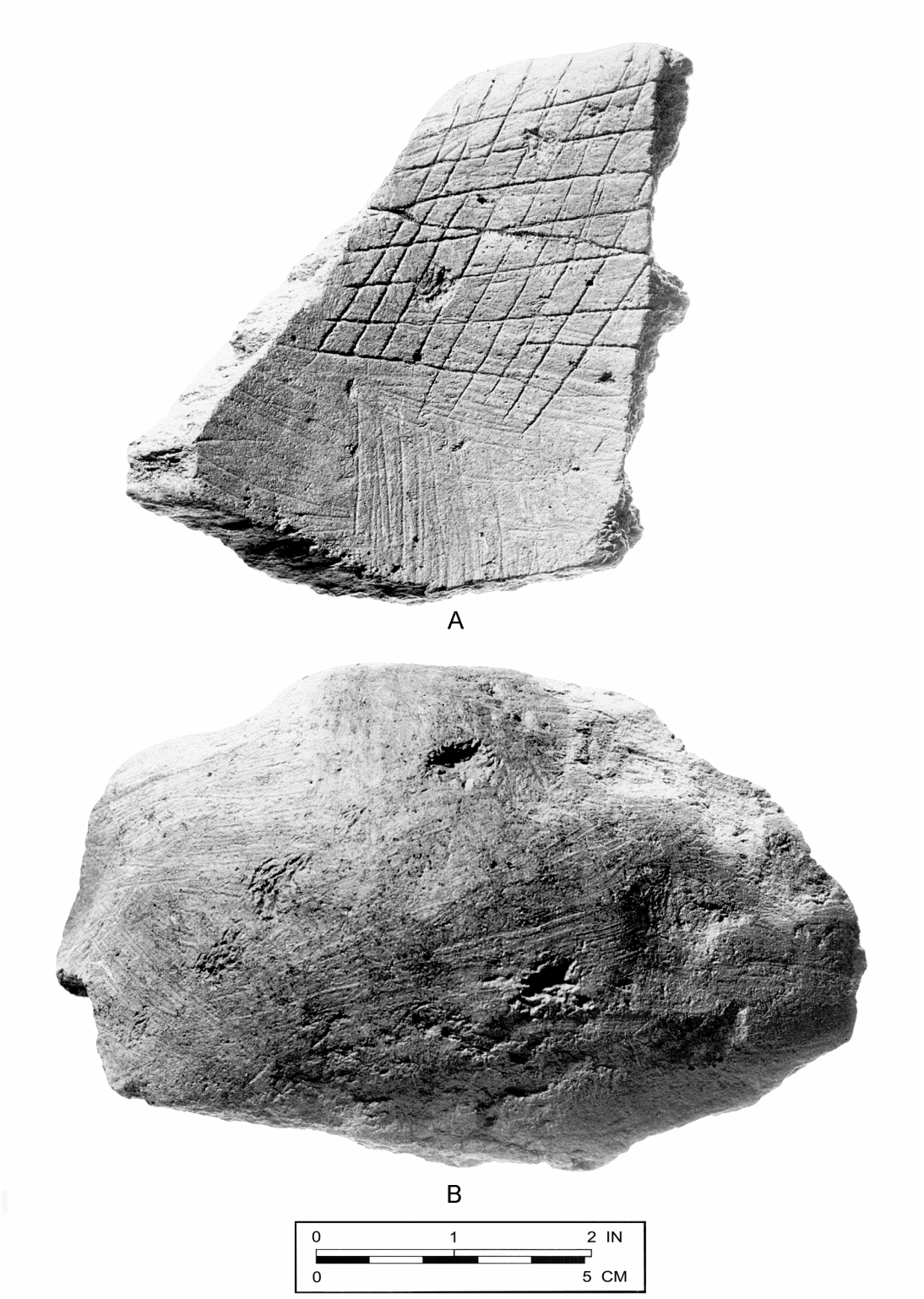


Plate 35. Steatite potsherds. Top: Interior of steatite rim sherd from the yellow subsoil sand layer at the Gaston site in square -40L60, showing crosshatched design (cat. no. 619p504). Bottom: Exterior of steatite rim sherd from the surface of site Np^{v}46, showing rodent gnawed areas (cat. no. 668p2).

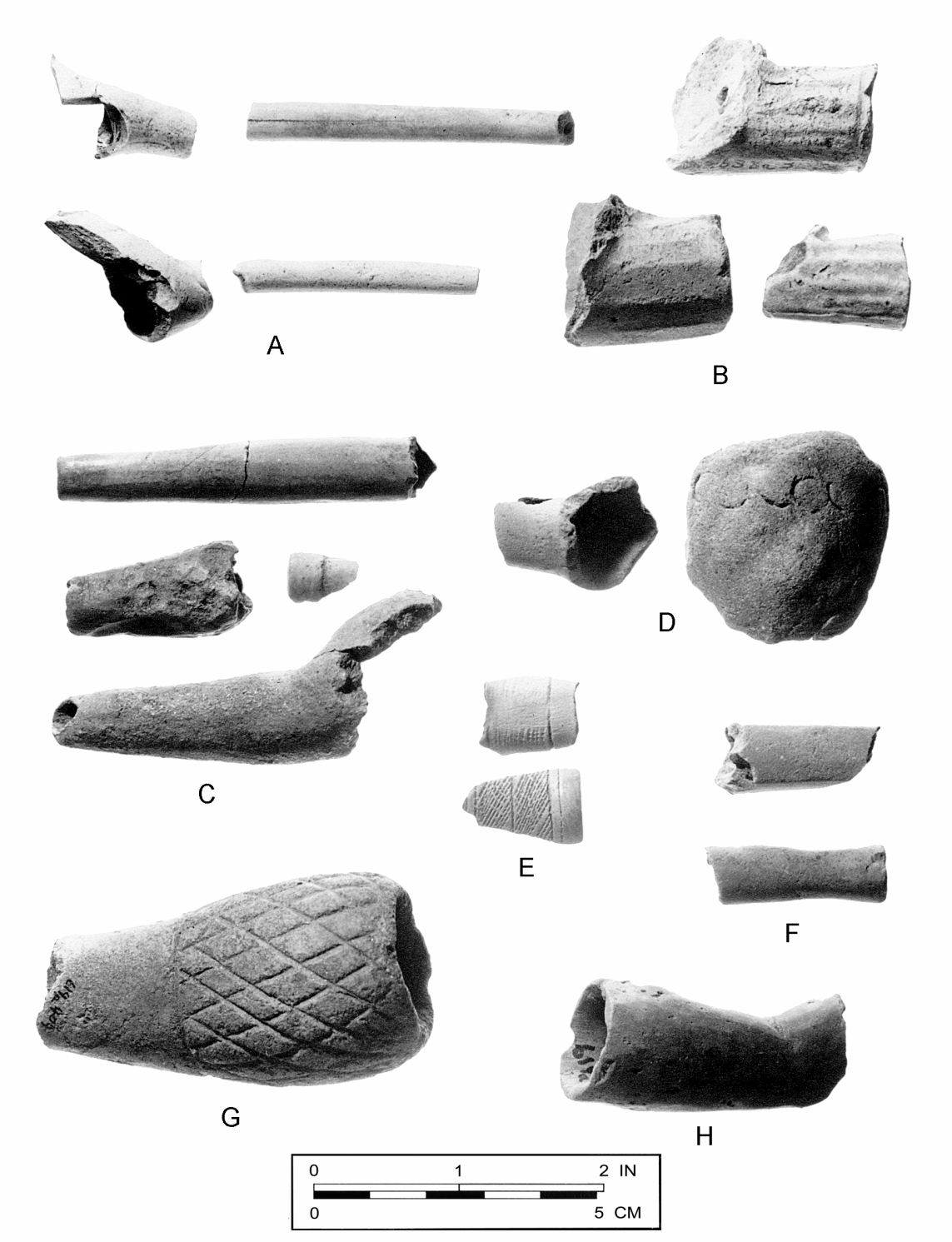


Plate 36. Clay tobacco pipes. A: European trade pipe stems and bowl fragments. B: Nineteenth-century stub-stemmed pipe fragments. C: Clay pipes of Indian manufacture. D through H: Clay tobacco pipes of Indian manufacture. See Appendix D for catalog numbers and provenience.

European Trade Pipe Fragments (Plate 36a)

Several European trade pipe stem and bowl fragments were found in the basin survey. Only one stem fragment was found at the Gaston site, and this was in the "slump off the bank" at square 60R5 where the first trench into the site was begun. The size of the stem hole is a diagnostic characteristic of time determination.[49] Holes in the trade pipe stems were measured, and found to date between AD 1710 and 1750.

Nineteenth-Century Clay Pipe Fragments (Plate 36b)

Several stems from nineteenth-century clay pipes were found during the surface survey or the basin. They are of a more recent occupation of the basin than the Indian period.

Description of Objects of Bone

Antler Celt (Plate 37e)

In chopping a small profile on the bank of site $Np^{v}2$ an antler celt was found. This celt was polished and sharpened near the cutting edge. The base was the base of the antler where it was fastened onto the skull. No other examples of such an artifact are known in related areas.

Worked Antler Tips (Plate 38f)

Several tips of antlers were found that had been removed from the main body of the antler by cutting a ring around it and breaking it. Some of these showed use on the pointed tip of the antler. Some other examples of worked antler and bone are shown in Plate 37a–c. Antler tips were probably used as arrowhead flaking tools.

Bone Needles (Plate 38a)

Two bone needle fragments were found in pits at the Gaston site. They appear to have been made from slivers of bird bone, and both had a drilled hole. They were one-quarter of an inch wide, very thin, and highly polished. They were not pointed, but flat and slightly rounded on the end. One was four inches long, but was broken at the hole.

Bone Fishhooks (Plate 38d)

Two examples of fishhooks were found. One was a completed hook an inch long. The other was a half of a hollow bone with an oval cut into it. This could then be cut to make one fishhook.

Bone Beamers (Plate 39c)

A few bone beamer fragments were found at the Gaston site. The two illustrated in Plate 39c are the head and distal ends of a wild turkey tibia. These were found together in Feature 38 and are probably the ends of the same beamer. The side of the bone being worked so thin probably resulted in its being broken.

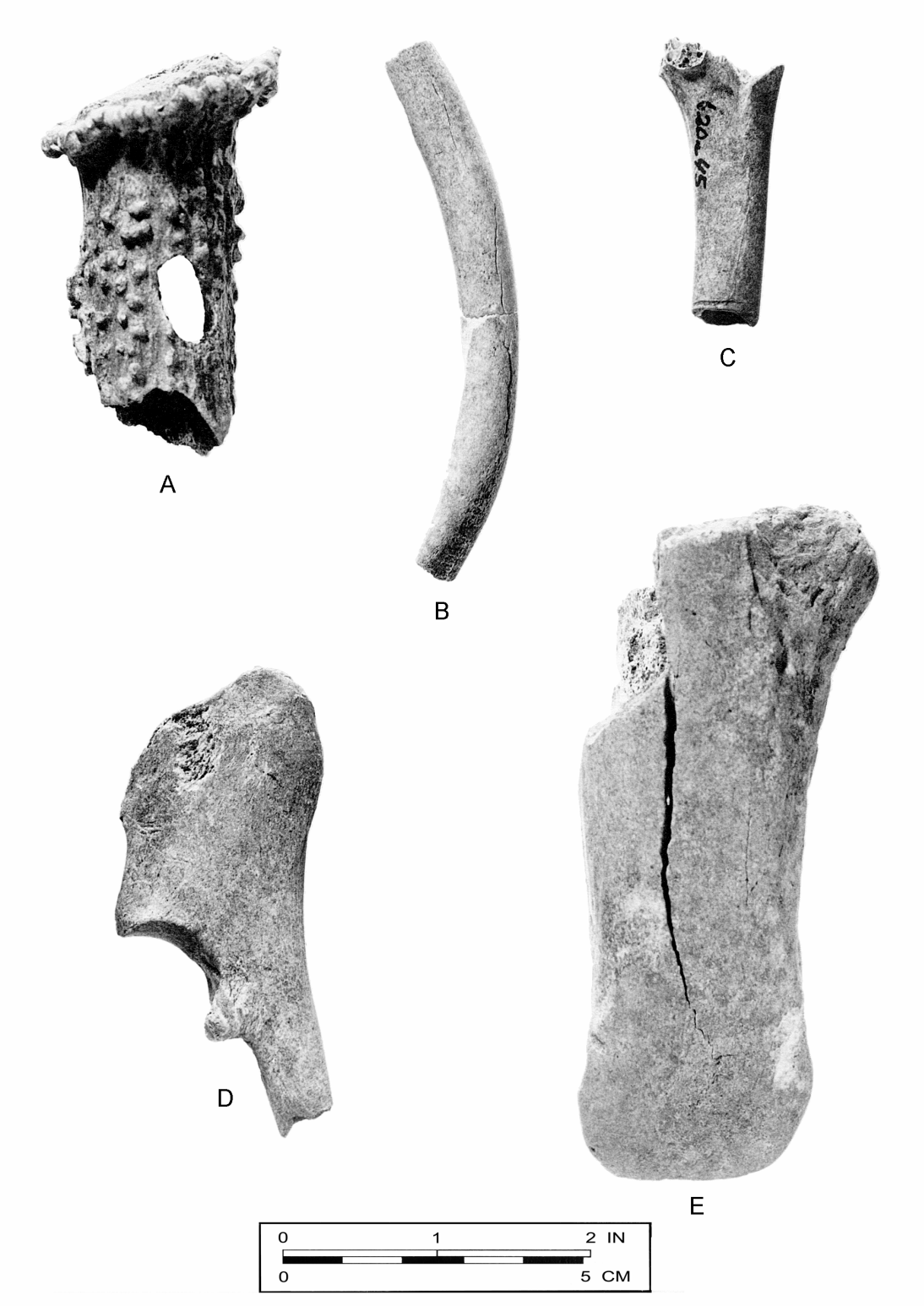


Plate 37. Bone artifacts. A through C: Worked antler and bone fragments. D: Bone tool with small worked graving tip. E: Antler celt with sharp cutting edge. See Appendix D for catalog numbers and provenience.

Plate 38. Bone awls, fishhooks, and worked antler. A: Bone needles. B: Bone awls. At left is the Procyonlotor (ulna) of a raccoon. C: Small bone awls. D: Left is a fishhook blank, and right is a completed fishhook. E: Worked bird bone projectile points. F: Worked antler tips. See Appendix D for catalog numbers and provenience.

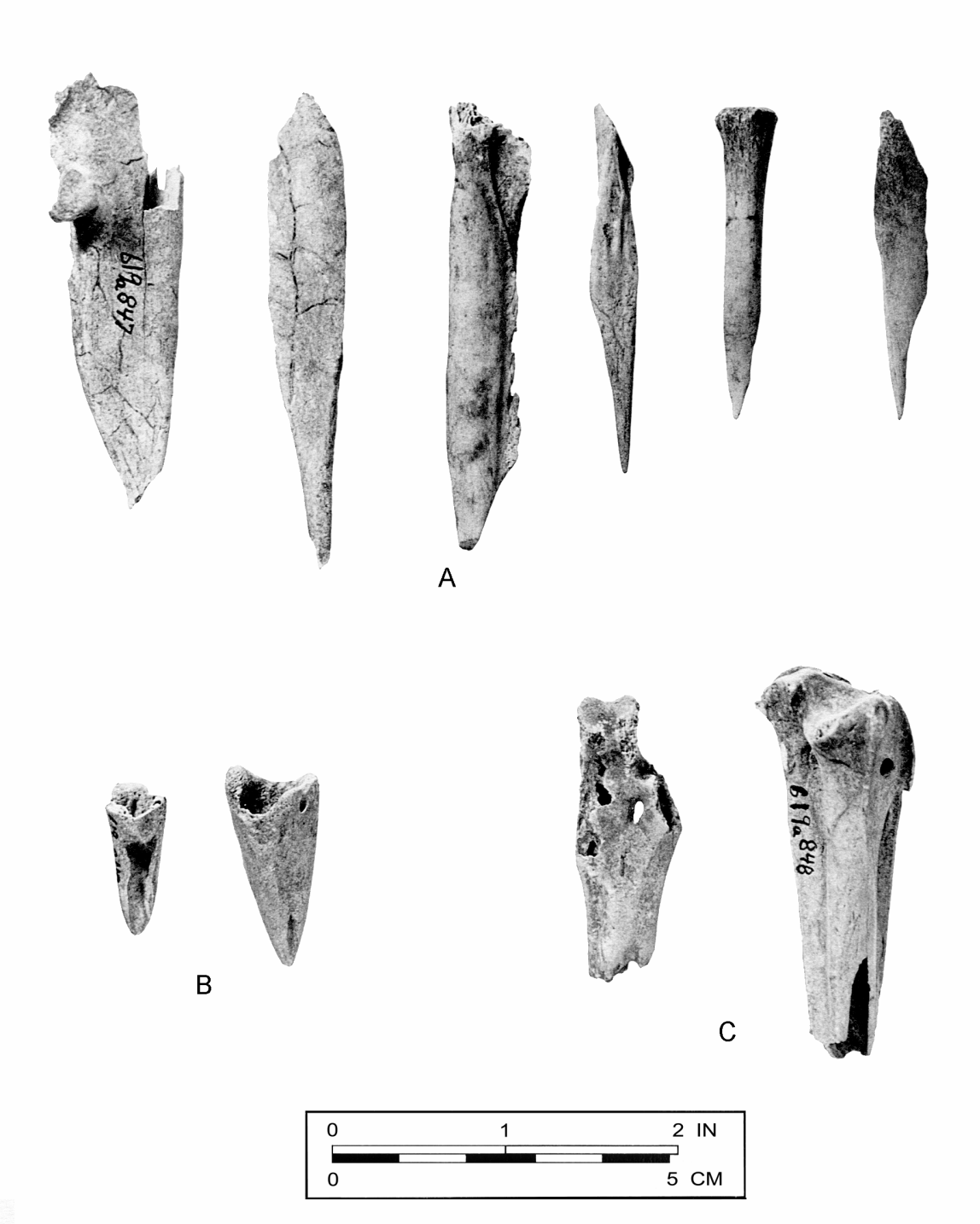


Plate 39. Bone awls, projectile points, and hide scrapers (beamers) from square 35R145, Feature 38 at the Gaston site. A: Bone awls (cat. no. 619a847). B, left: Bird bone projectile point. B, right: Deer toe projectile point (cat. no. 619a849). C: The head and distal ends of a wild turkey tibia, broken from a scraper (beamer) (cat. no. 619a846).

Bone Projectile Points (Plates 38e and 39b)

Several sharpened, hollowed-out deer toes were found in excavating the Gaston site. These were probably used as projectile points. Bones of other animals were also found with a sharpened point and hollow at the base and probably were used for the same purpose. The point on the left in Plate 39b is made of a bird bone. All these sharpened, hollowed, bone, or antler objects were classified as Bone Projectile Points.

Bone Awls (Plates 38 b, c and 39a)

Quite a few bone awls were found during excavation. Most seem to have been made from slivers of deer bone, but some are bird bone, and a few are from bones of other animals. Plate 38b is an awl made from the ulna of a raccoon. All are sharpened to a round or oval point, and many show signs of prolonged use, being very highly polished.

Bone from Refuse Pits

Large quantities of animal bone were recovered from pits during excavation. All fragments were saved, even though some pits contained many pounds of bones. This animal bone refuse was examined by Dr. F. S. Barkalow and his graduate students in Comparative Zoology at North Carolina State College, and their complete report is included in Appendix B.

Description of Ethno-Botanical and Miscellaneous Objects[50]

Shell (Plate 40a)

Quite a few pits at the Gaston site contained large quantities of shell. The large majority of these shells were freshwater mussels, but a few snail shells were also found. These freshwater animals must have been utilized for food to some considerable extent as evidenced by their frequent concentration on the surface of Indian sites and in refuse pits.

Daub Fragments (Plate 40b)

Fired daub fragments showing impressions of grass and other wattling were found during excavation of the Gaston site. These fragments were tabulated according to the number of fragments and their location. The presence of daub probably indicates plastered walls of dwellings. The comparatively small amount recovered, however, would indicate that perhaps not all buildings were plastered.

Fired Dirt Dauber Nests (Plate 40c)

Several of these were found while we were excavating pits on the Gaston site. Their presence would perhaps indicate dwellings in the vicinity.

Hickory Nut Shells (Plate 40d and f)

Several pits at the Gaston site contained charred hickory nut shells. Feature 32 contained a quantity of hickory nut shells and the cotyledon of hickory nuts. These are probably the pignut hickory. A charred hickory nut meat is shown in Plate 40f.

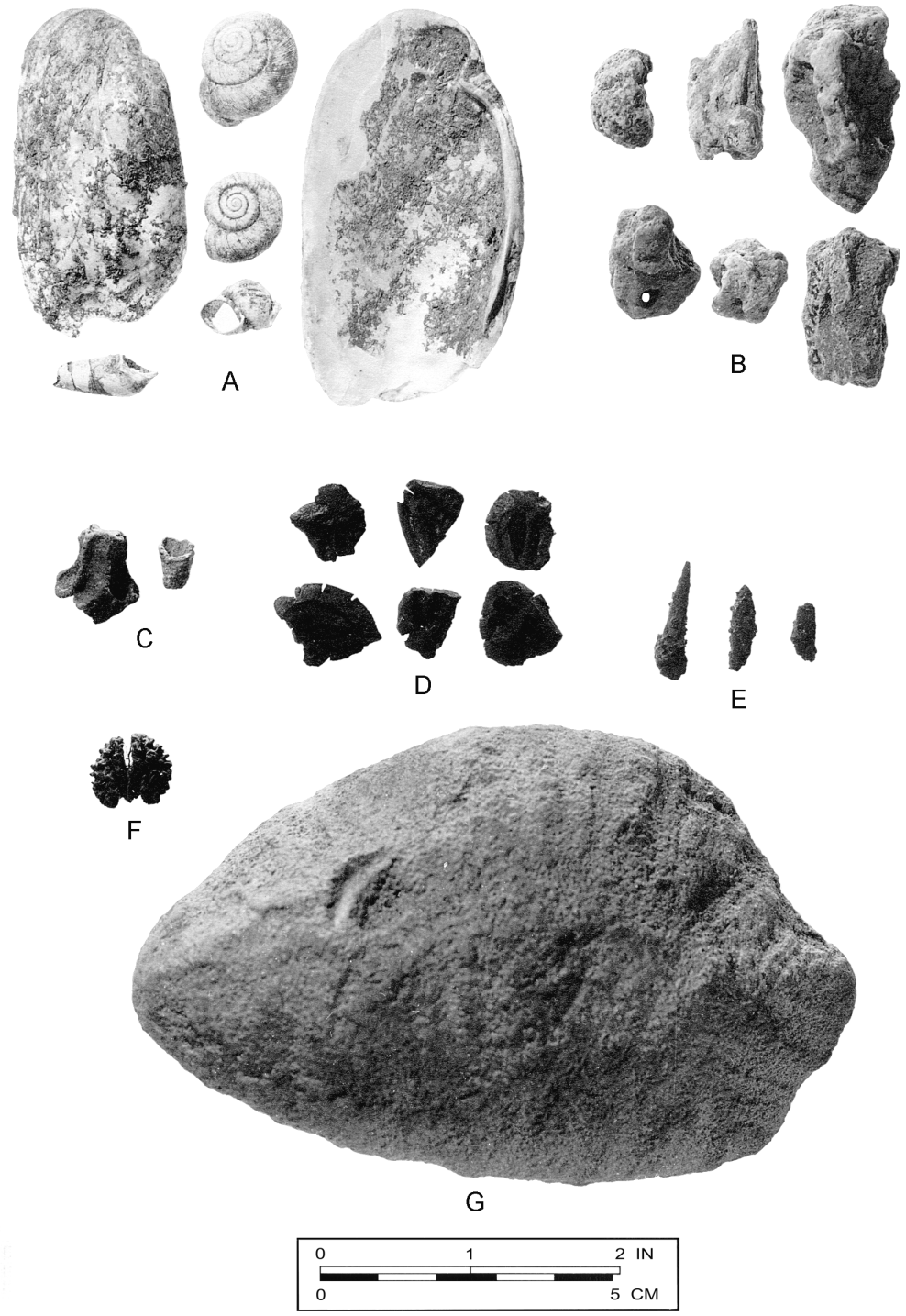


Plate 40. Shell, daub, red ochre, and ethno-botanical objects. A: Mussel and snail shells, found in large quantities on the Indian sites and in refuse pits. B: Fired clay daub fragments, indicating the presence of clay-plastered walls on structures. C: Fired dirt dauber nests, indicating the presence of structures. D: Charred hickory nut shells. E: Charred rachis of small pine cones. F: Charred hickory nut meat. G: Worked lump of red ochre, found on the Gaston site at a depth of 63 inches in square -60L60 (cat. no. 619m135). This was the deepest artifact found on the site. See Appendix D for catalog numbers and provenience.

Pine Cones (Plate 40e)

Feature 130 contained a quantity of charred pine cone scales, pine wood twigs, and oak wood fragments. The charred rachis of several small pine cones were also found (Plate 40e).

Wood Charcoal

Large quantities of wood charcoal were frequently found in pits obviously used as fire pits. These pits did not usually contain very much cultural material. Other pits used as refuse pits contained quantities of pottery and artifacts along with wood charcoal. Charcoal samples from several such pits were sent to the University of Michigan for radiocarbon analysis, and their report is presented in Chapter 6.

CHAPTER 4

THE INTERPRETIVE ANALYSIS OF THE AREAL SURVEY

Assumptions Underlying the Use of the Seriation Technique in the Pottery Analysis

In the archaeological survey of the Lower Mississippi Valley conducted by Phillips, Ford, and Griffin, the technique of pottery seriation was used by Ford in his analysis of the pottery types.[1] Seriation is a method devised to enable the archaeologist to place pottery types in a time sequence relative to one another. An explanation of the typological concept involved in pottery classification is given by Phillips, Ford, and Griffin, and they also provide a detailed explanation of the assumptions and methodology involved in the use of the seriation technique.[2] A summary from their report of the assumptions is quoted later in this section.

The seriation technique is based on the variability of the relative popularity of types through time. This variability is a result of changing cultural ideas through time. Just as in our culture the popularity of various types of clothing changes with time, so in Indian culture the popularity of pottery types changed through time. The popular dress type for a certain period of time is the "style." The seriation method places the pottery styles of the Indians in their relative position in time.

This is done on the assumption that these styles occur in a certain percentage relationship one to the other at any particular point in time, and that the relationship constantly changes and is never the same at any two periods in time. This assumes that when a new type is developed, or is introduced into the culture, its percentage of popularity is relatively small compared to the popularity of the prevailing style of the time. As time passes, and the new type gains in popularity, its percentage relationship will increase until it reaches its peak of popularity, at which time it will begin to decline. When this is plotted on a graph it is represented by a long unimodal curve.

When several types of similar objects are plotted graphically, they will constitute a series of overlapping single peak curves representing the popularity peaks of the various types through time. To illustrate this, I use the can opener in our own culture. The early can openers were of the "pump" variety that chewed open the lid can. A later type was the "twist" type that had a wing-nut type screw on the side that cut open the lid. A third type is fastened on the wall and is operated by a crank. If the relative popularity curves of these types were plotted, they would form three overlapping curves. If percentage figures were available for the relative popularity of these three types at one period in time, and the "pump" type constituted 70%, the "twist" type 20%, and the "crank" type 10%, then this particular relationship of percentages would have occurred at a relatively early period in our graph. If, on the other hand, the "crank" type constituted 80%, the "twist" type 15%, and the "pump" type only 5%, then it would indicate that this set of

percentage figures would be placed so that they fitted the graph somewhere near the late period.

This is what the archaeologist does when classifying pottery into types and subsequently constructing a seriation graph from the relative percentages of the types as they occur on different village sites.

Before a description of the procedure involved is undertaken, a summary of the assumptions underlying the seriation technique will be presented as taken from Phillips, Ford, and Griffin. These assumptions are as follows:

A. The distribution of prehistoric populations of the survey area was relatively stable.
B. The majority of the village sites were probably inhabited for a short time as compared to the entire time with which we are dealing.
C. The culture of the area in the main probably changed gradually rather than by means of mass migration from other areas.
D. If propositions A and C were true, the pottery types which we had defined would each show a single-peak popularity curve when measured through time, but the duration of such peaks, and the resulting curves, would vary from one type to another.
E. If D is true, then all the pottery-type frequency curves would be different in each part of the area on each time horizon, and a distinct pattern will appear when each part of the area is viewed through time.
F. Our sampling technique has been successful in getting samples representing continuous segments of time in all parts of the area and also in securing enough material from the sites which we will treat to give a more or less reliable picture of the material available on the surface.[3]

From these assumptions it should be evident that, to use the seriation technique, it is necessary to assume that the percentage relationship of types as plotted at any one period in time represents the relative popularity of those types at that time. In other words, it is assumed by the archaeologist that the percentage relationship that exists between the pottery types found on a site represents the popularity of these types among the people who occupied the site at a particular period of time.

Therefore, if the types represent the occupation of the site by different peoples at different times, then the seriation graph the archaeologist constructs is nothing more than the percentage of the types of sherds the archaeologist found on the site and could not possibly represent anything in terms of a culturally significant development of pottery types through time.

When the chance of migrations of whole groups into an area is present, or when the chance of a long occupation of some or many of the sites in the seriation is present, then the validity of the seriation tool is decreased. For this reason the assumptions as outlined by Phillips, Ford, and Griffin should be kept in mind by the archaeologist at all times when using the technique of seriation.

It should be remembered that the technique was developed with agricultural pottery-making cultures in mind, because it is assumed that there would be some homogeneity and cultural continuity in such cultures. If this factor is forgotten or ignored, and

percentage relationships between such things as projectile points and blades extending across cultural lines from Paleo-Indian to Historic times are worked into a seriation graph, and some cultural significance in terms of cultural continuity is said to be derived therefrom, then that is pushing the seriation technique far beyond its intended limits.

The Method of the Pottery Seriation Analysis of the Sites

With the foregoing assumptions in mind, the procedure was as follows. The percentages for the pottery types from each site were computed on a calculating machine and recorded on the analysis cards. These percentages were then plotted on a strip of one-half-inch wide graph paper as a bar. Rather than having the starting point for the bars at the left, a line in the center was used as the starting point, and the percentage was halved, and a half plotted on each side of the center line. Sufficient space was kept between the bars to prevent overlapping.

Each bar, representing a pottery type, was plotted with a different colored pencil to aid in visually identifying the pottery type represented by the bar. Each strip was labeled with the site number.

After all the sites containing 70 or more sherds were plotted on a strip, the strips were then placed one above the other and the bars arranged so that they form an ascending or descending pattern from bottom to top. In moving the bars in various positions in relation to one another, a pattern should appear if the types are valid as indicators of culture change through time. This pattern represents the single-peak curve, which on this type graph is shown as a bulge at the height of popularity for that particular type.

It is assumed that each strip, representing a site, is a picture of the popularity of the various types at a particular point in time when the site was occupied. Therefore, when the strips are arranged so that the majority of the types form a pattern, it is assumed that either the top or the bottom of the graph represents the older sites, and the other end represents the most recent sites. Which end is the oldest and which the most recent cannot be determined by the seriation method. This must be determined by the evidence from the stratigraphic excavations.

In the first pottery analysis, no pattern could be seen to appear as the strips were placed in various positions in relation to one another. The stratigraphic excavations showed only that simple-stamped pottery appeared in the top levels. I then conducted a second analysis using a different pottery typology and the pattern in Figure 16 was established.

Because the Gaston Simple Stamped type pottery appeared at one end of the seriation and was also found in the plowed soil primarily, it was assumed that this end of the graph represented the late period. This threw the Vincent types as the oldest and the Clement types as midway in time between the Vincent and the Gaston types. The stratigraphic evidence tended to support this conclusion. Figures 38 and 43 show the stratigraphic relationship of the various types at the Gaston and Thelma sites.

A point to remember in regard to these seriation graphs is that there are a number of variables involved, and the resulting graph may or may not represent a true picture of the pottery relationships. But, if the seriation is verified by stratigraphic excavation, then the assumption is that the graph is valid. It is valid, however, not as an exact picture of the relationship between sites, but as an indicator of relationships between pottery types.

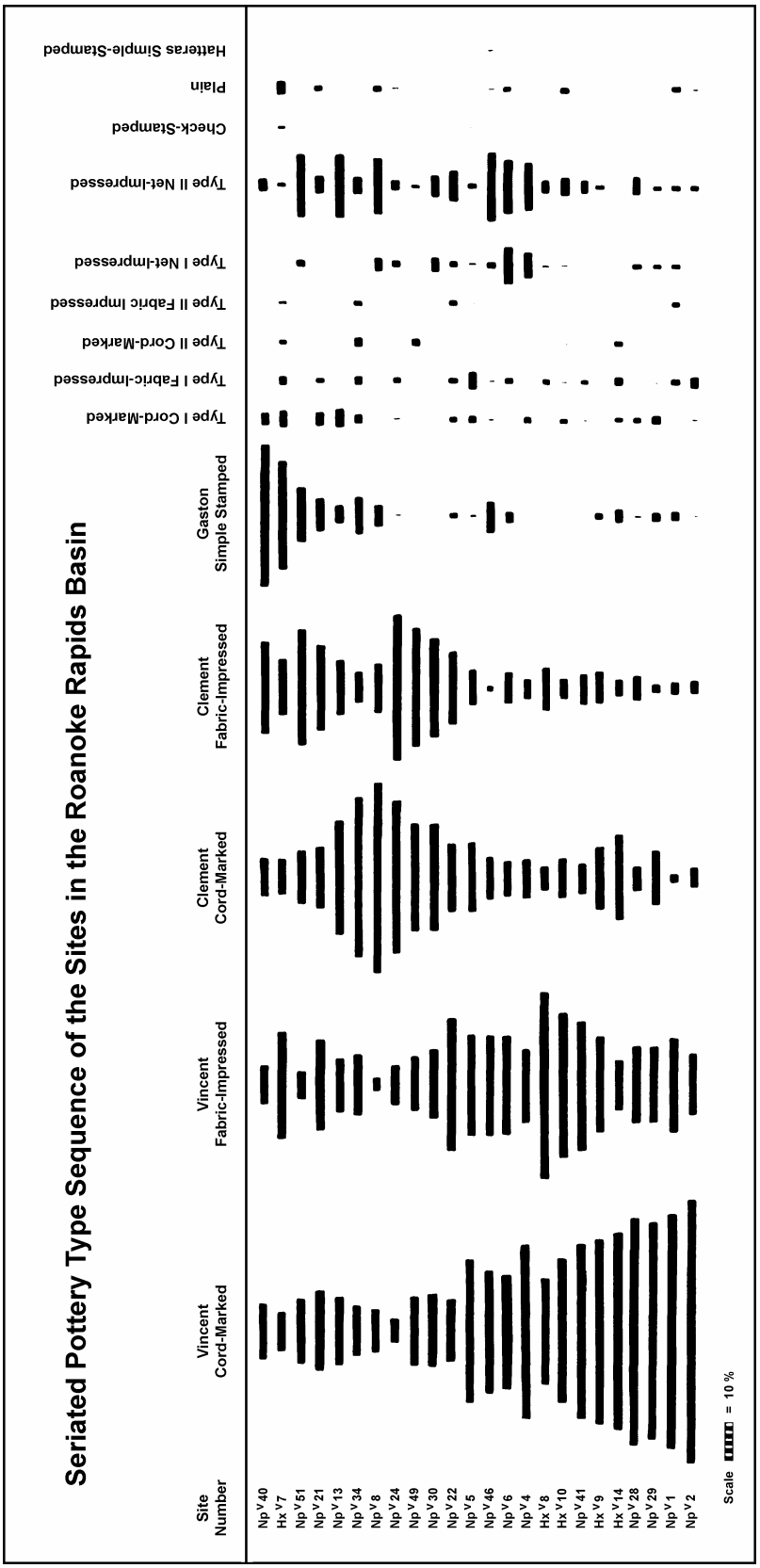


Figure 16. Seriated pottery type sequence of the sites in the Roanoke Rapids basin.

Therefore, discussion as to the relative position of two sites near each other in the seriation is fruitless. However, sites from the area near the top of the graph could be compared with sites near the center and at the bottom, but any closer comparison between sites would be pointless. In regard to these seriation graphs, the bulges are more significant than the tapered ends.[4]

A Summary of the Pottery Type Relationships from the Sites in the Surface Survey

The seriated pottery type sequence of the sites is shown in Figure 16. Sites with a high percentage of Vincent series pottery—the earliest pottery in the basin found at the western end—occur at the bottom of the seriated sequence. As the Vincent percentage decreases, the Clement bar percentages increase, along with the net types and Type II sherds. The Type II sherds resemble Coe's Roanoke series from the Clarksville area.

As the Clement series percentage declines, Gaston Simple Stamped increases. Along with this increase is an increase in the Type I Cord-marked percentage, the type that resembles Coe's Clarksville Cord-marked. Also associated with this time level is the small number of check-stamped sherds represented on Hx^{v}7, along with the Plain type. Site Np^{v}46 should perhaps have been seriated higher in the graph as indicated by the relatively high percentage of Gaston Simple Stamped pottery. The only sherd of Hatteras Simple Stamped (known to occur at the historic level) was found on this site; however, the high percentage of Vincent type material also occurring on the site caused the bar to be placed lower.

From Figure 16, it would appear that there was a developmental sequence of pottery types from an early popularity of the Vincent series to a later popularity of the fine sand-tempered Clement series along with the Net types, and these in turn were replaced in popularity by the Gaston series.

The Relationship Between the Artifacts and Pottery Types from the Areal Survey

The pottery seriation chart in Figure 16 was used as a basis for the analysis of the artifacts as seen in Table I. The sites that seriated near the top of this chart contain a high percentage of Gaston type pottery and have been tabulated in Table II. Of the 76 projectile points on these sites, all but five were of the triangular types. Twenty-seven Clarksville type points and 25 Roanoke points account for the majority of projectile points found on these sites.

Table III is a tabulation of the sites seriated below the Gaston pottery sites which contain a high percentage of Clement type pottery. Although the projectile point count drops considerably, the triangle types are about equally divided with the known pre-pottery stemmed types. No Clarksville type points were found on these sites.

Table IV shows the relationship between sites with a high percentage of Vincent type pottery and the artifacts on these sites. It is notable that again the Clarksville points are virtually absent, with only one being found on the Thelma site (Hx^{v}8). This site also has the widest variety of projectile point types, indicating a long occupation of the site by many different cultural groups.

Table I. Percentage Totals for the Sites in the Pottery Seriation.

Site	Sherd Count	Vincent Cord	Vincent Fabric	Clement Cord	Clement Fabric	Gaston Simple Stpd.	Type I Cord	Type I Fabric	Type II Cord	Type II Fabric	Net I	Net II	Check Stpd.	Plain	Hatteras Simple Stpd.	Total %
Np^{v}40	71	14.1	9.9	9.9	23.9	36.6	2.8	-	-	-	-	2.8	-	-	-	100
Hx^{v}7	618	9.9	27.5	9.2	14.5	27.5	4.0	1.9	0.7	0.3	-	0.7	0.5	3.2	-	100
Np^{v}51	70	17.1	7.1	14.3	30.0	14.3	-	-	-	-	1.4	15.8	-	-	-	100
Np^{v}21	117	21.4	23.9	16.2	22.2	7.7	2.6	0.9	-	-	-	4.2	-	0.9	-	100
Np^{v}13	125	18.4	14.4	29.6	13.6	4.0	4.0	-	-	-	-	16.0	-	-	-	100
Np^{v}34	99	13.1	16.2	42.4	8.1	9.1	2.0	2.0	2.0	1.0	-	4.1	-	-	-	100
Np^{v}8	72	11.1	2.8	50.0	12.5	5.6	-	-	-	-	2.8	13.9	-	1.3	-	100
Np^{v}24	969	6.2	10.3	40.5	37.7	0.1	0.2	0.9	-	0.2	1.5	2.1	-	0.3	-	100
Np^{v}49	71	18.3	14.1	28.2	31.0	-	-	-	1.4	-	-	7.0	-	-	-	100
Np^{v}30	99	19.2	18.2	28.3	26.3	-	-	-	-	-	3.0	5.0	-	-	-	100
Np^{v}22	295	15.9	34.9	16.9	18.6	1.0	1.0	1.0	-	1.4	1.8	7.5	-	-	-	100
Np^{v}5	336	37.8	26.5	17.9	9.2	0.6	1.8	3.9	-	0.3	0.3	1.4	0.3	-	-	100
Np^{v}41	260	46.5	33.5	7.7	7.7	-	0.4	1.2	-	-	-	3.0	-	-	-	100
Hx^{v}10	690	38.3	38.5	9.9	5.0	0.4	1.2	0.4	0.6	-	0.3	4.1	0.1	1.2	-	100
Hx^{v}8	1,476	27.8	49.3	6.4	10.9	0.4	-	1.6	-	-	0.5	2.6	-	0.5	-	100
Np^{v}46	884	31.5	26.7	11.3	1.7	7.7	0.6	0.5	-	-	1.4	18.0	-	0.5	0.1	100
Hx^{v}9	76	48.7	25.0	15.8	7.9	1.3	-	-	-	-	-	1.3	-	-	-	100
Hx^{v}14	91	52.7	13.2	22.0	4.4	3.3	1.1	2.2	1.1	-	-	-	-	-	-	100
Np^{v}6	112	30.4	25.9	8.9	8.0	2.7	-	0.9	-	-	8.9	13.4	-	0.9	-	100
Np^{v}4	125	46.4	19.2	10.4	4.8	-	1.6	-	-	-	5.6	12.0	-	-	-	100
Np^{v}28	602	60.6	19.6	6.4	6.4	0.3	1.0	0.3	-	-	0.8	4.3	-	0.3	-	100
Np^{v}29	161	57.1	20.5	13.7	1.9	1.9	1.9	1.9	0.6	-	-	1.2	1.2	1.2	-	100
Np^{v}1	96	62.5	25.0	2.2	3.1	2.2	-	1.0	-	1.0	1.0	1.0	-	1.0	-	100
Np^{v}2	636	70.1	15.7	5.2	3.0	0.5	0.6	2.5	0.8	-	0.3	1.1	-	0.2	-	100
Total	8,151															

It is interesting to note that eight of the nine Thelma points are associated with the Clement-Vincent pottery period. An increase in the Halifax type projectile point is also evident, and if this type had not been found in a very old pre-pottery context, it might be concluded that the Halifax projectile points were associated with Vincent type pottery. Erosion had evidently revealed more of the deeper cultural deposits on these Vincent sites than on the Clement-Gaston sites. It should also be remembered that there are almost twice as many sites with Vincent pottery as there are those with Gaston and Clement types combined.

The significant information revealed by these three tables is that there is a definite association between the Clarksville type points and the Gaston type pottery. Eliminating the projectile points that are definitely assigned to pre-pottery contexts as a result of their being found in stratified layers, it appears that the triangle Roanoke projectile point was the major type used during the Vincent–Clement–Gaston occupation of the basin or, in other words, during pottery-making times.

The above conclusions are further illustrated in Table V. This table is composed of sites that were not included in the pottery seriation chart because they had less than 70 sherds. They are also sites that contain more than two projectile points. All of these sites contain a majority of Vincent–Clement type pottery, with the exception of Np^{v}45

Table II. Artifacts from Sites Having High Percentage of Gaston Pottery.

Artifact Type	Site Np^{v}40	Hx^{v}7	Np^{v}51	Np^{v}21	Total
Projectile Points					
Clarksville	-	27	-	-	27
Roanoke	2	22	-	1	25
Large Triangle	1	13	-	2	16
Crude Triangle	1	2	-	-	3
Thelma	-	1	-	-	1
Small Savannah River	-	-	-	-	-
Large Savannah River	-	1	-	-	1
Halifax	-	-	-	-	-
Guilford	-	1	-	-	1
Morrow Mountain	-	-	-	-	-
Small Oval Blade	-	-	-	-	-
Large Oval Blade	-	-	-	-	-
Other	-	2	-	-	2
Sub-Total	4	69	0	3	76
Objects of Stone					
Abraded Stones	-	9	-	1	10
Pecked Stones	1	5	-	-	6
Center Pecked Stones	-	1	-	-	1
Pitted Stones	-	1	-	-	1
Steatite Sherds	1	6	-	-	7
Celts and Fragments	-	2	-	-	2
Drilled Stone Gorgets	-	-	-	-	0
Scrapers	-	-	-	-	0
Pecked Atlatl Fragments	-	1	-	-	1
Mortars	-	1	-	-	1
Chipped Stone Axes	-	-	-	-	0
Pecked Stone Rings	-	-	-	-	0
Stone Pipe Fragments	-	-	-	-	0
Objects of Clay					
Clay Pipes and Fragments	1	1	-	1	3
Daub Fragments	-	-	-	1	1
European Trade Pipe Fragments	-	-	-	-	0
Colonial Clay Pipe Fragments	-	1	-	-	1
Total	7	97	0	6	110

which contains 50% Gaston type pottery, and Np^{v}60 which contains 18% Gaston type sherds. These two sites are also the only ones in this group of sites that have Clarksville type projectile points, again illustrating the association of Gaston pottery with Clarksville points.

The projectile point type with the largest total from these sites is the Roanoke point, indicating again the association of this type with the Vincent–Clement culture period. Analysis of the excavations conducted at the Gaston and Thelma sites reveal further the relationships found in this analysis of the basin survey data.

Table III. Artifacts from Sites Having High Percentage of Clement Pottery.

Artifact Type	Site Np^{v}13	Np^{v}34	Np^{v}8	Np^{v}24	Np^{v}49	Np^{v}30	Total
Projectile Points							
Clarksville	-	-	-	-	-	-	0
Roanoke	-	1	-	-	-	-	1
Large Triangle	-	-	-	-	-	-	0
Crude Triangle	-	-	-	-	-	2	2
Thelma	1	-	1	-	-	1	3
Small Savannah River	-	-	-	-	-	1	1
Large Savannah River	-	-	-	-	-	1	1
Halifax	-	-	-	-	-	-	0
Guilford	-	-	-	-	-	-	0
Morrow Mountain	-	-	1	-	-	-	1
Small Oval Blade	1	-	-	-	-	-	1
Large Oval Blade	-	-	-	-	-	1	1
Other	-	1	1	-	-	1	3
Sub-Total	2	2	3	0	0	7	14
Objects of Stone							
Abraded Stones	-	-	-	-	-	-	0
Pecked Stones	2	-	-	1	-	-	3
Center Pecked Stones	-	-	-	-	-	-	0
Pitted Stones	1	-	-	-	-	-	1
Steatite Sherds	2	-	-	-	-	1	3
Celts	-	-	-	-	-	-	0
Drilled Gorgets	-	-	-	-	-	-	0
Scrapers	-	-	-	-	-	-	0
Pecked Atlatls	-	-	-	-	-	-	0
Mortars	-	-	-	-	-	-	0
Chipped Axes	-	-	-	-	-	1	1
Stone Rings	-	-	-	-	-	-	0
Objects of Clay							
Clay Pipes	-	-	-	-	-	-	0
Daub Fragments	-	-	-	-	-	-	0
Trade Pipes	-	-	7	-	-	-	7
Colonial Pipes	-	-	-	-	-	-	0
Total	7	2	10	1	0	9	29

Table VI shows the relationship between the projectile point types and the stone material used. This table reveals that the most popular material for the Clarksville projectile points was white quartz. The material preferred for the Roanoke points was white quartz and slate. The popular Halifax material was white quartz. This material was available locally, which may account for its preference for projectile points in cultures separated by thousands of years.

A comparison between known pre-pottery projectile point types with pottery seriation is absurd. However, the presence of a wide variety of projectile point types on a site,

Table IV. Artifacts from Sites Having High Percentage of Vincent Pottery.

Artifact Type	Np^v 22	Np^v 5	Np^v 46	Np^v 4	Hx^v 8	Hx^v 10	Np^v 41	Hx^v 9	Hx^v 14	Np^v 28	Np^v 29	Np^v 1	Np^v 2	Total
Projectile Points														
Clarksville	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Roanoke	-	-	3	-	5	-	1	-	1	-	4	-	-	14
Large Triangle	-	-	4	-	7	-	1	-	-	-	-	-	-	12
Crude Triangle	-	-	-	-	1	-	-	-	-	1	-	-	-	2
Thelma	-	-	-	-	4	-	-	-	-	1	-	-	-	5
Small Savannah River	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Large Savannah River	-	-	-	-	1	1	-	-	-	-	2	-	-	4
Halifax	1	-	1	-	7	1	-	-	-	2	2	-	1	15
Guilford	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Morrow Mountain	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Small Oval Blade	-	-	-	-	5	-	-	-	-	-	-	-	1	6
Large Oval Blade	-	-	-	-	1	-	-	-	-	-	2	-	-	3
Other	1	-	-	-	4	-	-	-	-	-	3	-	1	9
Sub-Total	2	0	8	0	38	2	2	0	1	4	13	-	3	73
Objects of Stone														
Abraded Stones	-	-	-	-	-	1	-	-	-	-	-	-	-	1
Pecked Stones	2	-	-	-	-	-	-	-	1	-	1	-	-	4
Center Pecked Stones	-	-	-	-	-	2	-	-	-	-	-	-	-	2
Pitted Stones	-	-	-	-	-	-	-	1	-	1	-	-	-	1
Steatite Sherds	-	-	5	-	-	-	-	-	1	-	3	-	-	10
Celts	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Drilled Gorgets	-	-	1	-	1	-	-	-	-	-	-	-	-	2
Scrapers	-	-	-	-	1	-	-	-	-	-	-	-	-	1
Pecked Atlatls	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Mortars	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Stone Rings	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Stone Pipes	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Objects of Clay														
Clay Pipes	-	-	-	-	-	-	-	-	-	-	1	-	-	1
Daub Fgragments	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Trade Pipes	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Colonial Pipes	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Objects of Bone														
Antler Celts (from bank profile)	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Total	4	1	14	1	41	5	2	1	3	5	18	0	4	99

indicating the occupation of the site by a number of cultural groups, is significant. Sites Hx^v7, Hx^v8, Np^v20, Np^v29, and Np^v30 are such sites (Tables II–V). Hx^v7 and Hx^v8 were excavated, and the pre-pottery context of several of these points was verified at Hx^v7, the Gaston site. The oldest type point found during the survey was found on site Np^v2 and is described under the category "Other."

Table V. Artifacts from Vincent–Clement Sites Not in the Pottery Seriation Chart.*

Artifact Type	Np^v 11	Np^v 12	Np^v 14	Np^v 15	Np^v 17	Np^v 18	Np^v 20	Np^v 36	Np^v 45**	Np^v 56	Np^v 59	Np^v 60***	Total
Projectile Points													
Clarksville	-	-	-	-	-	-	-	-	2	-	-	1	3
Roanoke	1	1	1	2	3	2	-	3	2	5	-	3	23
Large Triangle	-	-	-	2	-	-	-	-	-	4	-	-	6
Crude Triangle	2	-	-	-	-	-	-	-	-	2	-	-	4
Thelma	-	-	1	-	-	2	1	-	-	-	-	-	4
Small Savannah	-	-	1	-	-	-	-	-	-	-	-	-	1
Large Savannah	-	-	-	2	-	-	2	-	-	-	2	-	6
Halifax	-	1	-	-	-	-	2	-	-	-	-	-	3
Guilford	-	1	-	-	-	-	3	-	-	-	-	-	4
Morrow Mountain	-	1	-	1	-	-	-	-	-	-	-	-	2
Small Oval Blade	-	-	-	-	-	-	3	-	-	-	2	-	5
Large Oval Blade	-	-	-	-	-	-	3	-	-	-	2	-	5
Other	-	-	-	-	-	1	1	-	-	-	-	-	2
Sub-Total	3	4	3	7	3	5	15	3	4	11	6	4	68
Objects of Stone													
Abraded Stones	-	-	-	-	-	-	-	-	-	1	-	-	1
Pecked Stones	2	-	-	-	-	-	-	-	-	-	-	-	2
Center Pecked Stones	-	-	-	-	-	-	1	-	-	1	-	-	2
Pitted Stones	-	-	-	-	1	-	1	-	-	-	-	-	2
Steatite Sherds	-	-	-	-	-	-	-	-	-	-	-	-	0
Celts	-	-	-	-	1	-	-	-	-	-	-	-	1
Drilled Gorgets	-	-	-	-	-	-	-	-	-	1	-	-	1
Scrapers	-	-	-	-	-	-	-	-	-	-	-	-	0
Pecked Atlatls	-	-	-	-	-	-	-	-	-	-	-	-	0
Mortars	-	-	-	-	-	-	-	-	-	-	-	-	0
Stone Rings	-	-	-	-	-	-	-	-	-	-	-	-	0
Stone Pipes	-	-	-	-	-	-	-	-	-	-	-	-	0
Objects of Clay													
Clay Pipes	-	-	-	-	-	-	-	-	-	-	-	-	0
Daub Fragments	-	-	-	-	-	-	-	-	-	-	-	-	0
Trade Pipes	-	-	-	-	-	-	-	-	-	-	-	-	0
Colonial Pipes	-	-	-	-	-	-	-	-	-	-	-	-	0
Total	5	4	3	7	5	5	17	3	4	14	6	4	77

* Sites included in this table are those having less than 70 sherds, and more than two projectile points.
** 50% of the pottery from this site was Gaston.
*** 18% of the pottery from this site was Gaston.

The Interpretive Summary of the Areal Survey

The basin survey revealed the presence of 73 concentrations of cultural material in the area to be flooded. Analysis of the pottery material revealed 14 pottery types representing three major periods of pottery style changes. These three series, from oldest to most recent, are: the Vincent, which represents the earliest popular pottery style; the

Clement, which replaced the Vincent in popularity; and the Gaston, which was the latest popular style, and which shows considerable influence from the Siouan pottery tradition further into the Piedmont.

Stone projectile points collected during the survey represent a variety of known and unknown culture complexes dating from perhaps 10,000 years ago to within the historic period. There is a definite correlation between the Clarksville type projectile point and the Gaston type pottery, and between the Roanoke point and the Vincent–Clement pottery.

Typologically, the Gaston pottery is related to pottery used by known historic groups; therefore, the Gaston occupation of the basin is thought to have taken place between AD 1500 and AD 1700.[5] This Gaston ceramic material is related to the earlier Clement series and is thought to have developed out of a Vincent–Clement ceramic tradition. The Vincent–Clement pottery could be placed in the Roanoke culture period on the basis of its relation to the Clarksville area, and is thought to have extended from the first introduction of pottery into the basin around AD 500 to about AD 1500, when the Gaston types began to develop out of this Roanoke ceramic tradition.

A number of projectile points known to have occurred in pre-ceramic contexts were also found in the survey. These include the Guilford, Halifax, Savannah River, and Morrow Mountain types. Several sites contained a number of these pre-ceramic types, indicating occupation of the site by cultural groups over a long period of time. Sites $Hx^{v}7$, $Hx^{v}8$, $Np^{v}30$, $Np^{v}29$, and $Np^{v}20$ are such sites (Tables II–V).

Verification of the pre-ceramic context of a number or these types was found on the Gaston site and is reported in Chapter 5.

Table VI. Projectile Points from Surface Survey of Sites by the Type of Stone.*

			Material				
Projectile Point Type	Slate	Quartzite	White Quartz	Crystal Quartz	Felsite	Diorite	Total
Clarksville	5	-	27	4	-	-	36
Roanoke	22	5	38	3	1	-	69
Large Triangle	15	7	18	-	-	-	40
Crude Triangle	2	-	9	1	-	-	12
Thelma	6	1	5	-	1	-	13
Small Savannah River	1	1	-	-	1	-	3
Large Savannah River	2	6	3	-	1	2	14
Halifax	1	3	15	-	-	-	19
Guilford	3	3	-	-	-	-	6
Morrow Mountain	3	-	4	-	-	-	7
Small Oval Blade	4	-	8	-	-	-	12
Large Oval Blade	4	3	3	-	1	-	11
Other	6	3	4	-	2	-	15
Total	74	32	134	8	7	2	257

*This table represents the total for all sites in the survey.

CHAPTER 5

EXCAVATION AT THE GASTON SITE

Description of the Gaston Site

One mile upstream from $Hx^{v}6$, in a large bottomland enclosed on the upstream and downstream sides by a high ridge of land extending to the river's edge, is the Gaston site ($Hx^{v}7$) (Plate 41a). The site is located near the downstream side of a ridge of rock, where the elevation above the river is the highest, being about 30 feet. There is a declining slope away from the site toward the downstream side and toward the foot of the basin rim at the side away from the river. At this lowest point near the base of the basin rim, there is a swamp, and it is here that the Seaboard Airline Railroad fill and track parallel the river.

There is a small island and some canal locks near the bank which represent what is left of a portage canal which was used to bypass the rapids north of the site (Plate 41b). See Map 7 for Lewis Binford's drawing of the Gaston site.

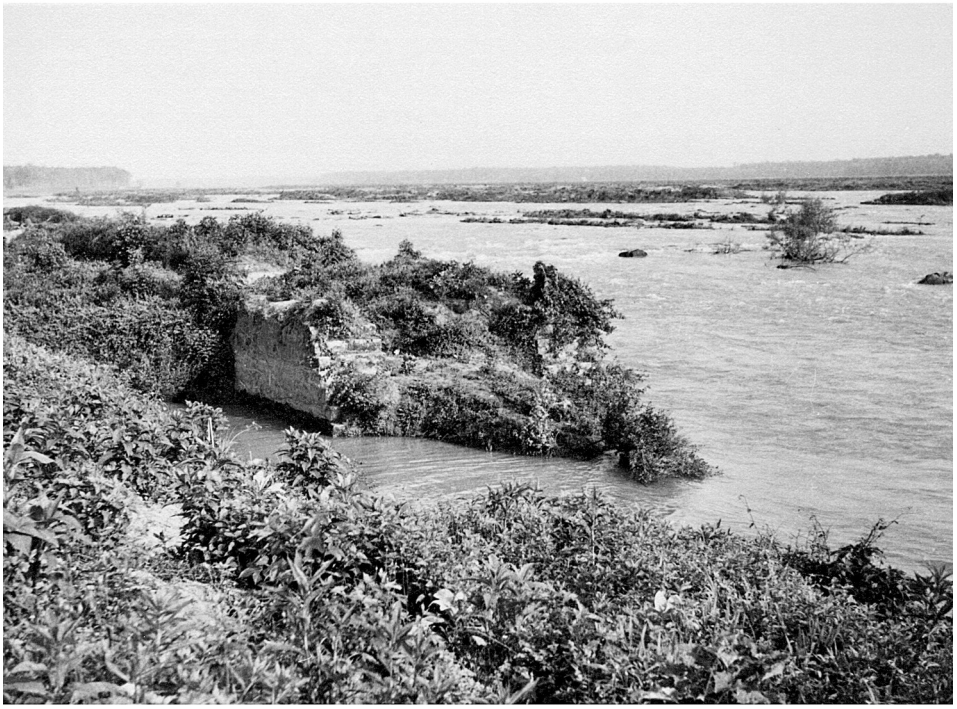
The site extends from the ridge downstream for about 200 yards and possibly more, and for about 100 yards between the river and the swamp. Part of the site was undoubtedly cut away when the canal was constructed, causing the present river position to be somewhat further into the site than previously was the case.

The soil is composed of river-deposited sand colored black near the surface by the midden and humus of occupation. The sand underneath this two-foot midden mantle is yellow. The presence of river deposited sand at an elevation of 30 feet above the present level of the river is evidence of the magnitude of some of the floods which must have inundated the basin in the past. The presence of the ridge of rock above the site is the reason the deposited sand has managed to escape the meanderings and floods of the Roanoke. On the downstream side of these ridges of rock the elevation of the bottomland above the river is invariably higher than elsewhere throughout the basin, and at this site it is higher than usual, thus affording an excellent village and camp site. Another influence on the use of this site is, if the river is used for transportation, boats must be portaged around the rapids, thus funneling all river travelers over the site. The site had been cultivated and there was little bulldozer disturbance.

A wider variety of cultural material was found on this site than on many of the others so this, plus the geological factors already mentioned, resulted in this site being selected for excavation.

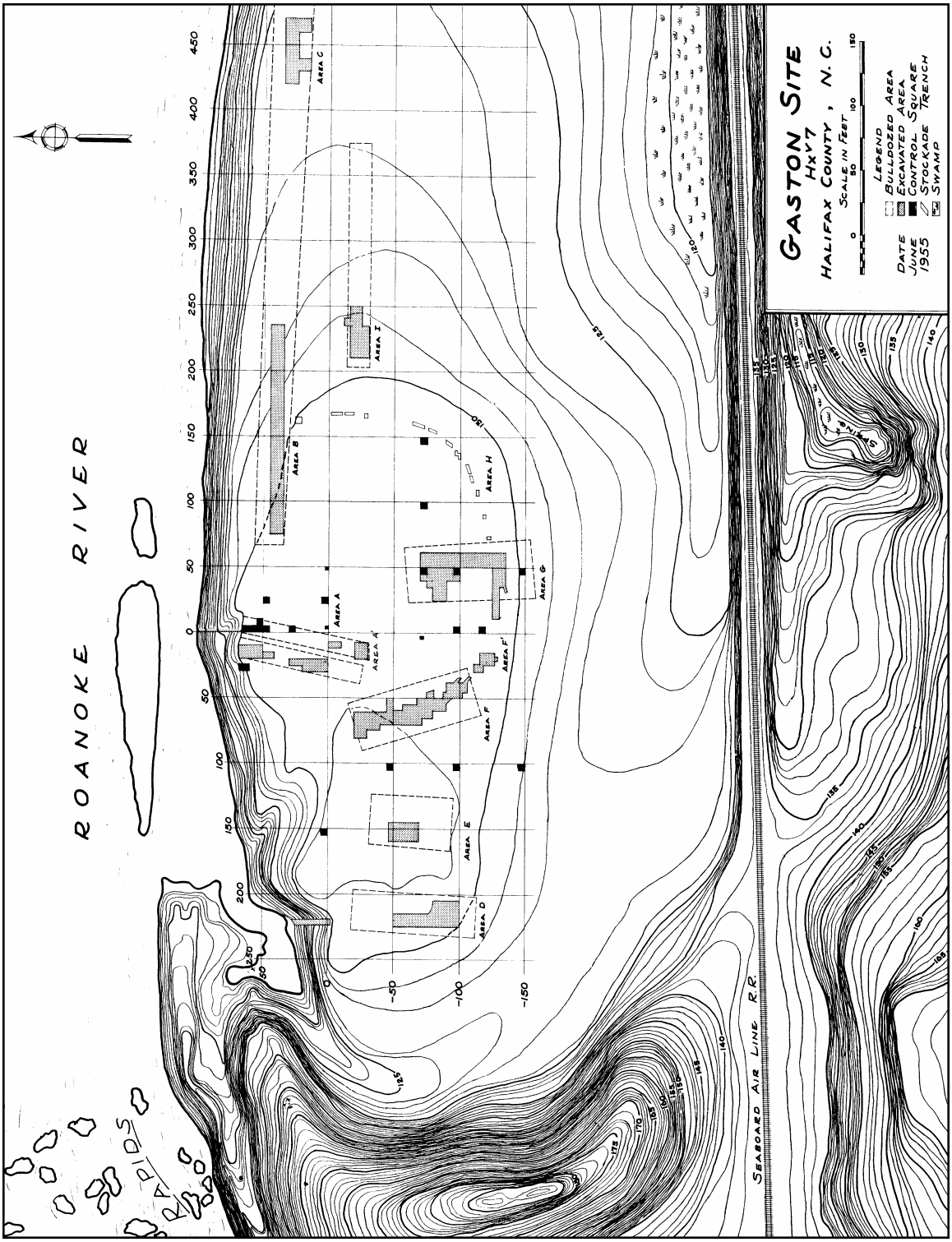
The purpose of the excavation was to determine whether or not stratigraphy existed that would aid in further interpretation of the data collected through the survey of the basin. If stratigraphy or superposition of cultural material could be found, it would enable a more complete relative and absolute chronological determination of the cultures once occupying the basin, and give a reference point upon which to analyze the surface collections from the 73 sites.

a



b

Plate 41. A: The Gaston site looking west, showing the rapids to the right and the point of rock to the left that caused the stratification of the site by causing flood waters to swirl around it, dropping sand during floods. B: The rapids and canal lock looking west from the Gaston site.



Map 7. The Gaston site showing the bulldozed and excavated areas (drawn by Lewis Binford).

Pottery Control-Square Excavation Method at the Gaston Site

The first step in excavating this site was to survey it with a transit and establish a base line and a zero line. The base line ran east and west, and the zero line ran north and south. Stakes were driven along these lines every 25 feet.

The excavated squares and areas were numbered according to their position in relation to the base and zero lines. All squares to the north of the base line are plus (+) squares, and those to the south are minus (-) squares. All squares to the right of the zero line when facing north are R squares, and those to the left are L squares. Thus, the square designated -70L60 is 70 feet south of the base line and 60 feet left of the zero line. The right, south corner is used as the point from which to designate a square.[1]

An approach trench five feet wide was dug on the edge of the riverbank at the zero line to a depth of three feet. This was done for the purpose of determining the depth of the midden deposit on the site. The pottery-bearing midden depth at this point was 24 inches, and under this mantle of black midden was a light yellow sand. A few chips were found in this yellow sand, and further examination of the yellow sand was planned after control squares of the midden deposit were excavated.

It was found through excavation of this approach trench that a change in the color of the midden deposit could be detected at the bottom of the plowed soil level. This change varied from 8–11 inches depending upon how deep the bulldozers had disturbed the surface of the ground above the square. Because of this visible change in the soil color between the plowed and the undisturbed levels, all squares were excavated to this soil change in one unit and the remainder was excavated in six-inch levels.

The approach trench was continued for three five-foot squares along the zero line. The method of procedure follows.

All soil from all levels in the square was sifted in an 18×24-inch wheeled cart with a 3/8-inch mesh screen bottom. This cart was rolled rapidly back and forth on a frame. All bone, worked chips, projectile points, sherds, etc., were picked out of the sifter and placed in paper bags marked with the site number, square number, and level in inches.

When the midden deposit had been sifted in this manner, and the yellow sand was reached, it was troweled in order to reveal any pit outlines that intruded into the yellow sand. Their size and position were plotted on a plan of the square, and notes as to depth of pits, contents, and relationships were made on the plan. Pits were numbered, excavated, and sifted. A shovel was used in the pits until large fragments of bone or pottery began showing up in the screen. When artifacts were observed, a trowel was used to work more carefully around the objects. Feature excavation method is presented later.

Figure 17 shows the vertical profiles of the control squares at the Gaston site. Figure 18 illustrates some of the horizontal profiles of control squares, and others are illustrated on the charts showing the various areas cleared by the bulldozers.

The Method Used in Excavating with Bulldozers and Road Graders

After 20 five-foot squares were excavated at various intervals over the site, I felt that an adequate control sample had been made and what was needed then was a larger sample of the pits which intruded into the yellow sand at the bottom of the midden layer. For this purpose two road graders were brought to the site to remove the 24 inches of midden from a section of the site paralleling the river at the downstream end.

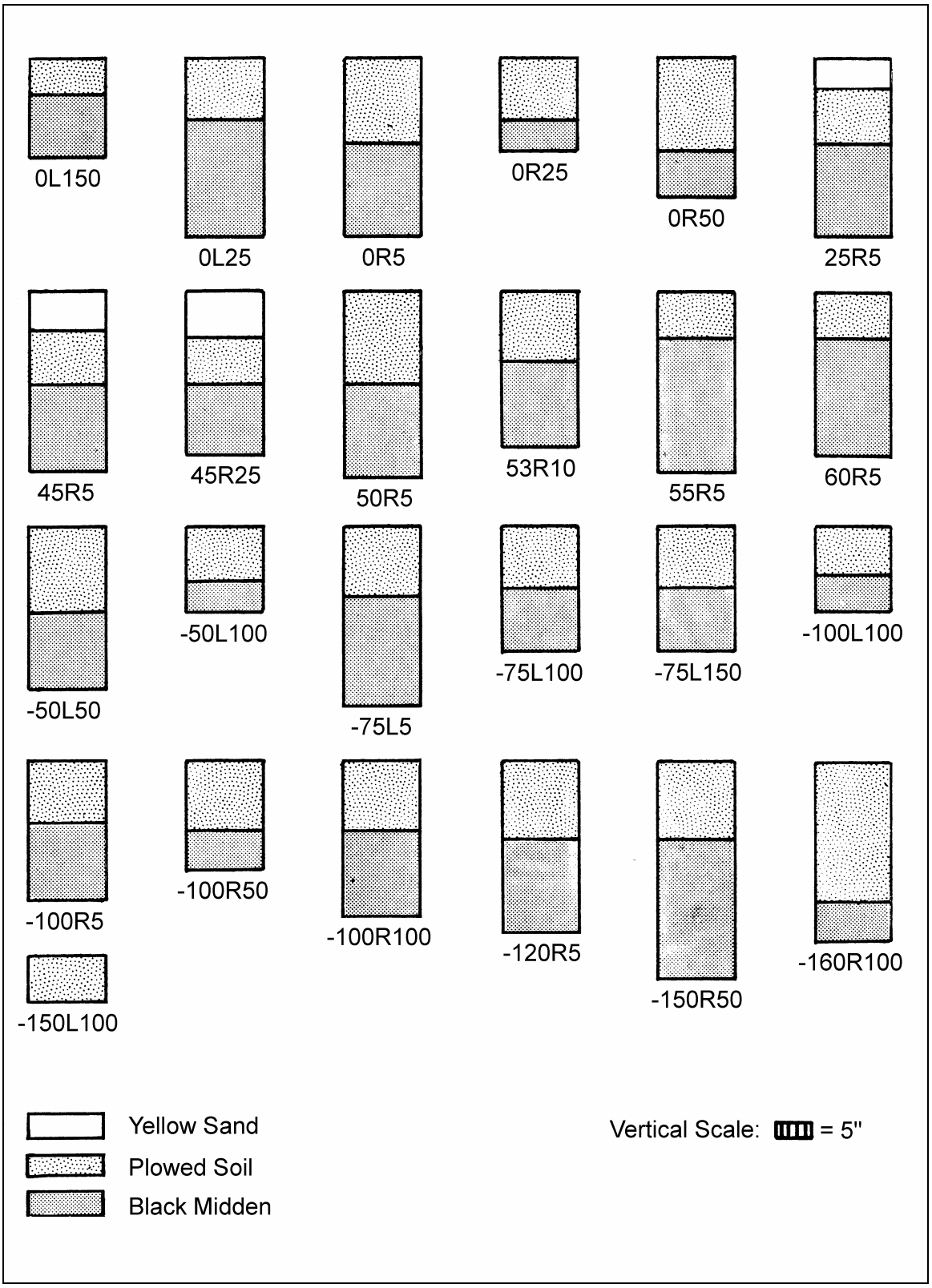


Figure 17. Control square profiles at the Gaston site.

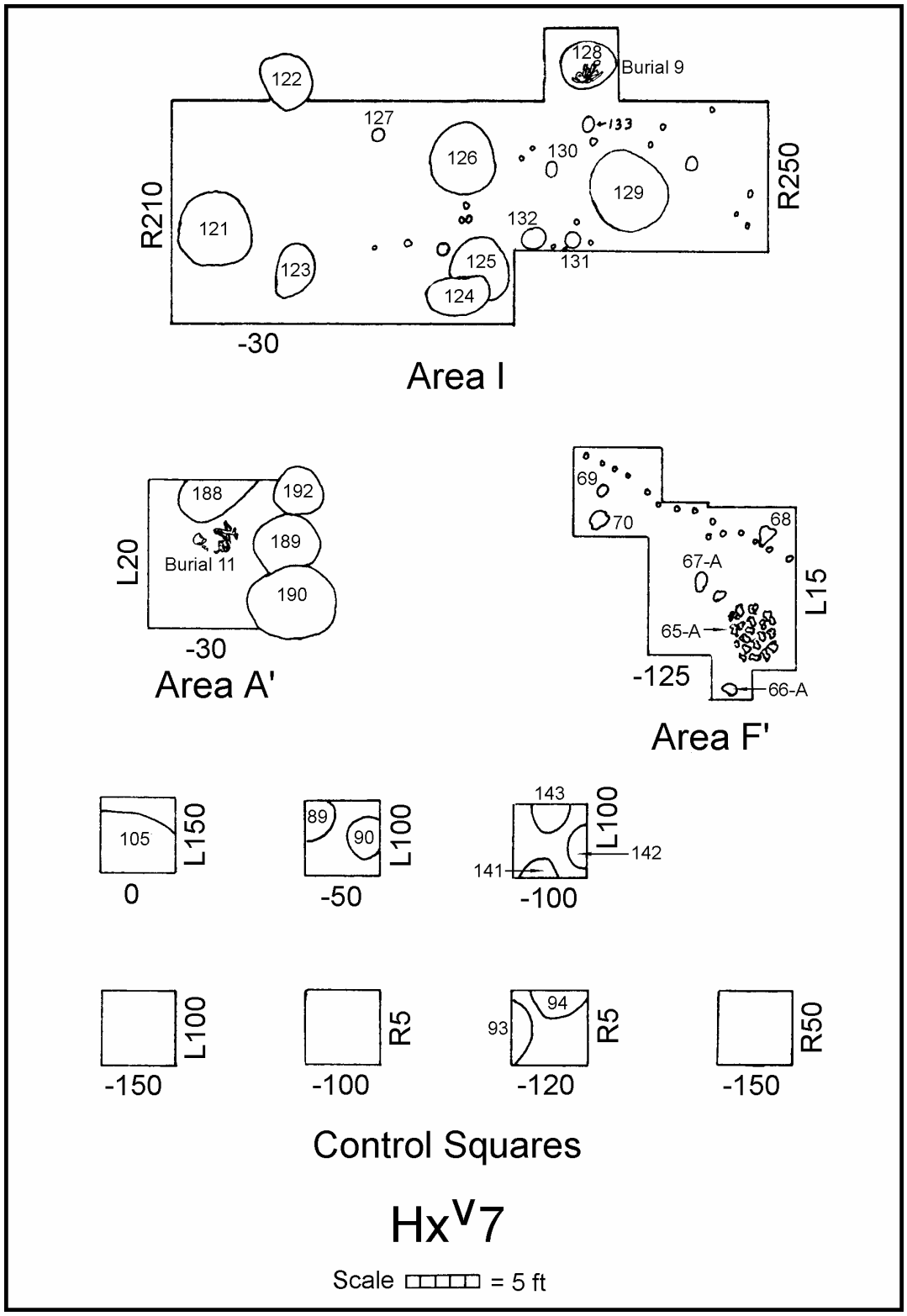


Figure 18. Areas I, A', and F', and control squares at the Gaston site. Area I: Outline and position of the features excavated in the area. Area A': The position of Burial 11 and features near it. Area F': Rock pile (Feature 65-A) and clay piles in relation to a row of stockade wall postmold patterns. Control squares: Showing features.

The graders removed a strip 20 feet wide and 100 yards long in less than a day. While they were at work, they were followed by one of us, and any artifacts found were kept and marked "after scraper." The drivers of the graders were instructed to watch for pits and burials, and artifacts. Many objects were no doubt destroyed in this process, but in the very limited time available for excavation of this site, it proved to be an excellent method for recovering much more information than was possible otherwise. Objects such as boatstones, celts, gorgets, and even a fragile platform pipe were recovered while following the motor grader (Plate 42).

When the graders approached the bottom of the midden layer the drivers were instructed to watch for the dark pit outlines in the yellow sand and to stop scraping an area when these began to show clearly. As an area was finished using the graders, sticks were placed in the discolored pit areas so that they could be located later when the sun had faded the soil and made the pits more difficult to see (Plate 43a).

Bulldozers as well as road graders were used for the purpose just described, and it seems appropriate to mention something of the relative merits of these two types of machines.

At this site where sand was being moved, the bulldozer was much more effective in moving more sand in a shorter time, and was also more successful in leaving a smoothed surface at the pit level. This was due to the caterpillar treads which tended to sit on top of the sand, while the large wheels of the road graders would sink into the soft sand if the load they were pushing became very heavy. The graders were forced to work slower and to shave the ground in smaller bites. On sites where clay, rather than sand, is being moved, there would be an advantage in using road graders, so smaller levels could be removed, thus giving more opportunity for the archaeologist to observe the removal of the midden in a more controlled manner.

The Method of Excavating the Features Exposed By Machine

After the pits were exposed by the road graders and bulldozers, measurements were made from the base and zero lines, and a line was strung as a reference in the scraped area. From this line, 10-foot squares were marked off with string, and each square was troweled. This was done so that a photograph of the discolorations in the square could be made, and the post mold patterns and pits could be plotted on a graph of the square. The photographs were taken from the top of the sifter frame and were always taken with the camera facing south. This is not as desirable as taking a photograph of a square with the camera lens directly over the center, but it is a good means of recording what was seen from that angle (Plate 43b).

The sand presented a problem here that probably would not be encountered in a clay soil. The troweling of the 10-foot area to expose the soil discoloration for photographing and plotting could not be done fast enough to prevent the soil colors from fading. In order to combat this, a canvas was placed over the first half as it was troweled, and then removed when the last half was finished. The result was two halves of the square with different moisture contents and colors. The canvas was done away with in favor of a gradually changing color tone. On cloudy days this problem did not present itself since the moisture evaporated at a slower rate, and the troweling could be finished before much fading of the soil color was evident.

a

b

Plate 42. Using bulldozers and road graders at the Gaston site to expose the deep cultural strata. A: Lewis Binford and volunteers looking for artifacts in an area disturbed by road graders at the Gaston site. B: Bulldozer removing midden from the Gaston site. The camp site is to the left with railroad fill in the background.

a

b

Plate 43. A: Bulldozed area at the Gaston site showing features marked with sticks. B: Troweled square showing feature outlines.

After being photographed and plotted on a graph of the square, the pits were excavated and sifted, and the material from each was placed in a bag with the site number, square number, and feature number written on the side. The pits were cleaned of discolored soil to the edges and the bottom. Usually the sifter was placed over a pit just excavated, and the soil from the next pit was sifted into it. After excavation of the pits in one 10-foot square was completed, the adjoining 10-foot square was strung off and the process repeated.

The square sheets on which the excavated pit outlines were plotted were all combined into a master graph of the excavated area. Each one of these bulldozed areas was assigned an area letter from A through I, and each area plotted can be seen in Figures 19–24.

Sometimes when excavating a feature in these bulldozed areas, or in the process of excavating a control square, a concentration of pottery or animal bone was encountered. These were cleaned with the trowel and brushes, and photographs were made before the concentration was removed. One such concentration of pottery was found in Feature 199 while excavating square 50R5 (Plate 44a), and when the fragments were glued together, they formed the large pot fragment of Clement Fabric Impressed pottery seen in Plate 10.

Plate 44b shows the bottom plate of a turtle shell with two square holes cut into one edge. This was found while excavating Feature 129. Features containing burials were given a burial number and referred to by the burial number. Plate 44c shows Burial 1 in Feature 9. The burials are discussed later in this chapter and in Appendix A.

Description of the Excavated Features at the Gaston Site

The features at the Gaston site consisted primarily of large pits shown in Figures 19–24. The few pits shown that have no numbers are those that were not excavated.

After the bulldozers had removed the midden deposit from an area, the troweled squares were plotted on a graph. If the excavated pit outline was different from the visual outline when first plotted, the correction was made on the square sheet.

A detailed description of the 200 features excavated at the Gaston site does not seem to be warranted at this time; however, the features will be described in groups having similar characteristics. The location of the various features can be seen in the area charts in Figures 19–24.

Garbage Pits

These features are called garbage pits because they contained quantities of animal bone, shell, sherds, charcoal, daub, and stone and bone artifacts. They are usually round in outline and measure from two to seven feet across, and from six inches to four and one-half feet deep. They were seen as a dark outline in the yellow sand at the bottom of the black midden accumulation on the site (Plate 43b). The method of excavating these features is described above. The following features are in the category of garbage pits as described here: 1, 3–6, 12–14, 18, 20, 21, 26, 27, 34–36, 41, 43–49, 47, 49–54, 56–58, 61–66, 73–77, 79, 80, 81, 84, 86, 87, 90, 91, 96, 97, 100, 101, 104–106, 108–112, 116–119, 121–123, 126, 135–138, 141–144, 146, 150, 157, 161, 170, 172, 173, 175, 176, 179, 181, 183, 184, 186–189, 191, 192, 195, and 196.

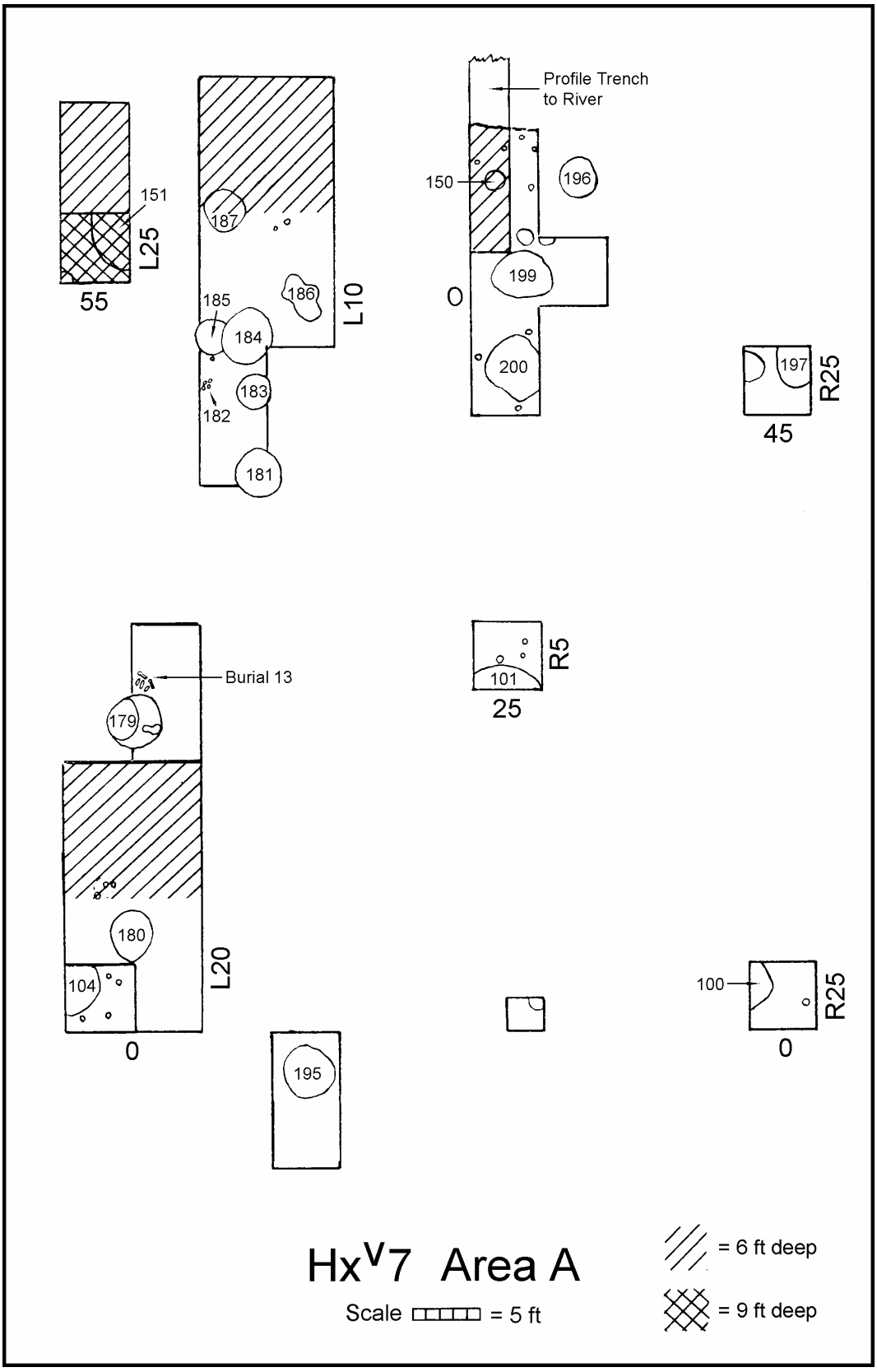


Figure 19. Area A excavations at the Gaston site showing the feature outlines (see Map 7).

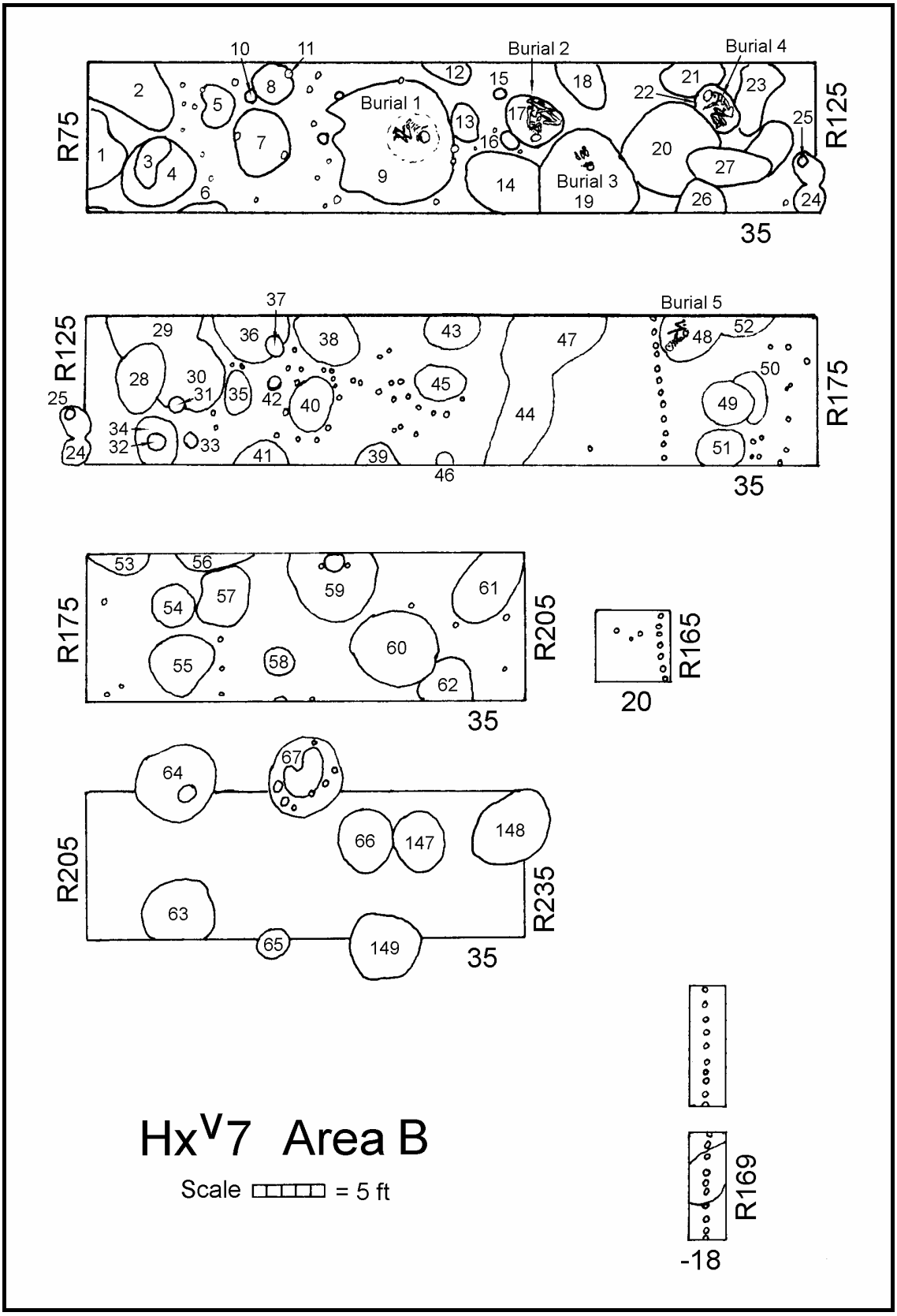


Figure 20. Area B excavations at the Gaston site showing the feature outlines (see Map 7).

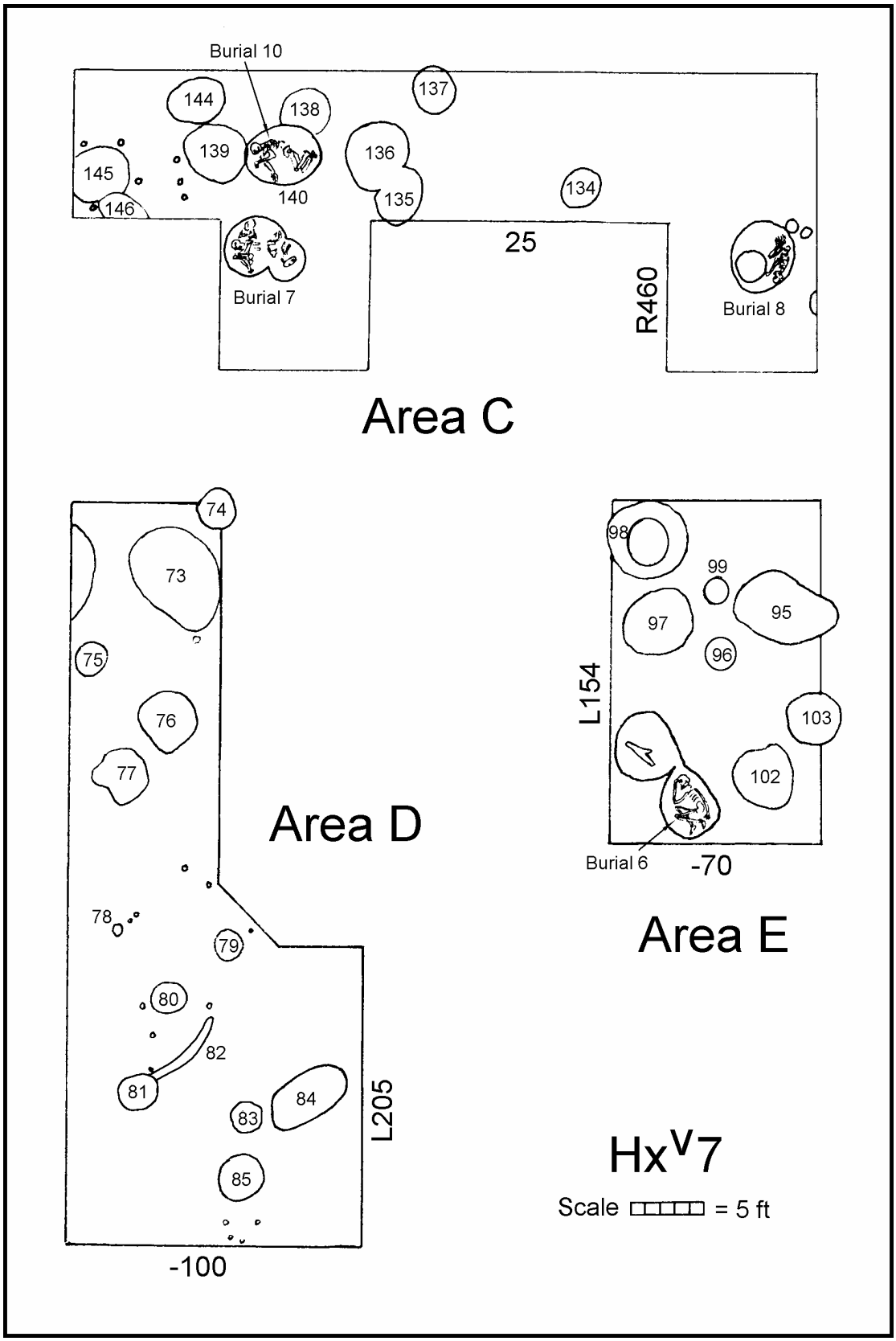


Figure 21. Areas C, D, and E excavations at the Gaston site showing the feature outlines (see Map 7).

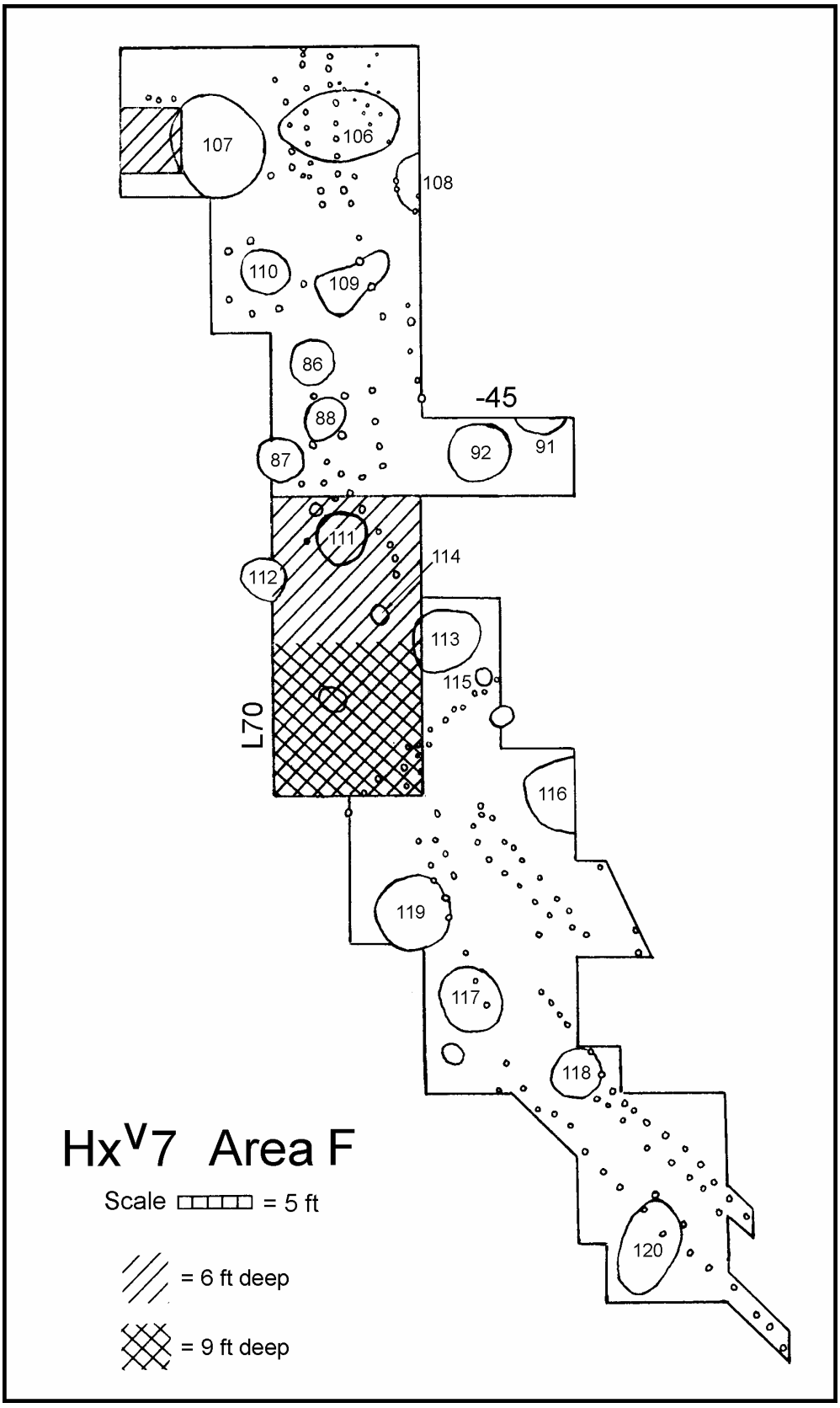


Figure 22. Area F excavations at the Gaston site showing the feature outlines (see Map 7).

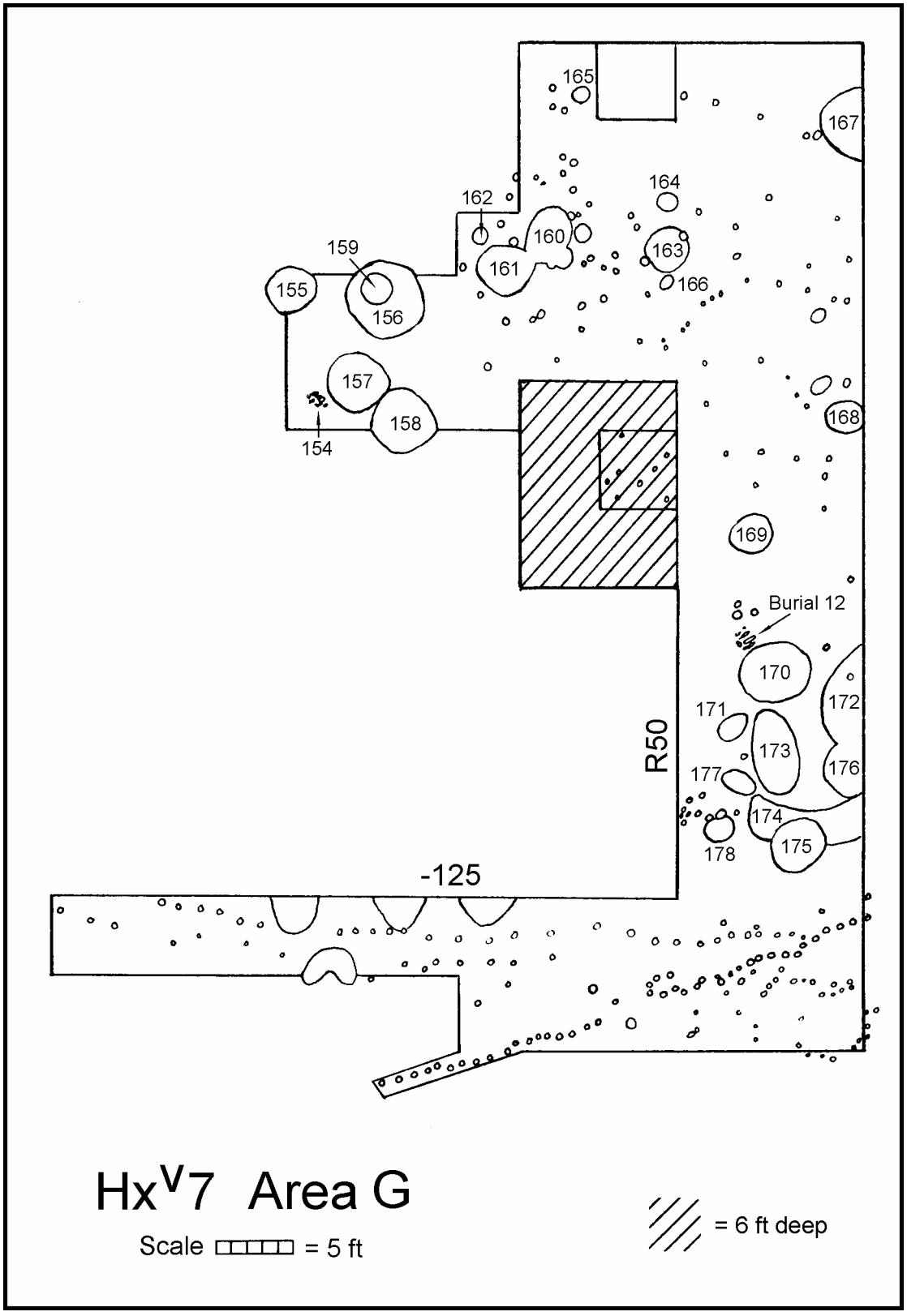


Figure 23. Area G excavations at the Gaston site showing the feature outlines (see Map 7).

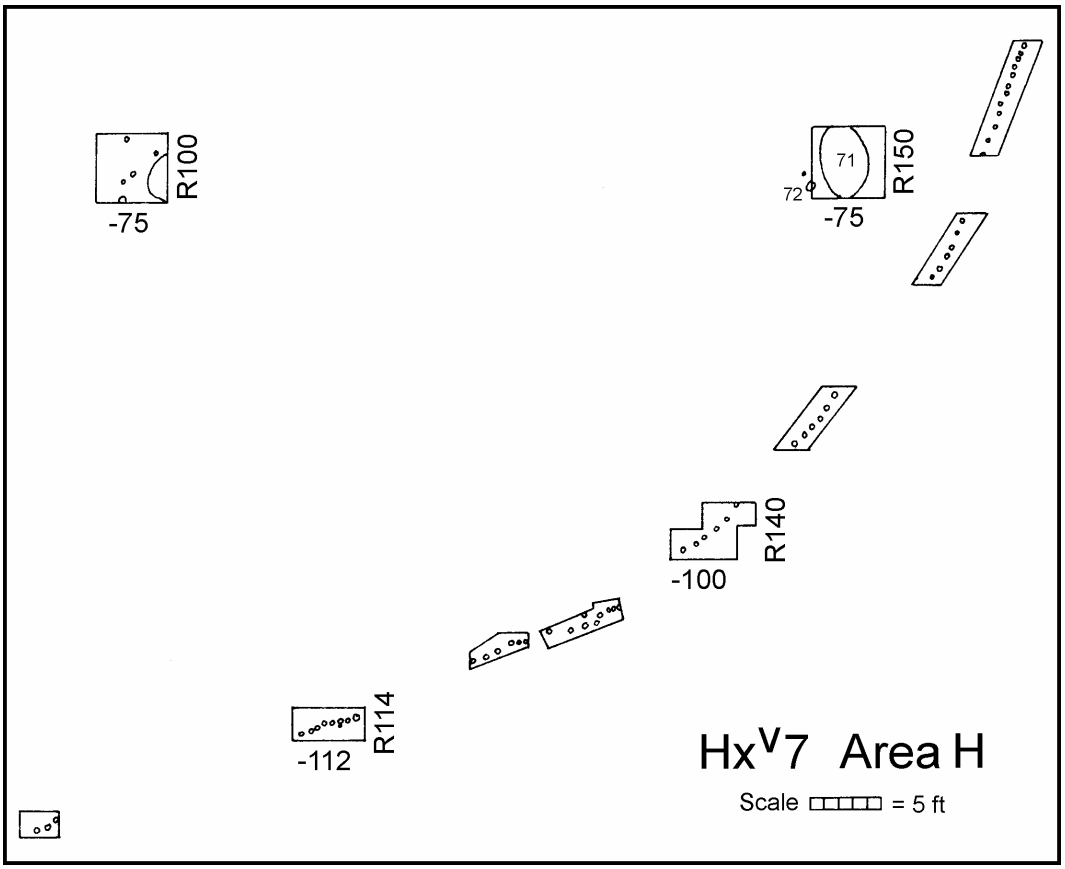


Figure 24. Area H excavations at the Gaston site showing the feature outlines (see Map 7).

Garbage Pits with Shell

Many pits contained large quantities of freshwater mussel shells. From those garbage pits that contained considerable quantities of shell, samples of the types were kept. Plate 40a illustrates some of the types of shell found in these pits. The following pits were of the garbage pit type, but contained shell in some quantity: 28, 29, 38, 60, 102, 148, 155, 158, 160, 169, 180, 190, 197, and 198.

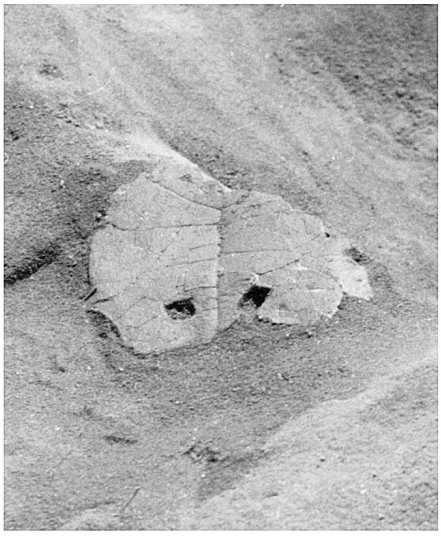
Small Garbage Pits

These pits are from one to two feet in diameter, and from 4 inches to two feet deep. They contained some midden material such as bone, sherds, and projectile points. Pits of this type are: 16, 25, 46, 162, 165, and 171.

Garbage Pits with Human Bone Fragments

Several pits that appeared to be ordinary garbage pits contained fragments of human bones. Feature 2 contained several human teeth; Feature 71 also contained human teeth. Feature 72 appeared to be a postmold and contained a fragment of a human skull and jaw. Feature 199 contained large fragments of broken pottery (Plates 10 and 44a), and at the bottom of the pit were found 12 human finger and toe bones and a few human teeth.

a



b

c

Plate 44. A: The pottery concentration in Feature 199, later glued together to make a large fragment of a Clement Fabric Impressed pot (Plate 10). B: Worked turtle shell in Feature 129, showing square-cut holes. C: Burial 1 in Feature 9 at the Gaston site.

Garbage Pits with Light Sand Center

Features 67 and 98 appeared at the subsoil level to be doughnut-shaped pits with the center area matching the subsoil sand in color. When these pits were excavated, they proved to have black midden underneath with a yellow sand fill in the center to a depth of six inches to one foot. These may represent pits that were open when the area was flooded, resulting in a clean sand fill in the center.

Fire Pits

These pits contained quantities of charcoal and ashes, and appeared to have been pits containing fires. Pits of this type are: 99, 103, 127, and 159.

Fire Pits with Rock-Lined Bottoms

These pits contained quantities of burned charcoal and in some cases bone, and had the bottom lined with fire-cracked stones. Pits of this type are: 23, 89, 92, 95, 107, 113, 120, and 139.

Small Charcoal Pits

These pits contained large quantities of wood charcoal. They were from one to two feet in diameter and were from 3 inches to one foot deep. They probably represent burned posts; however, some may have been fire pits. Pits of this type are: 69, 78, 115, 130, 131, 133, and 166.

Empty Pits

A group of pits similar to the garbage pits were those containing nothing but black discolored soil. They contained no sherds, bone, nor shell. In fact, nothing large enough to stay in the 3/8-inch screen was found in these features. Features of this type are: 30, 39, 147, 149, 167, and 168.

Small Empty Pits

These pits range from one to two feet in diameter and from four inches to two feet deep. They may have represented large postmolds or pits dug for other purposes. They were all characterized by having nothing in them. Features of this type are: 15, 31, 33, 37, 42, 114, 132, 164, 177, and 178.

Pits with Two Postmolds

These pits had a postmold on opposite sides of the pit that appeared to be associated with it. Feature 59 was a large pit containing a dog burial, and above this was a small fire pit with a postmold on opposite sides. Features 7 and 8 were pits of this type, being a fire pit with a postmold on each side. Features 10 and 11 are the postmolds on either side of Feature 8. Feature 163 was also a fire pit with a postmold on each side.

Pits with Four Postmolds

Features 40 and 88 were pits that each contained a dog burial, with four postmolds close to the pit on opposite sides. Feature 145 had the four postmolds, but contained no artifacts. Feature 200 had the four postmolds and also contained a large quantity of sherds and bone. The bottom of this pit was lined with stones. Feature 9 was human Burial 1, had several postmolds around the pit, and also contained a dog skull; however, Burial 1 may have intruded into the large pit that is Feature 9. The skull may have been part of a dog burial in Feature 9.

Dog Burials

Dog burials were found in several pits during excavation of the Gaston site. These were fully articulated dog skeletons, and the pits appeared to have been especially dug for this purpose. The pits usually contained little else than the dog, a few sherds, and very little midden. Several dog burials were accompanied by large fragments of deer bone. Whether this represented burial of meat with the dog or represented chance occurrence of the bone in the fill dirt could not be determined. The deer bone appeared at the level of the dog in some burials, and not in the higher fill dirt. Other than those dog burials having postmolds around the pit, the following pits contained dog burials: Features 55, 59, 83, 85, 93, 94, 134, and 156. A photograph of a dog burial that intruded into Burial 7 is shown in Plate 46a. Under the dog burial in Feature 151 was a human fetus.

Human Burials

Because the pit outlines were given feature numbers before the pits were excavated, the human burials frequently have feature numbers as well as burial numbers. These features are described later in this chapter. Feature 9 is Burial 1, Feature 17 is Burial 2, Feature 19 is Burial 3, Feature 22 is Burial 4, Feature 48 is Burial 5, Feature 128 is Burial 9, and Feature 140 is Burial 10.

Piles of Stone and Clay

Because of their geographic association, the following features are described together. They may or may not represent a cultural association.

In Area F (Figure 18), a large pile of stones was found immediately below the bulldozed soil. These stones had been fired and contained fragments of charcoal around and between them. Seven sherds were found associated with the stones. The pile of stones covered an area of three by five feet and were piled a foot thick. Some of the stones had been abraded and pecked, and one was pitted. This pile of stones is Feature 65-A.

One and one-half feet to the south of this pile of stones was a pile of red clay, one foot long by six inches wide and as many thick. This is Feature 66-A. One foot to the northwest of this pile of rocks was another pile of red clay similar to the other one.

Three feet to the northeast of the rock pile was another pile of red clay. This is Feature 68, which is just inside the stockade wall pattern. In the top edge of this feature was found a fragment of glass and a nineteenth-century cut nail. Whether this represents material brought into the feature by the plow, or whether the clay piles are of recent origin, is not known. The piles of clay near the large pile of rocks appeared to represent a kiln and pottery-making area, but the presence of the glass and nail in a pile of clay indicated that the clay may also have been recent.

Three feet to the northwest of the rock pile and two feet from a pile of red clay was a fire pit, Feature 67-A. Northwest of this fire pit was another lump of red clay, Feature 70. One and one-half feet north of this pile of clay was another fire pit containing ashes and charcoal. This is Feature 69. These clay piles were not found in any other section of the Gaston site during excavation. Their cultural relationship to the pile of fired rocks is not known. They may represent clay brought in to daub the stockade wall or houses, since fired clay daub fragments were found throughout the excavation of the features.

Feature 32

An individual description of this feature, as well as several others, is needed due to its unique nature. This feature was a small pit, 12 inches across and six inches deep, that contained a quart of charred hickory nut shells. Some of these fragments are illustrated in Plate 40d.

Feature 82

This feature (Figure 21, Area D) appeared to be the impression of a log laid horizontally on the ground at the subsoil level. It may have been a small ditch, but from the size, it appeared to be a log impression.

Features 124 and 125

These pits appeared to be separate pits at the subsoil level, but below the subsoil they appeared to be the same pit. They were handled separately in the seriation, however, and as can be seen in the seriation graph of the features (Figure 37), they appear together at the Gaston pottery period in the seriation.

Feature 129

This feature was a garbage pit in which was found the bottom plate of a box terrapin shell. Two square holes had been cut in the shell. A photograph of this shell as found in the pit is shown in Plate 44b.

Feature 148

This feature will be remembered by those excavating the Gaston site as the best pit dug because of the large number of sherds (n=1,062), bone, Clarksville type projectile points (n=11), and clay pipe fragments (n=10) that were found. As can be seen from the seriation chart of the features (Figure 37), this feature was high in the percentage of Gaston Simple Stamped type pottery. For this reason charcoal from the feature was sent to the University of Michigan for radiocarbon dating. A report of the radiocarbon dates from various features at the Gaston site appears in Chapter 6.

Feature 152

This feature is hearth #1 in square 55L25 at a depth of 63 inches at the Halifax level (Figure 30). This hearth, along with hearth #2, is described in the section on excavation of square 55L25 in this report.

Feature 153

This is a concentration of white quartz rocks at the 53-inch level of square -60L60 at the Halifax level. This feature is described with the description of excavation of square -60L60 (Figure 32).

Feature 154

This was a group of four steatite sherds found in the yellow sand after the bulldozer had cleaned off the black midden deposit. They were found in square -95R35. Associated with these sherds was a concentration of hematite and limonite lumps. Some of these are illustrated in Plate 28a.

Feature 174

This feature was a shallow ditch six inches deep. The position of the ditch at the subsoil level is shown in Figure 23.

Feature 182

This feature was a pile of burned stones found in the yellow sand after the bulldozer had removed the midden deposit from the area at square 40L15.

Feature 191

There was a stone hearth in square 60L10 at the Savannah River level (Figure 36), with the base of a Savannah River point. This feature is described with the square description for 60L10. Charcoal from this feature was used to obtain a radiocarbon date for the Savannah River level.

Feature 192-A

This was a postmold at the Savannah River level in square 60L10 (Figure 36). It is included in the square 60L10 description. Charcoal from this feature was used to obtain a date for the Savannah River cultural material.

Feature 193

This was a postmold at the Savannah River level in square 60L10. This feature and Feature 192-A represent the only evidence for the use of upright posts, perhaps for dwellings, that was found at the Savannah River level at the Gaston site. Feature 193 contained no charcoal.

Features Used for Radiocarbon Dating

Charcoal from several features was sent to the University of Michigan for radiocarbon dating. A report of these features and the dates derived from the charcoal is included in Chapter 6.

The Method of Excavating the Stockade Wall Postmolds

After square 39R165 was troweled, a row of postmolds was seen to cross the square at a right angle to the river (Plate 45a). This row consisted of 12 postmolds in a straight line. In order to determine whether or not the row was a stockade wall, another square was dug 10 feet further into the site. The row continued in this square also. Twenty feet further from the river a trench 2.5×8 feet was dug along the path of the postmold pattern (Figure 24 and Plate 45b).

a

b

Plate 45. The row of postmolds remaining from a stockade wall around an area of the Gaston site. A: Square 35R165 showing the postmold pattern. B: Trench of the type used to locate and follow the stockade.

This procedure was followed until 12 such trenches had been dug and the postmolds seen as darker soil against the yellow sand. The row curved upstream, and at the point where it almost paralleled the river, it was 200 feet from the river. The upstream side of the row was never located, although several rows of postmolds were found in bulldozed areas (Figure 22). None of these seemed to be a continuation of the same stockade wall that had been followed in the trenches. Not all of these rows of postmolds were excavated, but several were numbered and sifted, and the contents saved.

Seven sherds were found in the few stockade postholes that were excavated. Of these seven, five were of the Gaston Simple Stamped type. Though this evidence is flimsy, it is thought that it is sufficient to date the stockade wall as belonging to the Gaston pottery period.

This conclusion is supported by the fact that 55.5% of the Gaston features fall within the area of the stockade wall, while the Clement features are concentrated outside the stockade wall to the east. Several Vincent type features are located inside the wall, but the small percentage of Vincent type sherds in the postmolds suggest that it was not of that time period.

The Method of Excavating the Burials at the Gaston Site

When a burial was found in one of the pits it was excavated using grapefruit knives and brushes. The sand was removed from around the bones to a level even with the bottom of the bones. In some cases the area around the entire pit was excavated down to this level so that the outline of the pit would show clearly. In other cases the burial was left on a platform and a profile of the pit was cut to show the relationship of the burial to the bottom of the pit. All burials were photographed after being cleaned and allowed to dry for several days before attempting to move them. The skull was removed in the block of sand supporting it, and the skull and the remainder of the bones were taken up and packed in boxes of sand.

Only two burials had an artifact associated with them. Burial 10 had a triangular projectile point in the hand, and Burial 7 had a stone pipe on the pelvis. This stone pipe was photographed in situ in various stages of excavation as it was uncovered (Plate 46b). All burials were drawn on a graph of the square in which they were located. Their position in the pit, their degree of preservation, and the associated material was noted on the graph. Sketches of the burials are in Figures 25–28.

The skulls were glued together in the laboratory whenever possible. Several skulls were badly crushed as a result of the weight of the bulldozer pausing over the pit. The reconstructed skulls were taken to Dr. Marshall T. Newman, Associate Curator of Physical Anthropology at the Smithsonian Institution in Washington, DC, for analysis, and his report is included in Appendix A.

Description of the Burials at the Gaston Site

Burial 1 (Figure 25)

This burial was fully flexed on the left side, with hands near the skull, in an oval pit. The top of the skull was located at a depth of 17 inches from the bulldozed level, which was the bottom of the midden accumulation on the site. At the same depth as the skull, and located near the feet of the burial, was a skull of a dog. Lying across the legs of the

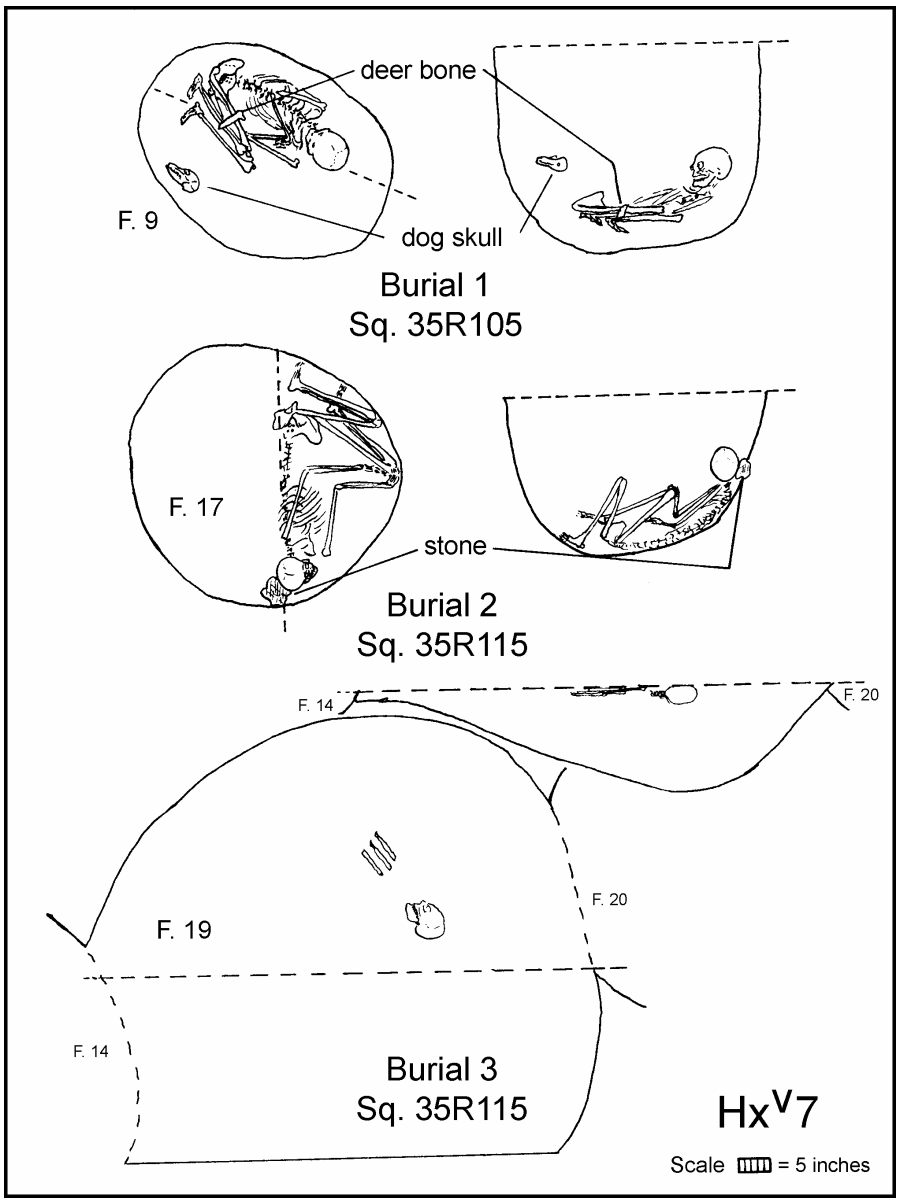


Figure 25. Drawings of Burials 1, 2, and 3 at the Gaston site.

burial was a deer bone. A photograph of this burial is shown in Plate 44c. The skull was oriented toward the southeast. A photograph of the skull is shown in Plate 54. The burial appears to have been an adult male.

Burial 2 (Figure 25)

This burial was lying on the right side with the left hand near the right knee and the right hand on the left knee. It was in a slightly sitting position, with the skull considerably higher than the rest of the body and resting on a stone in the edge of the pit. The skull was nine inches from the bulldozed level. The pit was round in outline and was 25 inches deep below the bulldozed level. The orientation of the skull was to the south.

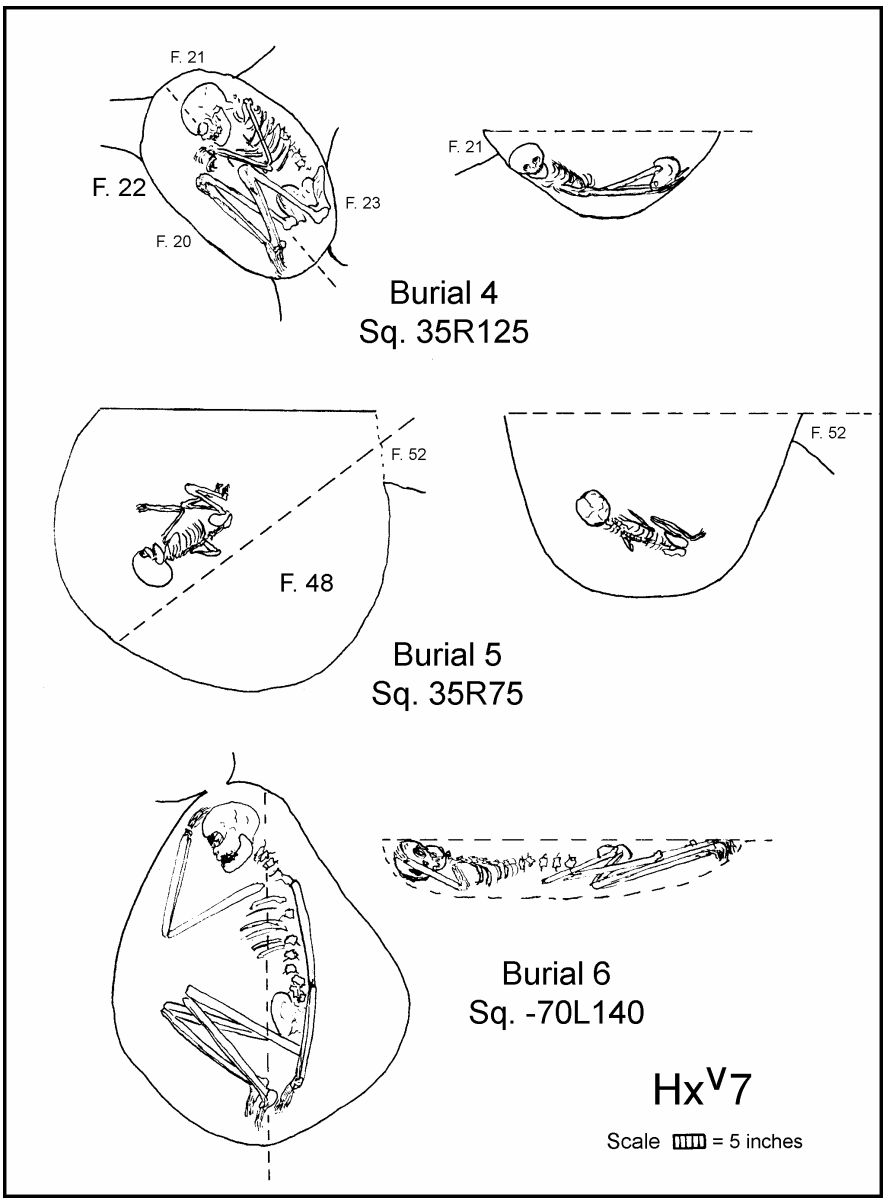


Figure 26. Drawings of Burials 4, 5, and 6 at the Gaston site.

Burial 3 (Figure 25)

This burial consisted of a skull and three long bone fragments located at the level of the bulldozer cut. It appeared to have been a flexed burial with the orientation toward the southeast. It was in a large midden pit, and the outline of the burial pit could not be seen.

Burial 4 (Figure 26)

This burial was tightly flexed, lying on the right side, in a small oval pit. The orientation of the skull was toward the northwest. The skull was located at a depth of three inches below the bulldozed level, and the hands were in front of the face. A tip of a projectile point was located one inch from the spine at the back of the neck.

Burial 5 (Figure 26)

Burial 5 appeared to be that of a child of four or five years of age. It was lying on the left side, flexed, with the skull oriented toward the southwest. The burial was in a pit with abundant midden material. Shell, bone, and sherds were located below and around the burial. The pit was a large round pit and had evidently been dug for another purpose than for burial of the child.

Burial 6 (Figure 26)

Burial 6 was a large adult burial, lying semi-flexed on the right side and oriented toward the north. The right hand was at the forehead, and the left arm was extended with the hand at the left heel. The skull was located at the level of the bulldozer cut surface and, as was the case with many burials, was crushed from the weight of the machine. The preservation of this burial was very poor.

Burial 7 (Figure 27)

This burial contained parts of two individuals. The skull had been crushed by the bulldozer, but the remainder of the bones were undisturbed. The torso and skull of one individual was lying on the back, oriented toward the northeast. The pelvis of the same individual was lying at right angles to the torso, with the legs extended toward the southeast. Both femurs had been broken, and were found under the dog burial that intruded into the human burial. Lying across the pelvis and broken femurs of this burial were the legs and pelvis of a second individual. Near the pelvis, with the ends extending under the pelvis, an ulna and radius were found. No other bones were in the pit.

A round pit visible at the level of the bottom of the burial pit had intruded into the human burial and contained a dog burial at the same level as Burial 7. The broken distal end of a human humerus was found near the pelvis of the dog, and under the dog was found the missing broken distal ends of the femurs from Burial 7 (Plate 46).

Located on the pelvis of Burial 7 (pelvis #1) was a polished stone pipe of chlorite. This pipe had been broken across the bowl, and the break was fresh. It obviously had been broken by the weight of the bulldozer. This pipe is illustrated in Plate 46b in a close-up photograph of Burial 7 and also in Plate 31.

Pelvis #2 with the legs, ulna, and radius must have represented a flexed burial placed on top of Burial 7 at the same or later time as the interment of Burial 7, and with the head oriented in the opposite direction. At a later time the dog burial pit must have been dug directly over this burial represented by pelvis #2, and when bones of this burial were encountered, another pit was dug that intruded into Burial 7, resulting in breaking the femurs. This explanation could account for the humerus from the burial represented by pelvis #2, and possibly the femurs from Burial 7, being in the dog burial pit.

Burial 8 (Figure 27)

This was a tightly flexed burial, with the hands in a position in front of the face. It was located in the side of a large round pit which may not have represented the outline of the burial pit. Near the hands was a black outline and fired area of a fire pit. The skull was at the level of the bulldozed cut. The orientation was to the south. This burial was poorly preserved.

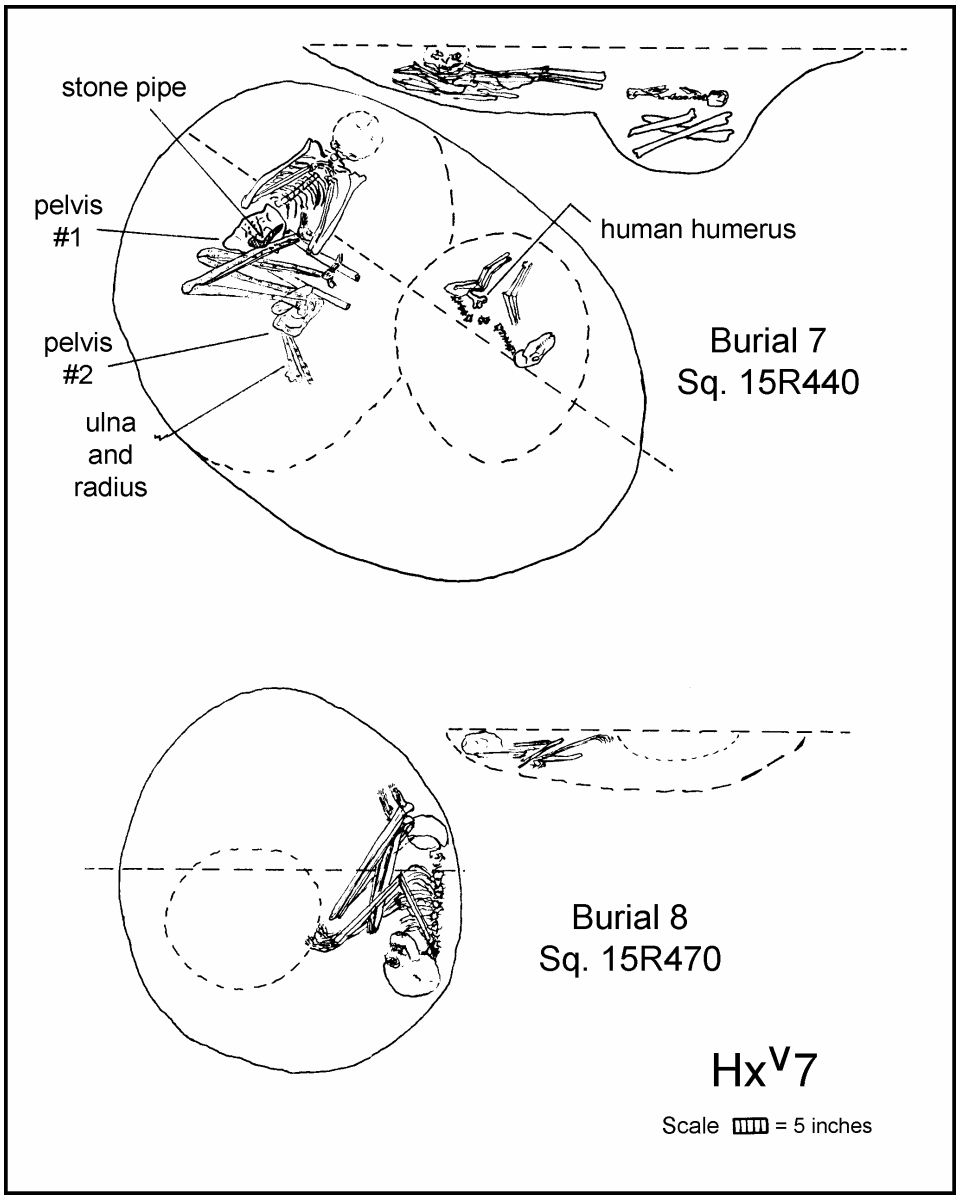


Figure 27. Drawings of Burials 7 and 8 at the Gaston site.

Burial 9 (Figure 28)

Burial 9 was a bundle burial, with the skull face down in a northeastern direction from the long bones. The pelvis was at the opposite end of the long bones, and the mandible was located at the pelvis. The pit was round and contained a quantity of midden material, bone, shell, and sherds.

Burial 10 (Figure 28)

Burial 10 was semi-flexed on the right side, oriented toward the west. The right arm was extended away from the body, and the left arm was near the face and right shoulder. In the curve of the fingers of the left hand was found a triangular projectile point of the

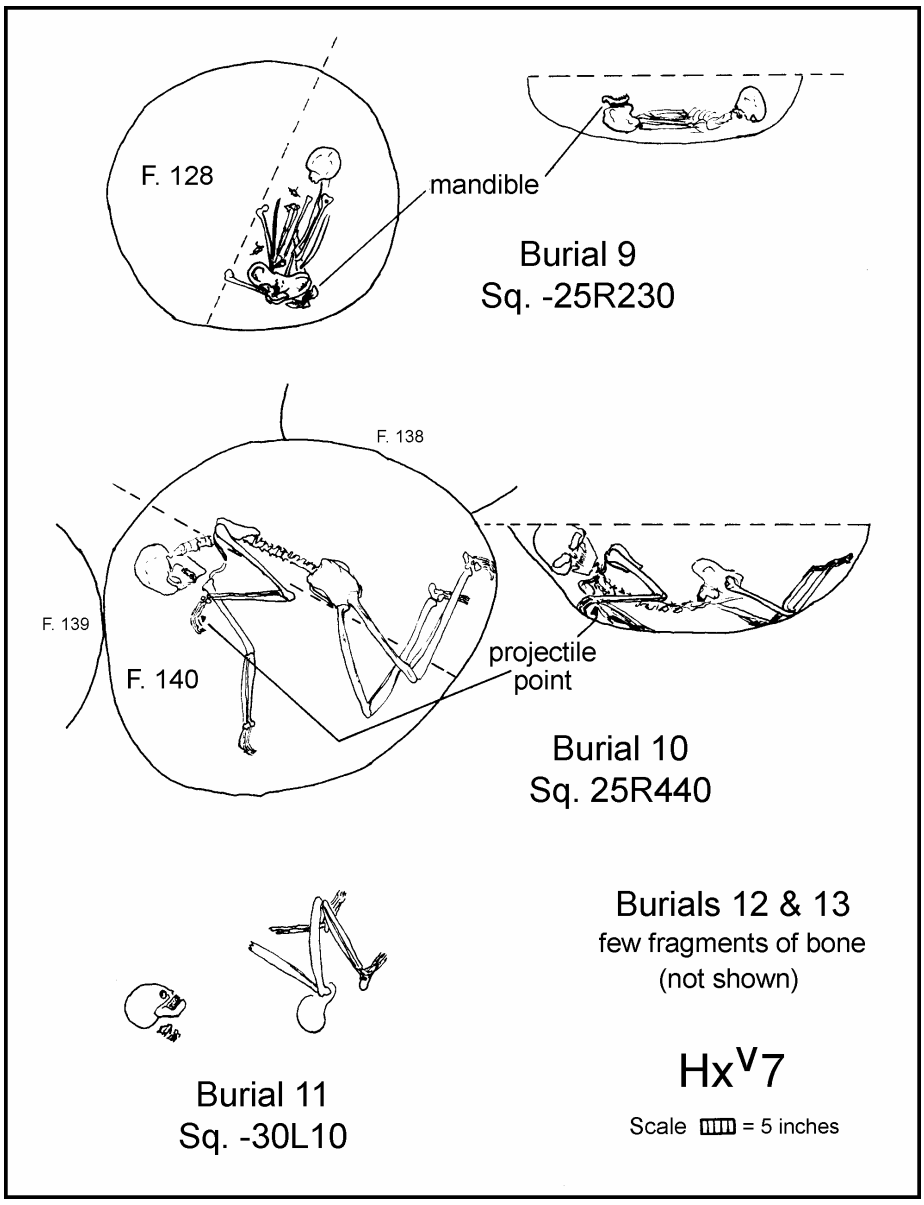


Figure 28. Drawings of Burials 9, 10, and 11 at the Gaston site.

Roanoke type. The skull was at the level of the bulldozer cut, and the bones were in a poor state of preservation.

Burial 11 (Figure 28)

Burial 11 was located in the yellow sand, with no pit outline visible, at the bulldozed level. It appeared to be a flexed burial, but the arms were missing, as well as the ribs and backbone. The orientation was toward the west, lying on the left side.

a

b

Plate 46. Burial 7 at the Gaston site. A: View to the west, showing intrusive dog burial in foreground. The bone under the pelvis of the dog is a human humerus. B: Close-up view of Burial 7, showing the engraved stone pipe in situ. The burial was near the surface and was crushed by the weight of the bulldozer.

Burials 12 and 13

These burials were represented by a few bone fragments found in the yellow sand after the bulldozer had passed over the area. There were enough bones to definitely establish that they were human, but nothing more.

Burial 14

This burial was not found in the field, but in the laboratory. In excavating square 55L25, in Feature 150**,** a dog burial was found. This was cleaned with a brush until the outline of the dog could be seen, and then the bones were taken up with a trowel and put in a bag and labeled as a dog burial.

In his identification of the bone material from the features, Dr. F. S. Barkalow found that with this dog burial were the bones of a fetal human infant. This infant must have been directly under the dog burial, taken up along with the dog, and therefore not observed in the field.

Summary of the Burials and Associated Material at the Gaston Site

The burials at the Gaston site were usually flexed and placed in a round to oval hole. Grave offerings*,* if any, were confined to perishable goods leaving no evidence. One burial, however, contained an engraved stone pipe of chlorite. This particular burial contained remains of two and possibly three individuals.

One bundle burial was found, indicating that this method of interment was occasionally used. The burial pit was usually dug especially to receive the deceased, and backfilled shortly after; however, an open garbage pit might be used to bury small children. A number of dog burials were found, and one of these contained a human fetus.

Table VII lists the sherds and other objects found with the burials or in the burial fill. As can be seen from the totals of the various pottery types, the Clement series pottery was the most predominant type found with burials.

Burials 1, 2, 4, 5, and 9 were evidently burials made during the popularity of Clement type pottery. Burials 4, 6, 7, and 10, and the dog burial near Burial 7, all contained Gaston type sherds and were probably buried sometime during the late occupation of the site (i.e., during the Gaston pottery period). On the basis of the associated material, no burials can be assigned to the Vincent period occupation of the site.

Skulls and fragments from Burials 1, 2, 4, 6, and 9 were examined by Dr. Marshall T. Newman at the Smithsonian Institution in Washington, DC, and his report is included in Appendix A. The physical type of these skulls was found to be Neumann's Lenapid, or Hrdlicka's Algonkin, variety.[2]

The Method of Excavating the Pre-Pottery Levels at the Gaston Site

While cleaning the sides of several deep garbage pits, yellow quartzite chips were found in the yellow sand in the wall of the pit. In two pits a stemmed Savannah River type projectile point was found in this manner. This information, along with the fact that quartzite chips were found in the yellow sand when the first approach trench was begun on the site, prompted the digging of a profile trench from the surface of the site to the level of the river (Figure 29).

Table VII. Objects from the Burial Fill Dirt at the Gaston Site.

Burial Number	Gaston	Type I Cord	Type I Fabric	Clement Cord	Clement Fabric	Type II Cord	Type II Fabric	Net II	Vincent Cord	Vincent Fabric	Other
1	-	-	-	4	2	-	-	-	-	-	
2	-	1	1	32	10	6	-	2	-	2	
3 (no objects)											
4	1	-	1	8	-	1	-	-	2	1	
5	-	-	2	11	-	1	-	-	5	1	
6	7	1	4	12	18	-	-	-	1	4	3 rocks 3 projectile pts.
7	2	1	3	4	6	-	-	-	-	3	1 stone pipe
7 (below dog)	1		1	1	-	-	-	-	-	-	
8	-	-	2	1	-	-	-	1	-	-	1 red ochre 1 crude triangle pt.
9	-	-	-	14	3	-	-	-	-	-	
10	2	3		22	9	1	-	-	3	-	1 steatite sherd 2 Clarksville proj. pts. 2 Roanoke proj. pts.
11 to 14 (no objects)	-	-	-	-	-	-	-	-	-	-	
Total	13	6	14	94	48	9	0	3	11	11	

In excavating this trench and square 55L25, it was found that the site was definitely stratified, with layers of sand bearing cultural material separated by layers of sand bearing no cultural material. A series of 10-foot squares was then excavated to a depth sufficient to recover the cultural material in these deep layers. Areas where the bulldozers had previously removed the midden accumulation were chosen for the excavation of these 10-foot squares.

The square was first cleaned of all postmolds, and pits previously dug were cleaned to be sure all black midden soil was removed. A trench was then dug along the side of the square in order to obtain a visual profile, if one was to be seen, and to give a control profile from which to work. This trench was three feet deep. The square was then shoveled off in six-inch levels, all sand being sifted. Since the presence of chips in the sand indicated that an occupation level had been reached, all chips were kept from all of these pre-pottery levels. This was done for future comparison with projectile point type material.

The first 12–15 inches of the square was usually found to be sterile sand, with no chips or pebbles. When the discolored occupation level was reached, the chips began to appear. When the first chips appeared in the screen, excavation was continued in three-inch instead of six-inch levels. When the first projectile point appeared in the screen, excavation then proceeded in two-inch levels. At this stage, each shovelful of sand was sifted and the screen examined before the next shovel of sand was thrown in. In this manner, each projectile point was located within a shovel width of accuracy horizontally and within an inch of accuracy in depth.

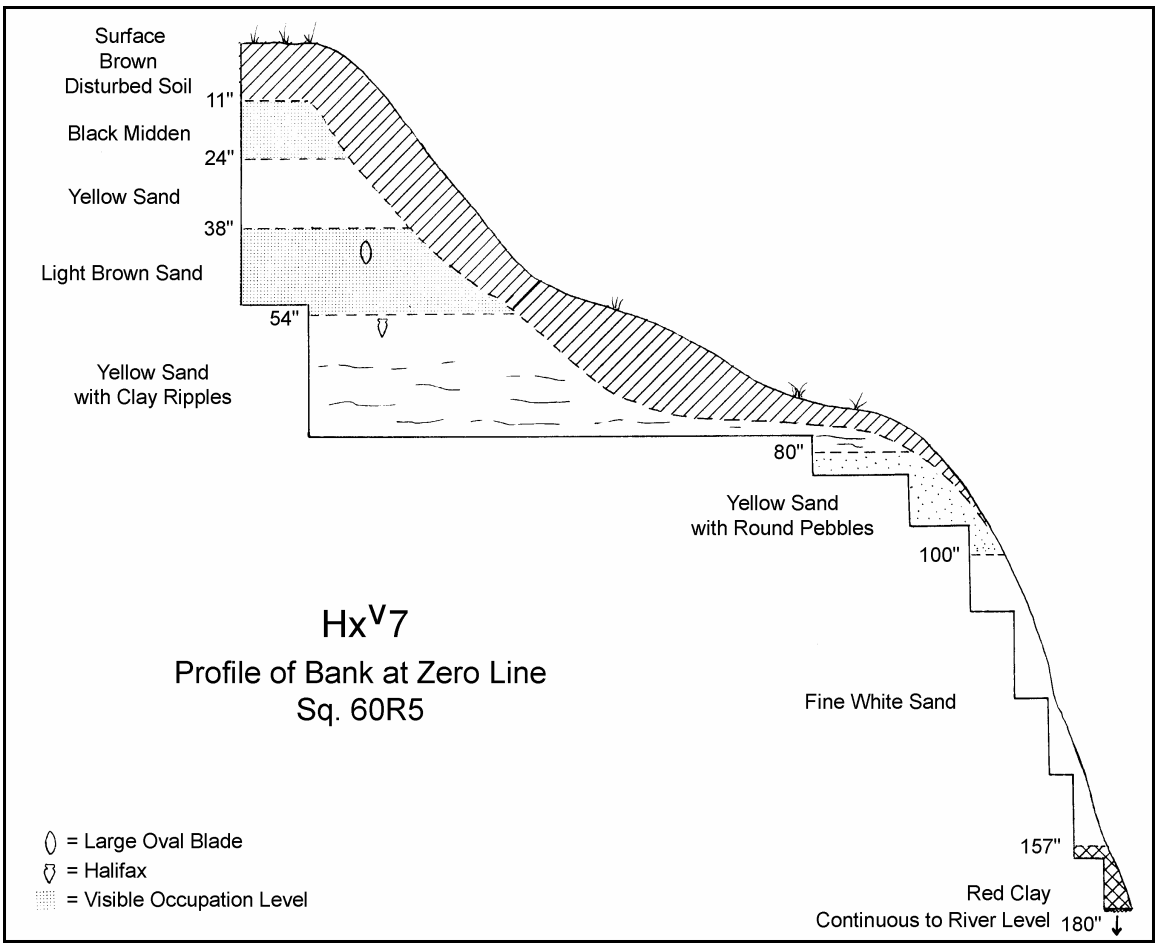


Figure 29. The profile of the bank at the zero line in square 60R5 at the Gaston site.

Because the bulldozer had removed the surface level above these squares, a reading with a transit was taken on each side of the bulldozed area where the square was being dug. In this way the original level of the surface above the square was determined. When a projectile point was discovered, its depth was determined by use of the transit, and its horizontal position in the square was plotted on a graph. Each projectile point was placed in an individual bag on which its depth and specimen number were marked.

After an occupation level had been passed, and the presence of chips disappeared, the levels were increased to four inches until another chip and artifact level appeared. In studying the charts showing the stratigraphic relationship of each projectile point, the following should be kept in mind. All projectile points that could be typed are included in the charts and appear as a little symbol of that type on the chart. If three projectile points of a particular type were found, three symbols of that point will appear at the level at which they were found.

If at the discolored level, usually containing Savannah River type projectile points, only Large Oval Blades were found, these are plotted as a symbol at the level at which they were found, if both Savannah River projectile points and Large Oval Blades were found in this level, only the projectile points were plotted on these charts for lack of space.

The description of the artifacts found in each square accompanied each figure illustrating the profile of that square. The squares are presented in the order excavated.

Excavation of the Profile of the Bank at the Zero Line, Square 60R5 (Figure 29)

In order to check for possible stratigraphy, and to get a picture of the soil relationships below the midden accumulation on the site, a profile of the river bank was dug along the zero line beginning at square 60R5.

In excavating this square below the black midden accumulation the presence of quartzite chips was noticed as the excavation approached 40 inches in depth. A large oval blade was found at the 42-inch level. Cleaning of the profile at this point revealed a darker layer of sand beginning at the 38-inch level. The square was continued to a depth of 55 inches, and at the 55-inch level was found a projectile point of the Halifax type.

The discolored layer was clearly seen as the excavation was continued to a depth of 80 inches. The trench was extended at this level toward the river and from this point on down the steep side of the bank. It was dug in a series of steps (Figure 29). At a depth of 180 inches the red clay subsoil was encountered and continued to the water level of the river. After the discovery of the stratigraphy of the site in this square, the other deep squares on this survey were dug.

Excavation of Square 55L25 (Figure 30, Plate 47)

This five-foot square was excavated for the purpose of obtaining a profile of the site. The square was near the edge of the river bank, and a trench from the square out to the edge of the river bank was cut so that the profile could be photographed (Plate 47).

At the bottom of the midden accumulation a pit was found containing a dog burial. This burial is discussed under the section on features. This feature was removed, and the sifting of the sand continued to the 48-inch level. Chips appeared in the screen at this level and continued to the 72-inch level. A brown discolored layer was seen on the profile between 48 and 58 inches. No projectile points were found in this level. At the 59-inch level a Halifax type projectile point was found. At the 66-inch level a chipped-notched ax was found at the same level as a hearth. This was hearth #1; underneath it and separated by two inches of sterile sand was another hearth, designated hearth #2. Charcoal was collected from these hearths in quantities sufficient to give a radiocarbon date. It is thought that hearth #2 should give a date for the Halifax material.

At the 65-inch level a Guilford type projectile point was found, and at the 68-inch level a Halifax type point was recovered. Five pecked stones were found between the 58-inch and 63-inch levels.

The square was continued to a depth of nine feet, and no other cultural material was found below the 72-inch level (Plate 47).

Excavation of Square -28L76 (Figure 31)

This square is shown in Area F as a five-foot square in the edge of Feature 107. After the discovery of the discolored layer on the profile of the bank at the Gaston site, a small square was dug, extending out from the side of the already excavated Feature 107. This small, three-foot square was dug in an attempt to discover whether or not the discolored level could be seen at this point. This was the primary purpose of digging this square,

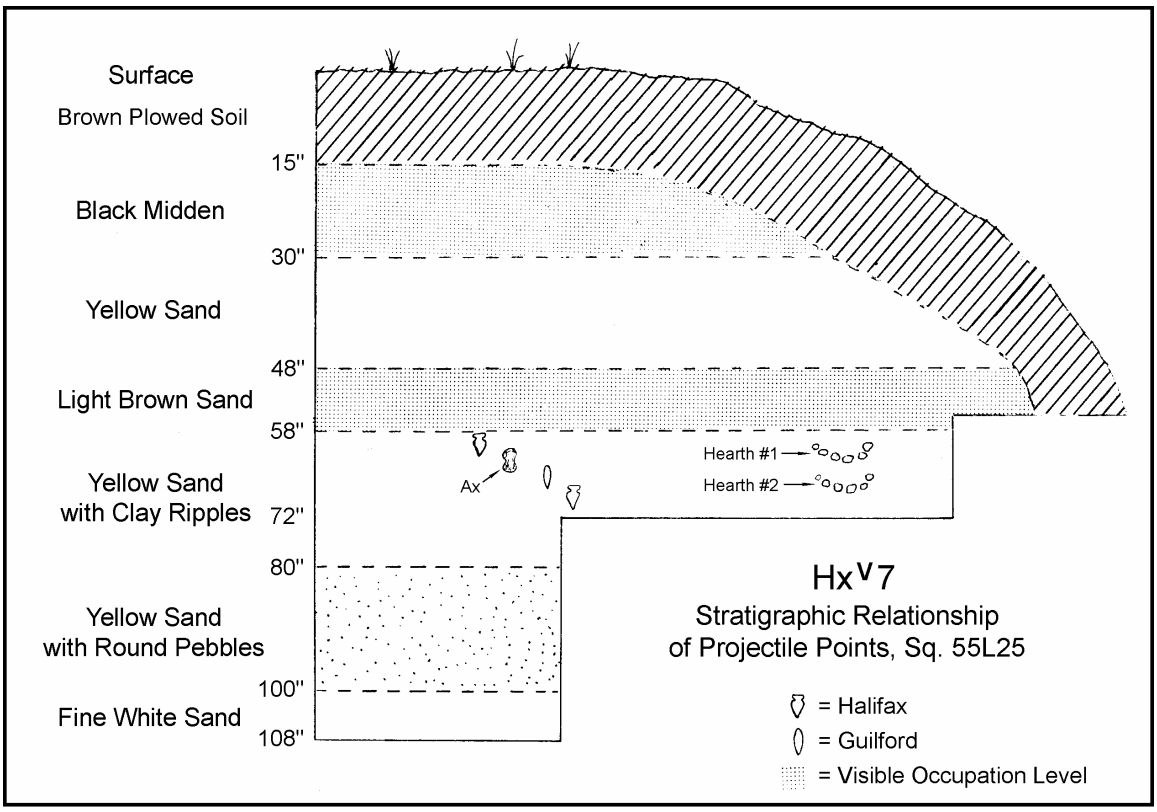


Figure 30. The stratigraphic relationship of projectile points in square 55L25 at the Gaston site.

and the plan was to see if the occupation level extended this far into the site. If it did, the plan was to dig a 10-foot square in the vicinity. The discolored layer could not be seen in the profile of this square, but at the 44-inch level two notched axes and a Guilford and a Halifax type point were discovered.

At this point the square was enlarged to become a five-foot square and dug to a depth of 60 inches, but no further chips or artifacts were found. The relationship of these artifacts to the discolored layer in the profile of the bank is not known.

In Figure 31, the bulldozed depth is shown as 21 inches; the depth of the midden deposit at this point on the site was thinner due to the fact that it was in a spot where a road had been cut previously. The 21-inch measurement for the depth of the bulldozed cut for this square was taken from the nearest profile of the bulldozed cut. This point was the highest point on the site at the present time, and if this was the case also in prehistoric times, this would account for the relatively higher position of the Guilford and Halifax material in this test square (Figure 31).

Excavation of Square -60L60 (Figure 32, Plate 48a)

This square is located in Area F (Figure 22), and it contained a series of postmolds, plus Features 111, 112, and 114, that had been excavated after the bulldozer had cleared the area of the midden accumulation. These features had been excavated and, when excavation of the area was begun in order to locate the underlying stratified material, the holes where the features had been excavated were cleaned and the area cleared of postholes and other intrusive pits.

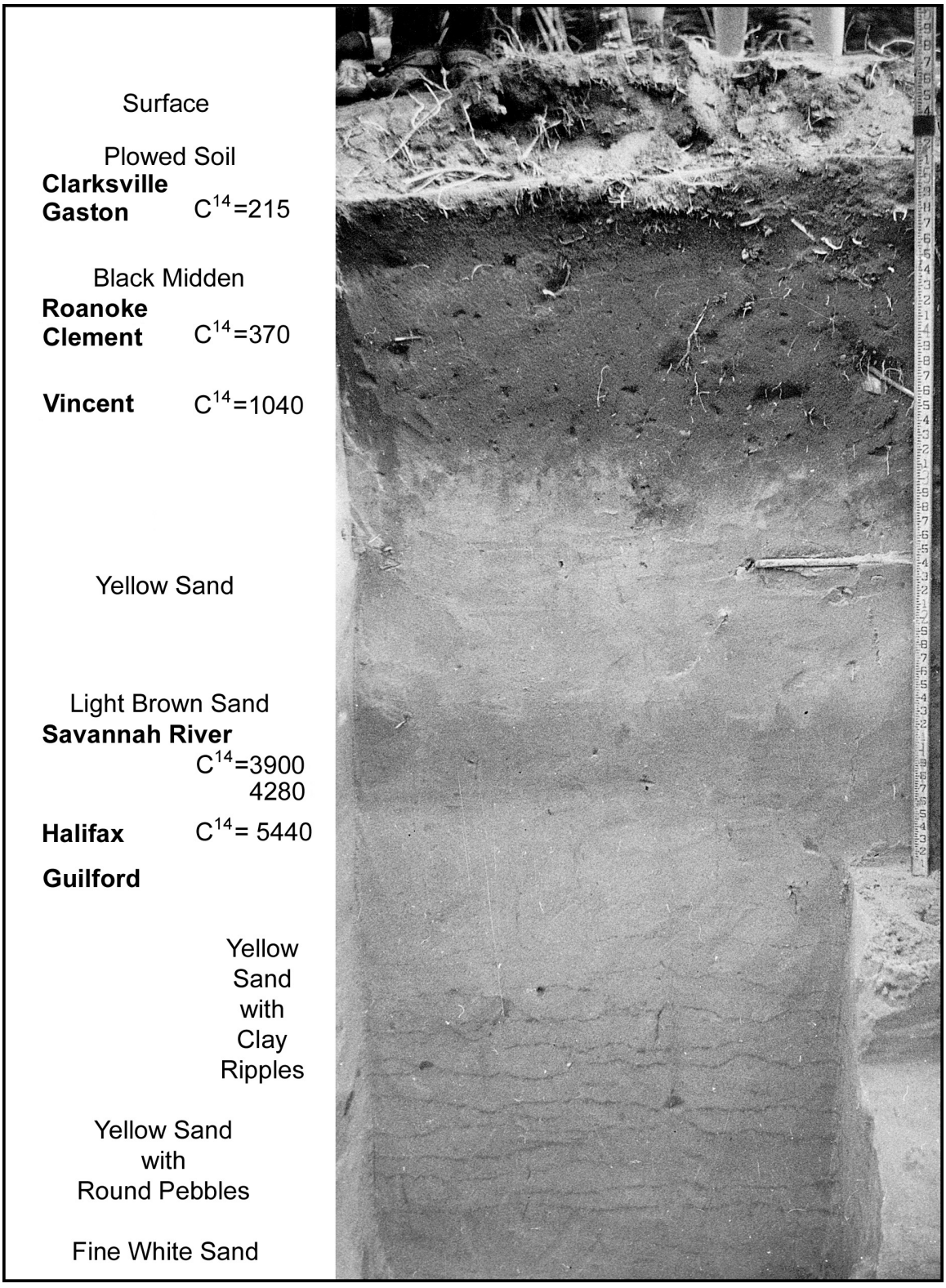


Plate 47. Profile of square 55L25 at the Gaston site showing the cultural material strata from Clarksville at the top to Guilford at the bottom, with radiocarbon dates obtained for the cultural assemblages.

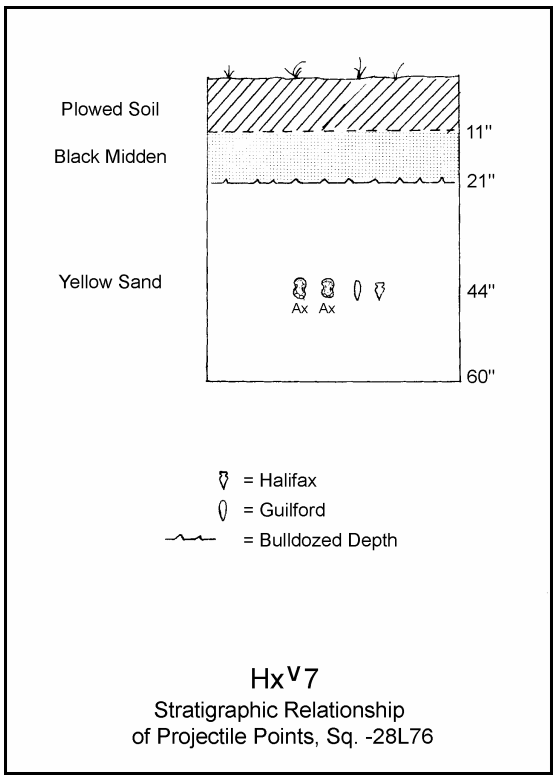


Figure 31. The stratigraphic relationship of projectile points in square -28L76 at the Gaston site.

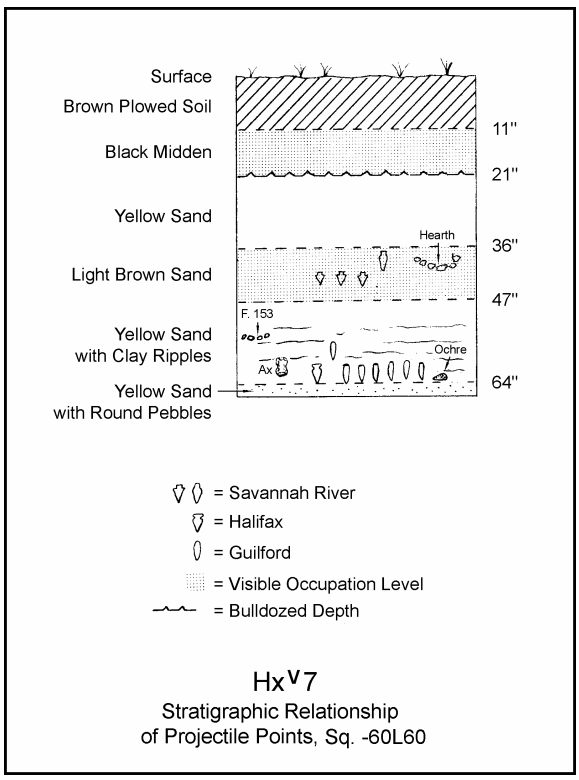


Figure 32. The stratigraphic relationship of projectile points in square -60L60 at the Gaston site.

The excavation of this square was begun by digging a trench along the east and south sides. This isolated two corners of the square in a block, so that the profile could be seen to aid in excavation of the square by levels. The approach to the excavation of this square is shown in Plate 48a; the strata are shown in Figure 32.

The discolored layer was not too easily seen on the side of the profile of the square, but appeared darker in some areas than in others. At this discolored level, between 36 and 47 inches, was found a hearth containing 59 rocks and a base of a Large Savannah River type projectile point. This hearth was just at the edge of the square on the west side, and a small alcove was excavated outside the square so as to include the hearth. This hearth is shown in Plate 51a. Charcoal was collected and used in sample M524 for radiocarbon dating.

Also found at the same level with the hearth were five projectile points and fragments. Three of these were of the Small Savannah River type, and the fourth was a Large Savannah River type base. The fifth fragment was the broken tip of a point and was not typed, but the material and technique of manufacture resembled the Savannah River type. Also found at this Savannah River level were seven abraded stones, and at the 51-inch level a pile of stones was found, but no charcoal.

After passing the 51-inch level, the percentage of chips decreased sharply until the 57-inch level was reached. The percentage of green slate chips increased at this point, and it was thought that this indicated another occupation level. At that time the association of green slate chips with the Guilford occupation level had not become as

a

b

Plate 48. The pre-pottery squares before excavation. A: The approach trench around square -60L60. The Guilford occupation level is a few inches below the bottom of the trench. B: Square -70L60 before excavation. The square holes are pits dug around excavated features to insure against contamination of the strata from the intrusive features.

obvious as it would later. At this point in the excavation of the square there occurred one of the most interesting incidents experienced during the project.

The square was being dug on Sunday and consequently there were approximately 100 people standing around the square watching the work. The excavating had reached a depth of almost five feet in the 10-foot square, and two sifters were being operated sifting yellow sand. The six inches between the 51-inch and 57-inch levels had been taken off in three-inch levels without the discovery of any artifacts—other than a few chips (Plate 48a).

To the crowd watching, this must have appeared as so much wasted effort, particularly since there were several men who kept remarking as to the futility and stupidity of it all. "How could there be anything down there that deep?" "Anyone could see that there would not be anything down there to find but sand."

I explained to them that if calculations were correct, some spear points of a particular size and shape would be found. I drew a sketch of a Guilford type projectile point in the sand, and pointed out that this was the object of the search. However, the spectators did not seem to be convinced.

Within a period of 30 minutes after that, six Guilford type projectile points and one Halifax type point were found at the 63-inch level. This feat of predicting what was coming, and then having the prediction proved in a dramatic manner, convinced the critics that those working were some sort of magicians, and they so informed the crowd for the remainder of the afternoon. That was a memorable day.

At the 61-inch level we found a chipped, notched ax, and at the 63-inch level found a large lump of worked red ocher, shown in Plate 40g. The square was continued to a depth of 68 inches, but chips were not found beyond the 63-inch depth. The chart in Figure 40 shows the chip and projectile point relationship in this square.

Excavation of Square -70L60 (Figure 33, Plate 48b)

Square -70L60 in Area F (Figure 22) contained some excavated pits and other intrusions. An area around each intrusion was cut out so that none of the intruded material remained. The square prepared for excavating is shown in Plate 48b.

This square was approached from square -60L60, and at the 36–49-inch level three Large Savannah River type projectile points were found. Also found at this same level was one Small Oval Blade.

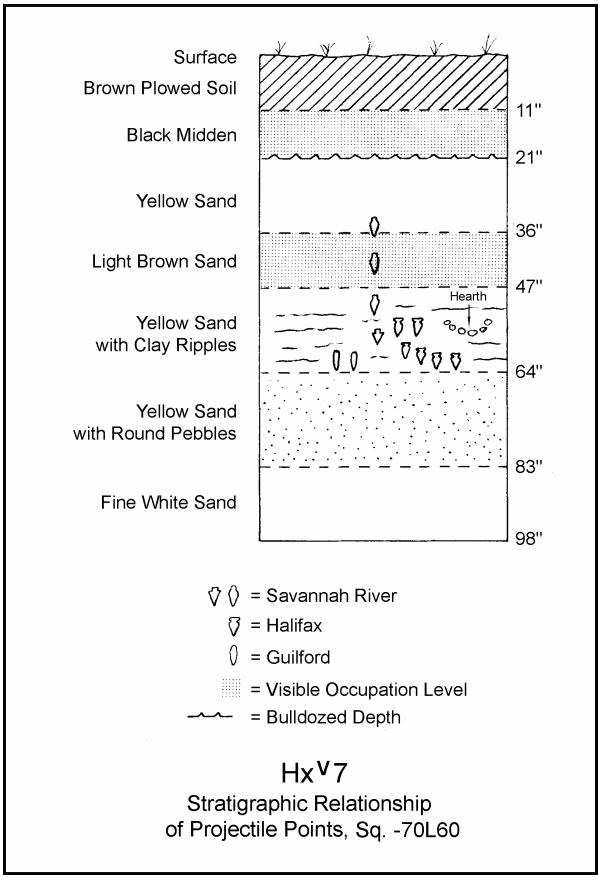


Figure 33. The stratigraphic relationship of projectile points in square -70L60 at the Gaston site.

At the 54-inch level a hearth was found, and lying among the rocks near the hearth were two Halifax type projectile points. The hearth is shown in Plate 49a, and a close-up of the points is shown in Plate 49b.

Other artifacts found in the 52–58-inch level are five Small Oval Blades, six Halifax projectile points, two Guilford type projectile points, one Small Savannah River type projectile point, and one abraded stone.

A concentration of white quartz stones was found at the same level as the hearth at the opposite side of the square.

Two Halifax type projectile points were found at a depth of 63 inches, the same depth as the Guilford points in the adjoining square, with the Halifax points 10 inches higher.

The square was excavated to a depth of nine feet in an effort to determine if further cultural material could be found deeper, but no chips appeared after a depth of 63 inches. One large abraded stone was found at a depth of 77 inches, the deepest artifact found on the site. The chip type relationships from this square are shown in Figure 40.

Excavation of Square -105R50 (Figure 34)

This square is located in Area G (Figure 23). A five-foot control square had been dug at -100R50 before the bulldozers cleared this area of the midden accumulation. Eight postmolds were found in the bottom of the five-foot control square, but after the bulldozer had passed over the area, nothing could be seen intruding into the subsoil. For this reason the area was chosen for a deep square to locate pre-pottery occupation levels. The method of excavation of these pre-pottery squares has already been described.

The midden accumulation at this part of the site was 14 inches in depth, and above this particular square the bulldozer cut to a depth of 24 inches. From this level down to the 36-inch level the sand was sterile of cultural material. At the 36-inch level, quartzite chips began to appear in the screen and continued to the 47-inch level.

Three Large Savannah River type projectile points were found in this level—one at the 41-inch level, one at 45-inch level, and one at the 47-inch level. Also found in this level from 36 to 47 inches were three Small Oval Blades and two Large Oval Blades. The square was dug to 66 inches, but no more chips were found below the 47-inch level.

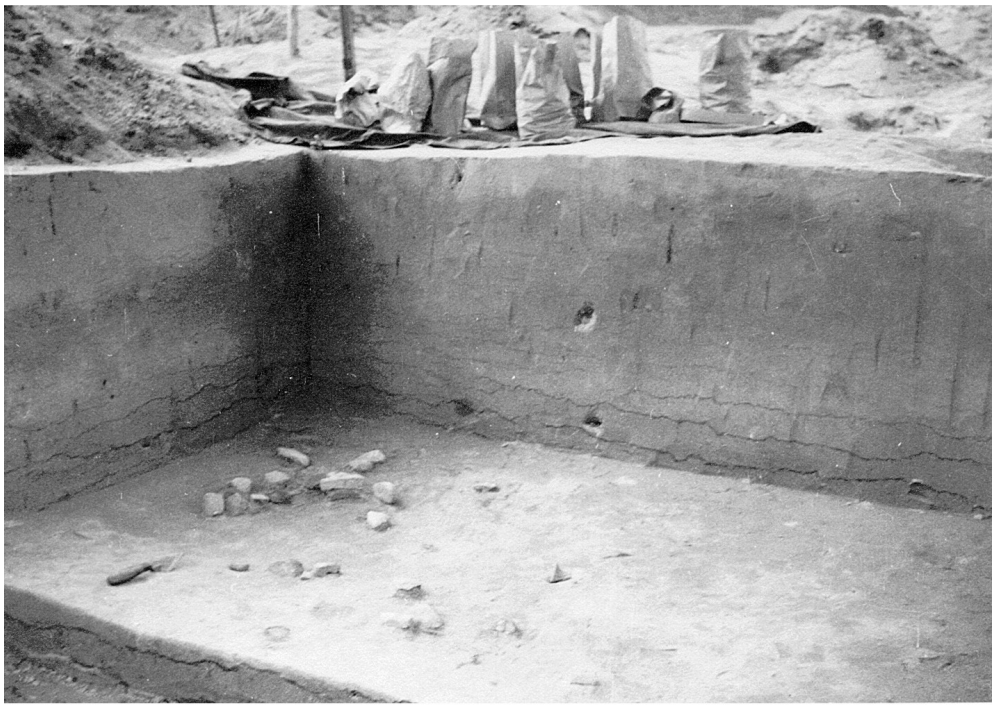
Excavation of Square 10L20 (Figure 35, Plates 50 and 51)

In order to save excavating time, the bulldozer was allowed to excavate the trench at Square 10L20 to a level of 38 inches. This eliminated necessity of digging through sterile sand to get to the Savannah River level.

From 38 to 49 inches, six large oval blades were found. No artifacts other than chips were found at this level. The chip analysis for this square is shown in the chart in Figure 40.

At the 58-inch level in this square, three hearths were found containing rocks. Charcoal from these hearths was collected to get a radiocarbon date for the Halifax material. Plate 50b shows hearths #1 and #3, and Plate 50b is a close-up of hearth #1, a discolored hearth area from which charcoal was collected.

Also found at the level with the hearths were three Halifax type projectile points and a flat stone with pits pecked into the surface. One hearth had two fragments of a broken mortar among the rocks in the hearth. Three abraded stones were found at this level, along with two Large Oval Blades.



a

b

Plate 49. The Halifax hearth in square -70L60. A: Fired hearth rocks, with charcoal in the sand around and beneath them having a radiocarbon date of 5,440 years ago. B: Close-up of the same hearth, showing two Halifax points in situ.

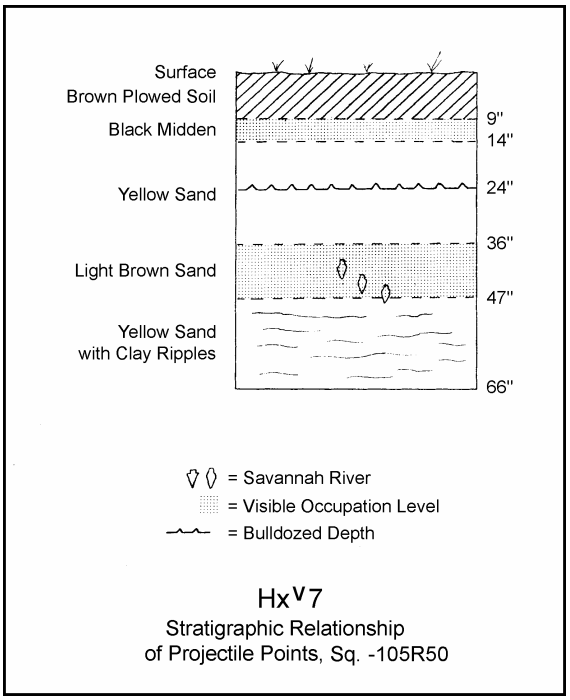


Figure 34. The stratigraphic relationship of projectile points in square -105R50 at the Gaston site.

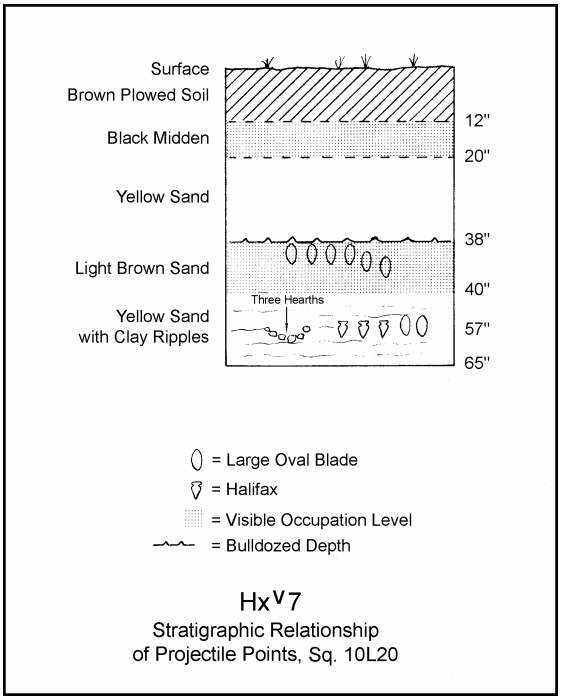


Figure 35. The stratigraphic relationship of projectile points in square 10L20 at the Gaston site.

After the hearths were removed and the soil washed for the charcoal, the excavation was continued below the 58-inch level. A noticeable decrease in white quartz chips was seen, with an increase in the percentage of green slate chips. It was hoped that in this square perhaps the Guilford type projectile points could be found directly underlying the Halifax types. The chips were there, but the points and hearths were not. The square was excavated to a depth of 67 inches.

See the discussion of chip and projectile point relationships, and the significance of the chip relationships in this square, in the section on pre-pottery projectile point types under the Guilford projectile point discussion.

Excavation of Square 60L10 (Figure 36 and Plate 51)

This square was bulldozed to a depth of 33 inches, and below this level there was four inches of sterile sand. At the 41-inch level three dark pit outlines appeared as the square was being shoveled and sifted. These dark discolorations were assigned feature numbers. Feature 191, when excavated, proved to be a hearth composed of 34 stones (Plate 51a). Charcoal from the area around the stones was collected for dating. A Large Savannah River type projectile point was found at the level of first appearance of the discoloration from the hearth, at the 41-inch level.

Feature 192-A appeared to be a pit, apparently a posthole, eight inches deep and 16 inches across. This feature contained nothing but the basal section of a Large Savannah River type projectile point and charcoal fragments.

a

b

Plate 50. Hearths at the Halifax level in square 10L20. A: Hearth #1 (left) and hearth #3 in square 10L20, 58-inch level, from which charcoal was collected, dating the Halifax culture at 5,440 years ago. B: Close-up of the discolored area at hearth #1 in square 10L20 at the Halifax level, from which charcoal was collected.

a

b

Plate 51. Hearths at the Savannah River and Guilford levels at the Gaston site. A: Hearth in square -60L60 at the 36–47-inch level, containing the base of a Savannah River projectile point. B: Hearth in square 60L10 at the 69-inch level, the same level with two Guilford projectile points.

Feature 193 appeared to be the bottom of a postmold. It was three inches deep and contained nothing but discolored soil.

These features all appeared below the river-deposited sterile sand and were not seen until the 41-inch level was reached.

After these features had been removed, the excavation of the square continued, and chips were found to a depth of 52 inches. For four inches no more chips appeared; a few appeared again between the 56-inch and 60-inch level. Instead of quartzite, felsite, and white quartz that had appeared in considerable numbers in the level between 37 and 52 inches, the chips here were of a greenish slate, the same type material that 61% of the Guilford type projectile points are made (Figure 40).

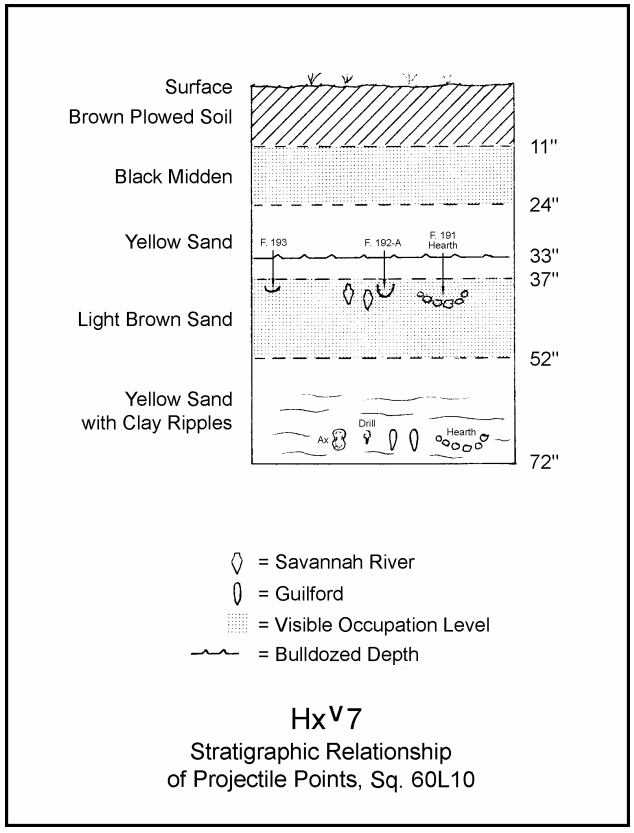


Figure 36. The stratigraphic relationship of projectile points in square 60L10 at the Gaston site.

As excavation continued in the 60-inch to 68-inch level, more of the green slate chips appeared, and at the 68-inch level we found two Guilford type projectile points, a broken chipped ax, a stone drill, and a hearth. The hearth is shown in Plate 51b and was at a depth of three feet below the bulldozed level of 33 inches. This hearth had three stones and contained wood charcoal and charred hickory nutshells.

Figure 40 shows the chip and projectile point relationship by levels from this square. As can be seen from this chart, the slate chips did not continue below the 68-inch level. The square was excavated to a depth of 72 inches.

CHAPTER 6

THE INTERPRETIVE ANALYSIS OF THE GASTON SITE

The Pottery Seriation Analysis of the Features

A seriation analysis of the features at the Gaston site was conducted similar to that for the sites in the basin. Two hundred features were excavated, and most of these were pits dug into the subsoil at the pottery level. There were a few features at the pre-pottery levels, and, of course, these were excluded from the present seriation. Some of these features contained no pottery, and others contained only a few sherds. These pits were not included in the seriation.

In the seriation of the sites, 70 sherds had been the criteria for selection of sites to be included. With the seriation of the features, two criteria were used. First, those features showing no intrusion from other pits were selected as being most likely to contain associated pottery (Figures 18–24j). From these features showing no intrusion, those features containing more than 50 sherds were selected. These are the features included in the pottery seriation shown in Figure 37. The assumptions and methodology of conducting a pottery seriation have been discussed previously.

Pottery Type Relationships from the Seriated Sequence of the Features

Figure 37 shows the seriated pottery type sequence of the features at the Gaston site. As was true with the seriation of the sites in the basin, the Vincent series types fall at a lower level on the chart than do the Clement series types. As the Clement Cord-marked type reaches its peak of popularity, there seems to be a gap that appears in the bars of the Clement Fabric Impressed type. Stratigraphic evidence tends to indicate that the Clement Fabric Impressed type is somewhat later than the Clement Cord-marked type, and perhaps this is represented in the gap in the Clement Fabric Impressed type bars. The Gaston Simple Stamped type occurs at the top and evidently represents the last Indian occupation of the site. Type II Cord-marked appears to be associated with the Clement series as it did in the seriation of the sites. The sherd counts and percentage totals for the various pottery types are presented in Table VIII.

The type Chickahominy Fabric Impressed is known to occur at the historic level, and therefore, Features 38 and 158 should perhaps be seriated much higher in the chart. However, the absence of any Gaston type sherds in these two pits makes the placing of them lower than that level. The Check Stamped sherds again appear to be associated with the Gaston pottery. Type I Fabric Impressed sherds appeared in considerable quantity in Feature 38 along with Chickahominy Fabric Impressed, which indicates further that this bar should be seriated at the late period, since Type I also appears late, being equated typologically with Clarksville pottery.

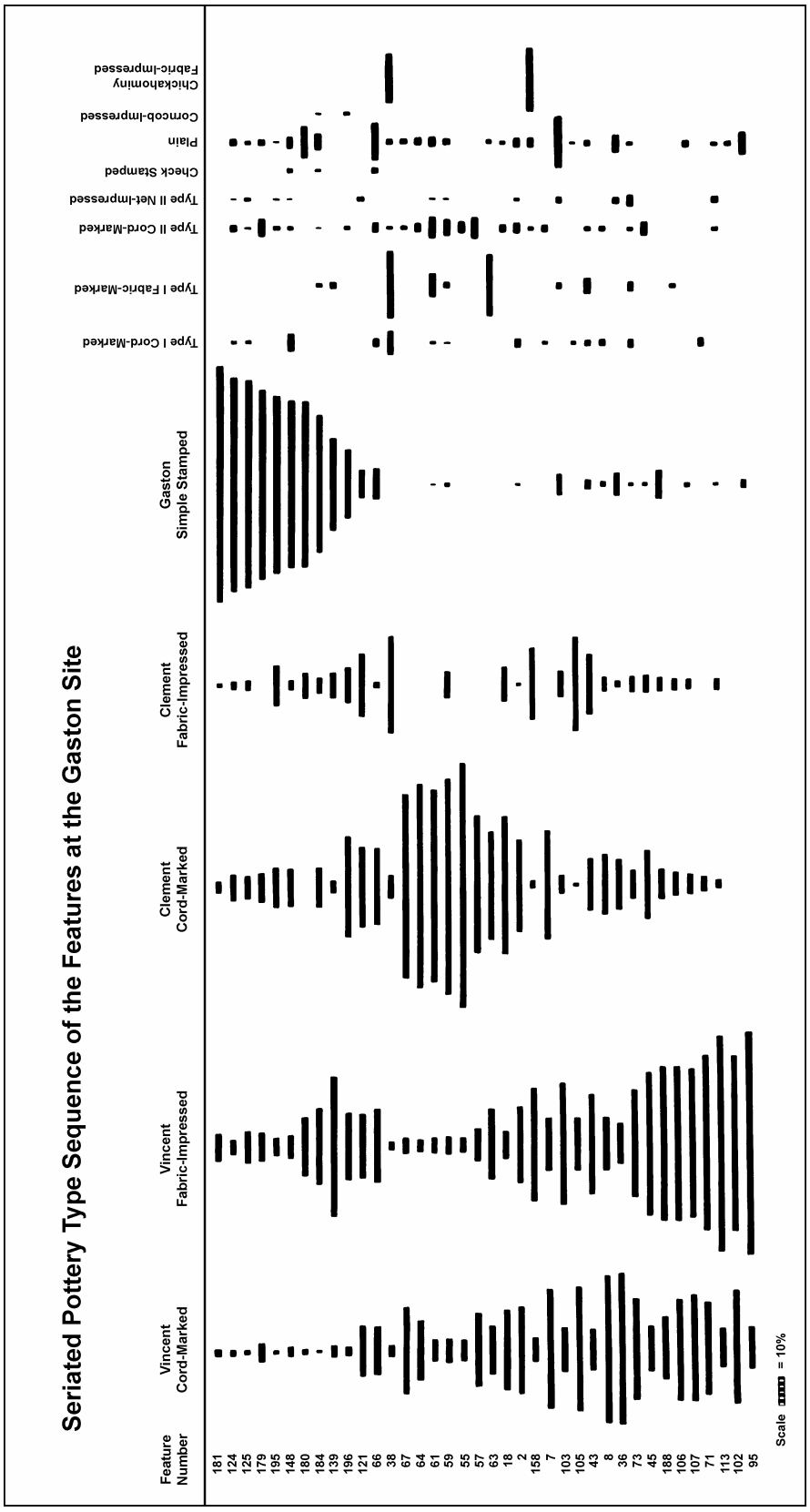


Figure 37. The seriated pottery type sequence of the features at the Gaston site.

Table VIII. Percentage Totals for the Features in the Pottery Seriation.

Fea. No.	Sherd Count	Vincent Cord	Vincent Fabric	Clement Cord	Clement Fabric	Gaston Simple Stamped	Type I Cord	Type I Fabric	Type II Cord	Net II	Check Stamped	Plain	Corncob Impressed	Chicka-hominy Fabric	Total %
181	173	2.3	8.7	4.0	1.7	83.3	-	-	-	-	-	-	-	-	100
124	343	2.3	5.3	9.0	2.6	74.7	1.2	-	2.3	0.6	-	2.0	-	-	100
125	229	1.3	10.9	7.9	3.4	73.4	0.9	-	0.4	0.9	-	0.9	-	-	100
179	50	6.0	10.0	10.0	-	66.0	-	-	6.0	-	-	2.0	-	-	100
195	209	1.4	5.7	14.4	14.4	62.1	-	-	1.0	0.5	-	0.5	-	-	100
148	1,062	3.6	8.0	13.2	3.4	58.5	6.2	-	1.3	0.1	1.8	3.9	-	-	100
180	55	1.8	20.0	-	9.1	58.2	-	-	-	-	-	10.9	-	-	100
184	225	0.8	26.2	14.3	5.3	47.5	-	1.3	0.4	-	0.8	2.6	0.8	-	100
139	93	4.3	48.4	4.3	8.6	32.2	-	2.2	-	-	-	-	-	-	100
196	99	3.0	23.2	35.4	12.1	24.3	-	-	1.0	-	-	-	1.0	-	100
121	72	16.7	22.2	27.8	22.2	9.7	-	-	-	1.4	-	-	-	-	100
66	219	16.0	24.7	26.5	1.8	10.5	2.7	-	3.2	-	1.8	12.8	-	-	100
38	119	4.2	2.5	8.4	34.5	-	8.4	22.7	0.8	-	-	1.7	-	16.8	100
67	188	28.7	4.8	63.8	-	-	-	-	1.1	-	-	1.6	-	-	100
64	113	20.3	4.4	70.8	-	-	-	-	2.7	-	-	1.8	-	-	100
61	139	7.2	5.0	66.9	-	0.7	0.7	7.9	7.3	0.7	-	3.6	-	-	100
59	196	8.2	6.2	64.8	9.2	1.0	0.5	2.0	5.6	0.5	-	2.0	-	-	100
55	138	7.2	5.1	84.8	-	-	-	-	2.9	-	-	-	-	-	100
57	84	25.0	10.7	57.2	-	-	-	-	7.1	-	-	-	-	-	100
63	106	16.0	24.5	37.8	-	-	-	20.8	-	-	-	0.9	-	-	100
18	83	26.5	9.6	48.2	12.0	-	-	-	2.4	-	-	1.3	-	-	100
2	168	29.2	25.6	32.1	1.2	1.2	3.0	-	3.5	1.2	-	3.0	-	-	100
158	103	7.8	38.8	1.9	25.3	-	-	-	1.0	-	-	2.9	-	22.3	100
7	82	40.2	18.3	37.8	-	-	1.3	-	2.4	-	-	-	-	-	100
103	53	15.1	41.5	5.7	9.4	7.5	-	1.9	-	1.9	-	17	-	-	100
105	238	42.4	17.6	1.9	37.0	-	0.8	-	-	-	-	0.8	-	-	100
43	143	14.0	33.6	17.5	21.0	3.4	2.1	4.9	1.4	-	-	2.1	-	-	100
8	56	50.0	17.9	21.4	5.5	1.8	1.8	-	1.8	-	-	-	-	-	100
36	51	51.0	13.7	17.6	2.0	7.8	-	-	-	2.0	-	5.9	-	-	100
73	71	33.8	36.6	9.9	5.6	1.4	2.8	2.8	1.4	4.3	-	1.4	-	-	100
45	67	14.9	49.3	23.8	6.0	1.5	-	-	4.5	-	-	-	-	-	100
188	57	21.1	52.6	10.5	5.3	10.5	-	-	-	-	-	-	-	-	100
106	78	33.3	52.5	7.7	3.8	-	-	2.7	-	-	-	-	-	-	100
107	158	36.1	50.6	7.0	3.2	1.3	-	-	-	-	-	1.8	-	-	100
71	71	31.0	60.6	5.6	-	-	2.7	-	-	-	-	-	-	-	100
113	98	13.3	74.3	3.2	4.2	1.0	-	-	1	2.0	-	1.0	-	-	100
102	61	37.7	60.7	-	-	-	-	-	-	-	-	1.6	-	-	100
95	206	13.6	75.7	-	-	2.9	-	-	-	-	-	7.8	-	-	100
Total	5,756														

Lewis Binford has reexamined the Vincent Fabric Impressed pottery from these features and concludes that the bulge represented at the late period in the Vincent Fabric column is the result of the inclusion in the Vincent Fabric type of sherds very similar typologically, but related to a much later time period than the true Vincent Fabric Impressed pottery.[1] This would account for the bulge at a late period. However, it is possible that this bulge is the result of intrusion or typing of Clement series sherds as Vincent, since the distinction is often hard to detect.

The Stratigraphic Relationship of the Pottery Types at the Gaston Site

Pottery percentages for eight squares are shown in Figure 38. These were deep enough to allow at least three levels to be excavated. Most of these squares had been disturbed to some extent by pits intruding into the subsoil.

The percentages of pottery types were computed two ways: by level (open bars) and by square (black bars). In studying the chart (Figure 38) and the "percentage by level" bars, one should ask, "Of all the sherds found at this level, what percentage was of this particular type?" In studying the "percentage by square" bars, one should ask, "Of all the sherds of this type found in this square, what percentage was found at this particular level?" The lines connecting the percentage bars were added to aid in visually interpreting the chart. The disturbed topsoil was dug in one level, and then a three-inch level was excavated. Then the remainder was excavated in six-inch levels, but in some squares four-inch levels were used. (See method of excavating pottery-control squares). The squares vary in depth between 13 and 24 inches.

One very obvious fact can be seen from this chart. This is the percentage occurrence of the Gaston pottery in the top levels. This also was very noticeable in the field. The position of the Gaston type in the top levels was used as the indicator for determining which end of the seriation charts should be at the top.

The difference between the Clement and Vincent types is not so clear as the position of the Gaston type. However, there is some indication for the higher position of the Clement series. This apparent confusion of the relationship between these types in these squares is seen as a result of considerable pit disturbance at the site. This situation will be clarified somewhat by a look at the stratigraphic relationship of the pottery types at the Thelma site (Figure 43), at which virtually no Gaston sherds, and only Clement and Vincent type sherds, were found. This absence of a major Gaston period occupation at the Thelma site resulted in fewer later intrusions into previous pits, allowing a clearer picture of the relationship between the Clement and Vincent types to be determined.

The occurrence of other types in levels at the Gaston site in such small amounts resulted in their being left off the chart presented here; however, the count by type for each level is tabulated in Table IX.

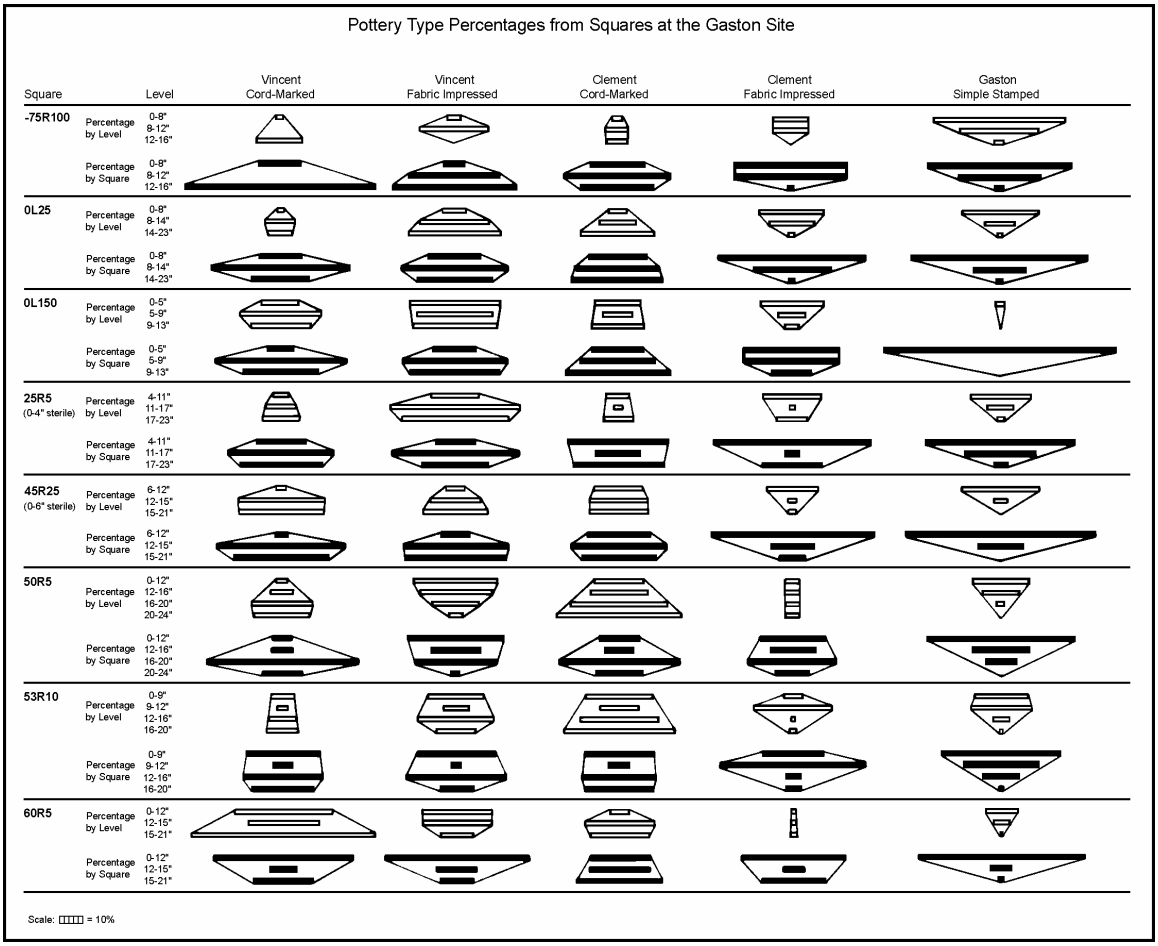


Figure 38. Pottery type percentages from squares at the Gaston site.

The Relationship Between the Artifacts and Pottery Types from the Features at the Gaston Site

The seriation chart of the features (Figure 37) was used as the basis from which to begin the analysis of artifacts from the features. Table X shows those features near the top of the seriated pottery sequence containing a high percentage of Gaston type sherds. The most predominant projectile point type associated with the Gaston pottery in these pits is the Clarksville point. The second most prevalent type is the Roanoke point. The Savannah River and Halifax types are pre-pottery, and therefore are known to be not associated with Gaston pottery; only the triangle types are represented outside of the "other" category. Other artifacts appearing significant in Table X are the clay pipes and bone awls. These objects are represented in sufficient numbers to indicate that they definitely are culturally associated with the Gaston pottery.

Table IX. Sherd Counts for Pottery Types in the Gaston Site Control Squares.

Square Number	Level	Vincent Cord	Vincent Fabric	Clement Cord	Clement Fabric	Gaston Simple Stamped	Type I Cord	Type I Fabric	Type II Cord	Type II Fabric	Net I	Net II	Check Stamped	Plain	Corncob Impressed	Total
(-)75R100	0–8"	2	4	3	10	37	-	2	-	-	-	-	-	7	2	67
	8–12"	-	18	6	10	21	-	2	-	-	-	-	-	4	-	61
	12–16"	9	24	4	1	2	2	1	2	-	-	-	-	-	-	45
0L25	0–8"	3	12	8	29	34	2	2	1	-	-	1	1	11	-	104
	8–14"	10	23	12	15	10	2	-	-	-	-	-	-	5	-	77
	14–23"	4	16	13	1	1	-	-	-	-	-	-	-	5	-	40
0L150	0–5"	7	13	9	12	2	1	1	-	-	-	-	-	-	-	45
	5–9"	35	33	13	12	-	-	-	5	-	-	-	-	1	-	99
	9–13"	20	28	18	5	-	-	3	4	-	-	-	-	-	-	78
25R5	4–11"	6	18	9	22	23	-	-	-	-	-	-	1	9	-	88
	11–17"	13	57	4	2	11	-	7	3	-	-	-	-	4	-	101
	11–23"	10	29	8	8	2	-	1	-	-	-	2	-	3	-	63
45R25	6–12"	6	11	30	31	47	-	-	-	-	-	-	1	16	-	142
	12–15"	68	40	46	8	11	-	-	1	-	-	-	-	8	-	182
	15–21"	49	38	35	5	-	-	-	3	-	-	-	-	7	-	137
50R5	0–12"	5	38	22	6	26	-	-	-	-	-	-	-	9	-	106
	12–16"	6	19	15	4	10	-	-	-	-	-	-	1	6	-	61
	16–20"	41	32	66	8	5	2	-	-	-	-	-	-	4	-	158
	20–24"	11	3	25	3	-	1	1	-	-	-	-	-	1	-	45
53R10	0–9"	12	29	35	9	27	-	-	-	-	-	-	-	7	-	119
	9–12"	3	7	11	22	17	-	-	-	-	-	-	-	5	-	65
	12–16"	13	36	37	2	8	1	-	11	-	-	-	-	1	-	109
	16–20"	10	12	34	2	1	2	-	3	-	-	4	-	2	-	70
60R5	0–12"	90	64	17	5	31	-	-	-	-	-	-	-	5	-	212
	12–15"	17	17	17	1	4	-	-	-	-	-	-	-	-	-	56
	15–21"	37	14	24	3	1	-	-	16	-	-	-	-	-	-	95

Table XI illustrates the artifacts associated with those features containing a high percentage of Clement type pottery. This chart is remarkable in the total lack of Clarksville type projectile points. The Roanoke type projectile point, however, appears to be undoubtedly associated with the Clement type pottery, since only one pre-pottery Halifax point is the only other point found in these pits besides the Large Triangle type, which probably represents the upper limit of the Roanoke type. No other significant correlations can be seen on the basis of the limited number of artifacts represented in any category.

Table XII represents the artifacts found in the features containing a high percentage of Vincent series pottery. The virtual absence of Clarksville points again illustrates the lack of association of this type with the earlier pottery types. The most predominant type again is the Roanoke point which, along with the Large Triangle type, represents the majority of points found in these pits. This is emphasized when it is known that the other types represented are mostly pre-pottery types. One projectile point that appears in these pits, but not in any of the Gaston or Clement pits, is the Thelma point, of which two specimens were found. This small stemmed point was found associated with Vincent type pottery at the Thelma site, and there it also appears in a Vincent associated context.

An increase is noted in the amount of abraded and pecked stone associated with the pits containing Vincent pottery. Another significant artifact appearing in numbers for the first time in these charts is the boatstone atlatl weight, of which five are represented from these Vincent pottery pits. Only one such artifact was found in the Clement pits, and none occurred in the features containing predominantly Gaston pottery.

Other features not included in the pottery seriation because they contained less than 50 sherds are shown in Table XIII. These features are also the ones having more than two projectile points, with the exception of Feature 4, which was included because it contained a boatstone atlatl weight. These features were found to contain Vincent–Clement type pottery, with three having Gaston sherds present in small amounts. It is interesting to note that two of these three also contained the Clarksville type projectile point, indicating again the Clarksville-Gaston association. Since these features are predominantly Vincent–Clement pits, it is not surprising that the Roanoke and Large Triangle type projectile points are again the most prevalent type. The decrease in the clay pipe fragment content of these pits is remarkable, indicating that perhaps the popularity of the clay smoking pipe was at a fairly late date in this area.

Table XIV illustrates the projectile point and blade types from the features according to the material from which they are made. White quartz appears to be the most popular material for the Clarksville and the Halifax points, while slate, followed by white quartz, is the most popular material for the Roanoke points. The Large Triangle and Crude Triangle types were mostly made of slate. Only one chert point was found. This chert point is classified under “other” and is illustrated in Plate 25a.

Table XV illustrates the areal distribution of the features excavated on the Gaston site according to the type of pottery in the pit. Nothing very conclusive can be stated on the basis of this analysis, but some trends appear to be evident. The location of pits containing different pottery types on different areas of the site may indicate a preference for those areas of the site for occupation during times when those types of pottery were being made.

Table X. Artifacts from Features at the Gaston Site Having a High Percentage of Gaston Pottery.

	Feature									
Artifact Type	**181**	**124**	**125**	**179**	**195**	**148**	**180**	**184**	**139**	**Total**
Projectile Points										
Clarksville	1	-	1	-	-	11	2	3	-	18
Roanoke	-	1	3	-	1	4	-	3	-	12
Large Triangle	-	1	-	-	1	1	-	-	-	3
Crude Triangle	-	-	-	-	2	-	-	-	-	2
Thelma	-	-	-	-	-	-	-	-	-	-
Small Savannah River	-	-	-	-	-	2*	-	-	-	2
Large Savannah River	-	-	-	-	-	-	-	-	-	-
Halifax	-	-	-	-	-	1	-	1	-	2
Guilford	-	-	-	-	-	-	-	-	-	-
Morrow Mountain	-	-	-	-	-	-	-	-	-	-
Small Oval Blade	-	-	-	-	-	-	-	-	-	-
Large Oval Blade	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	2	-	2
Sub-Total	1	2	4	0	4	19	2	9	0	41
Objects of Stone										
Abraded Stones	4	-	2	-	-	6	-	-	-	12
Pecked Stones	-	1	2	-	1	1	-	1	3	9
Center Pecked Stones	-	-	-	-	-	-	-	-	-	-
Pitted Stones	-	-	-	-	-	1	-	-	-	1
Steatite Sherds	-	-	2	-	1	4	1	-	-	8
Drilled Pebbles	-	-	-	-	-	1	-	-	-	1
Stone Drills	-	-	-	-	-	1	-	-	-	1
Grooved Stones	-	-	-	-	1	-	-	1	-	2
Celts	-	-	-	-	1	-	-	1	-	2
Pecked Axes	-	1	-	-	-	-	-	-	-	1
Ochre Fragments	-	-	-	-	-	-	-	-	-	-
Boatstone Atlatls	-	-	-	-	-	-	-	-	-	-
Objects of Clay										
Clay Pipes and Fragments	1	-	-	-	-	10	-	-	-	11
Daub Fragments	-	2	-	-	-	1	-	-	-	3
Dirt Dauber Nests	-	-	-	-	-	2	-	-	-	2
Objects of Bone										
Bone Awls	-	1	-	-	5	-	3	1	-	10
Worked Antler Tips	-	-	-	-	-	-	-	-	-	-
Bone Needles	-	-	-	-	-	-	-	-	-	-
Deer Toe Projectile Points	-	-	-	-	1	-	-	-	-	1
Bone Beamers	-	-	-	-	-	-	-	-	-	-
Total	6	7	10	0	14	44	6	13	3	105

* One was found in the yellow sand in the wall of the pit.

Table XI. Artifacts from Features at the Gaston Site Having a High Percentage of Clement Pottery.

	Feature												
Artifact Type	**198**	**121**	**66**	**38**	**67**	**64**	**61**	**59**	**55**	**57**	**63**	**18**	**Total**
Projectile Points													
Clarksville	-	-	-	-	-	-	-	-	-	-	-	-	-
Roanoke	4	-	3	2	1	1	1	-	-	-	-	-	12
Large Triangle	1	-	1	1	-	-	-	-	-	-	2	-	5
Crude Triangle	-	-	-	-	-	-	-	-	-	-	-	-	-
Thelma	-	-	-	-	-	-	-	-	-	-	-	-	-
Small Savannah River	-	-	-	-	-	-	-	-	-	-	-	-	-
Large Savannah River	-	-	-	-	-	-	-	-	-	-	-	-	-
Halifax	-	1	-	-	-	-	-	-	-	-	-	-	1
Guilford	-	-	-	-	-	-	-	-	-	-	-	-	-
Morrow Mountain	-	-	-	-	-	-	-	-	-	-	-	-	-
Small Oval Blade	-	-	-	-	-	-	-	-	-	-	-	-	-
Large Oval Blade	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
Sub-Total	5	1	4	3	1	1	1	0	0	0	2	0	18
Objects of Stone													
Abraded Stones	-	-	-	2	-	-	1	1	-	-	-	2	6
Pecked Stones	1	-	-	5	-	-	-	-	-	-	-	-	6
Center Pecked Stones	-	-	-	2	-	-	-	-	-	-	-	-	2
Pitted Stones	-	-	-	1	-	-	-	-	-	-	-	-	1
Steatite Sherds	-	-	-	-	-	-	-	-	-	-	-	-	-
Drilled Pebbles	-	-	1	-	-	-	-	-	-	-	-	-	1
Stone Drills	-	1	-	1	-	-	-	-	-	-	-	-	2
Grooved Stones	-	-	-	-	-	-	-	-	-	-	-	-	-
Celts	-	-	-	-	-	-	-	-	-	-	-	-	-
Pecked Axes	-	-	-	-	-	-	-	-	-	-	-	-	-
Ochre Fragments	-	-	-	-	-	-	-	-	-	-	-	-	-
Boatstone Atlatls	1	-	-	-	-	-	-	-	-	-	-	-	1
Objects of Clay													
Clay Pipes	-	-	-	-	-	-	-	-	-	-	-	-	-
Daub Fragments	-	2	-	-	-	-	-	-	-	-	-	-	2
Dirt Dauber Nests	-	-	-	-	-	-	-	-	-	-	-	-	-
Objects of Bone													
Bone Awls	-	-	-	6	-	-	-	-	-	-	-	-	6
Worked Antler Tips	-	-	-	-	-	-	-	1	-	-	-	-	1
Bone Needles	-	-	-	-	-	-	-	-	-	-	-	-	
Deer Toe Projectile Points	-	-	-	2	-	-	-	-	-	-	-	-	2
Bone Beamers	-	-	-	2	-	-	-	-	-	-	-	-	2
Table	7	4	5	24	1	1	2	2	0	0	2	2	50

Table XII. Artifacts from Features at the Gaston Site Having a High Percentage of Vincent Pottery.

	Feature																	
Artifact Type	**2**	**158**	**7**	**103**	**105**	**43**	**8**	**36**	**73**	**45**	**188**	**106**	**107**	**71**	**113**	**102**	**95**	**Total**
Projectile Points																		
Clarksville	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Roanoke	1	-	1	-	3	3	2	-	1	-	-	-	3	1	5	1	2	23
Large Triangle	1	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	3	6
Crude Triangle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thelma	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	2
Small Savannah River	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Large Savannah River	1	-	-	2	-	-	-	-	-	-	-	-	1*	-	-	-	-	4
Halifax	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Guilford	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	2	4
Morrow Mountain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Small Oval Blade	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Large Oval Blade	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Other	-	-	1	-	1	-	-	-	-	-	-	-	-	-	1	-	-	3
Sub-Total	4	0	2	4	5	4	2	0	2	0	0	1	5	1	6	2	7	45
Objects of Stone																		
Abraded Stones	1	-	-	1	1	-	-	4	-	-	-	1	3	1	3	2	-	17
Pecked Stones	3	1	-	3	-	-	-	-	-	-	3	-	2	-	3	2	-	17
Center Pecked Stones	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	2
Pitted Stones	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Steatite Sherds	-	-	-	1	-	-	-	-	-	-	-	3	-	-	-	1	-	5
Drilled Pebbles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stone Drills	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4
Grooved Stones	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Celts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pecked Axes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ochre Fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Boatstone Atlatl Weights	-	-	-	-	2	1	1	1	-	-	-	-	-	-	-	-	-	5
Objects of Clay																		
Clay Pipes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Daub Fragments	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	1	-	10
Dirt Dauber Nests	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Objects of Bone																		
Bone Awls	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	3
Worked Antler	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2
Bone Needles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Deer Toe Projectile Points	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bone Beamer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	11	3	2	9	17	5	3	5	2	0	4	5	10	2	12	9	11	111

*Found in the yellow sand in the side of the pit.

Table XIII. Artifacts from Features Not Included in the Pottery Seriation Chart That Contained Clement-Vincent Type Pottery.*

	Feature												
Artifact Type	**4**	**9**	**14**	**26****	**28**	**29**	**47**	**48**	**118**	**126**	**199****	**200**	**Total**
Projectile Points													
Clarksville	-	-	-	1	-	1	-	-	-	-	2	-	4
Roanoke	1	6	2	2	6	3	3	3	-	2	-	2	30
Large Triangle	-	4	-	-	-	2	1	-	2	2	1	-	12
Crude Triangle	-	-	1	-	-	-	-	-	-	-	1	-	2
Thelma	-	-	-	-	-	-	-	-	-	-	1	-	1
Small Savannah River	-	-	-	-	-	-	-	-	-	-	-	-	-
Large Savannah River	-	1	-	-	-	-	-	-	-	-	1	-	2
Halifax	-	-	-	-	-	-	-	-	-	-	-	-	-
Guilford	-	-	-	-	-	-	-	-	-	-	-	-	-
Morrow Mountain	-	-	-	-	-	-	-	-	1	-	-	-	1
Small Oval Blade	-	3	-	-	-	-	-	-	-	-	-	-	3
Large Oval Blade	-	-	2	-	-	-	-	-	-	-	-	-	2
Other	-	-	-	-	-	-	-	-	-	-	-	1	1
Sub-Total	1	14	5	3	6	6	4	3	3	4	6	3	58
Objects of Stone													
Abraded Stones	3	-	2	-	-	1	-	-	-	-	1	1	8
Pecked Stones	-	-	4	-	-		1	2	-	-	2	-	9
Center Pecked Stones	-	2	-	-	-	-	-	1	-	-	-	-	3
Pitted Stones	1	-	-	-	-	-	-	-	-	1	-	-	2
Steatite Sherds	-	1	-	1	-	-	-	-	-	-	-	1	3
Drilled Pebbles	-	-	-	-	-	-	-	-	-	-	-	-	-
Stone Drills	1	-	-	-	-	-	-	-	-	-	-	-	1
Grooved Stones	-	-	-	-	-	-	-	-	-	-	-	-	-
Celts	-	-	-	-	-	-	-	-	-	-	-	-	-
Pecked Axes	-	-	-	-	-	-	-	-	-	-	-	-	-
Ochre Fragments	-	-	-	-	-	-	-	-	-	-	-	-	-
Boatstone Atlatls	1	-	-	-	-	-	-	-	-	-	-	-	1
Objects of Clay													
Clay Pipes	-	-	-	-	-	1	-	-	-	-	-	-	1
Daub Fragments	-	-	-	1	-	-	-	1	-	-	1	-	3
Dirt Dauber Nests	-	-	-	-	-	-	-	-	-	-	-	-	-
Objects of Bone													
Bone Awls	-	-	-	-	1	1	-	1	-	-	1	-	4
Worked Antler Tips	-	1	-	-	-	1	-	-	-	-	-	-	2
Bone Needles	-	-	-	-	-	-	-	1	-	-	-	-	1
Deer Toe Projectile Point	-	-	-	-	-	-	-	-	-	-	-	-	-
Bone Beamers	-	-	-	-	-	1	-	1	-	-	-	-	2
Fishhooks	-	1	-	-	-	-	-	-	-	-	-	-	1
Total	7	19	11	5	7	11	5	10	3	5	11	5	99

*Features included in this table, except Feature 4, have less than 50 sherds and more than two projectile points.

**These features contained a small amount of Gaston type pottery.

Table XIV. Projectile Points from Features at the Gaston Site by Type of Stone.*

Artifact Type	Type of Stone: Slate	Quartzite	White Quartz	Crystal Quartz	Felsite	Chert	Side of Pit**	Total
Projectile Points								
Clarksville	7	2	12	1	-	-	-	22
Roanoke	52	9	31	-	-	-	-	92
Large Triangle	21	5	7	-	-	-	-	33
Crude Triangle	4	1	1	-	-	-	-	6
Thelma	1	-	2	-	-	-	-	3
Small Savannah River	-	-	-	-	-	-	1 (slate)	1
Large Savannah River	-	4	2	-	1	-	1 (quartzite)	8
Halifax	-		3	-	-	-	-	3
Guilford	1	1	2	-	1	-	-	5
Morrow Mountain	-	1	-	-	-	-	-	1
Blades								
Small Oval Blade	4	-	1	-	-	-	-	5
Large Oval Blade	-	-	3	-	-	-	1 (quartzite)	4
Other	-	1	5	-	-	1	-	7
Total	89	24	69	1	2	1	3	190

*This table represents the total projectile points from all features at the Gaston site.
**Side of Pit = Object from the side of the pit, but not associated with the fill dirt in the pit.

Table XV. Areal Distribution on the Gaston Site of the Seriated Features by the Predominant Pottery Type in the Feature.

Site Area	Predominant Pottery Type: Vincent Pottery Feature Count	%	Clement Pottery Feature Count	%	Gaston Pottery Feature Count	%
Areas D through H (At the south and western edge of the site)	10	58.8	0	-	0	-
Areas A and A' (At the north-center edge of the site)	1	5.9	1	8.4	5	55.5
Areas B, I and C (At the northeastern edge of the site)	6	35.3	11	91.6	4	44.5
Total	17	100	12	100	9	100

From Table XV it can be seen that almost 60% of the Vincent type pits were located at the southern and western edges of the Gaston site. This may indicate a preference for these areas during the earlier occupation of the site. It is notable that no features containing Clement or Gaston pottery in any large amounts were found in this particular area. Of the Clement type features 91% were located at the northeastern edge of the site along the river, and the Gaston pits seem to be concentrated at the north-central and northeastern edge of the Gaston site. It is interesting to note that 55% of the Gaston type pits occur inside the area of the stockade wall at the north central part of the site. These trends may indicate settlement patterns, but they also may be the result of the particular areas excavated.

Analysis of Bone Material from Features at the Gaston Site

A detailed examination and identification of all bone material recovered during excavation of the Gaston site was undertaken by Dr. F. S. Barkalow of the Zoology Department at North Carolina State College in Raleigh. Aided by students James R. Davis and Walter C. Biggs, Dr. Barkalow identified the mammal material according to the scientific and common names.[2]

A variety of animals, from elk to moles, were represented in the bone from the "garbage pits" at the Gaston site. A complete report by Dr. Barkalow is presented in Appendix B. The following is a list of the animals by their common name that were represented by the bone material from the Gaston features. The numbers after the name indicate the number of times bones of this animal appeared in pits.

Beaver	14	Opossum	12	Bird	8
Deer	57	Otter	11	Catfish	2
Dog	20	Rabbit	5	Garfish	1
Elk	5	Raccoon	23	Fish	22
Fox Squirrel	2	Spotted Skunk	5	Turtle	38
Gray Fox	3	Striped Skunk	2	Box Terrapin	1
Gray Squirrel	5	Woodchuck	4	Marine Shell	-
Mole	2	Turkey	25	Mussels	-
Muskrat	25	Canada Goose	3	Snails	-

The most frequently appearing animal bones in the features were deer, dog, muskrat, raccoon, beaver, opossum, otter, turkey, and turtle.

The appearance of the dog in features might appear that it was a popular food item; however, half of the features containing dogs appeared to have been dog burials. These features are discussed in the section of this report describing the features from the Gaston site (see Chapter 5).

In order to determine if there was any noticeable difference in the animals in pits at different time periods, Table XVI was made using the features included in the pottery seriation of the features from the Gaston site (see Figure 37). This table takes the features that are predominantly of the Vincent series, Clement series, and Gaston type, and compares the occurrence of the animals from the same features. If animals utilized at the time of the popularity of Vincent type pottery were different from those hunted at the time the Gaston pottery was popular, this should show up in the table. No apparent correlation between animal bone and pottery type can be seen, however. Compared to

Table XVI. Gaston Site Animal Bone by Pottery Series in the Features.*

Feature	Deer	Beaver	Woodchuck	Grey Squirrel	Rabbit	Muskrat	Raccoon	Opossum	Skunk	Elk	Fox Squirrel	Dog	Box Terrapin	Turtle	Goose	Turkey	Mole	Gar Fish	Fish	Bird	Catfish	Striped Skunk
Gaston Series Pottery Features																						
181	x	-	-	-	-	-	-	-	-	-	-	-	-	x	-	x	-	-	-	-	-	-
124	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-
125	-	-	-	-	-	-	-	-	-	-	-	-		-	-	x	-	-	-	-	-	-
195	x	-	-	x	x	x	-	-	-	-	-	-	x	-	-	x	-	-	-	x	-	-
148	x	-	-	-	-	x	x	-	-	-	-	-	-	x	-	x	-	-	x	x	-	-
180	x	-	-	x	x	-	x	x	-	-	-	x	-	x	-	-	-	-	x	x	-	-
184	x	x	x	-	-	-	-	-	-	-	-	-	-	x	-		-	-	x	-	-	x
Clement Series Pottery Features																						
38	x	-	-	-	-	x	-	-	-	-	-	-	-	-	x	-	-	-	-	x	-	-
67	x	-	-	-	-	-	-	-	-	-	-	-	-	x	-	x	-	-	-	-	-	-
59	x	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-
55	x	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	x	-	-
57	x	x	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-
Vincent Series Pottery Features																						
105	x	x	-	-	-	x	x	x	x	x	-	x	-	-	-	x	x	-	x	x	-	-
158	x	-	-	-	-	-	-	-	-	-	-	-	-	x	-	x	-	-	-	x	-	-
43	x	x	-	-	-	x	x	x	x	-	-	-	-	x	-	x	-	-	x	x	-	-
8	-	-	-	-	-	x	-	-	-	-	x	-	-	-	-	-	-	x	x	-	x	-
2	x	x	x	-	-	-	x	x	-	-	-	-	-	x	-	x	-	-	x	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-
45	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	x	x	-	-
102	x	-	-	-	-	-	x	-	-	-	-	x	-	x	-	-	-	-	x	-	-	-
95	x	-	-	-	-	-	x	-	-	-	-	-	-	x	-	x	-	-	x	x	-	-

* x = animal bone present.

the Gaston type features, a much higher percentage of the Vincent type features did not contain any bone.

From this table it would appear that all the animal types were perhaps hunted throughout the entire span of the pottery history of the site. If there were major differences in animal life between the pottery periods, it is not revealed in this study.

From the wide variety of animal bone represented in pits at the Gaston site, it would appear that hunting constituted the major means of getting food. This is supported by the lack of evidence for the use of corn—the only evidence at all being the presence of a few corncob-impressed sherds, known to occur at a very late time horizon.

Interpretive Summary of Projectile Point Relationships in the Pottery Levels at the Gaston Site

Projectile point and blade relationships in this survey are of considerable importance as a result of excellent stratigraphic evidence recovered from excavation of the Gaston and Thelma sites. The interpretation of these relationships can best be accomplished by a discussion of each type and its relationship to the others.

Clarksville

Seventy-five percent of the Clarksville type points occurred in the plowed soil in the excavated squares at the Gaston site (Table XVII). The remainder, except one, were found in the second level. One Clarksville point was found in the fourth level, but from the position of the majority, this can be discounted as an intrusion. This occurrence in the top level of the excavated squares indicates a late time period for the occupation of the site by the makers of this small triangular point. Several other factors combine to make this conclusion final. The Clarksville projectile point was definitely made by the last Indian occupants in the basin.

The association of the Clarksville points with the Gaston Simple Stamped pottery is conclusive. This is indicated in Figure 38, which shows the Gaston type pottery as falling stratigraphically in the top level of the excavated squares. This association is further illustrated in Tables X through XIII, which show a division of the artifacts from features at the Gaston site according to pottery types that are predominant in those features. From those features in which the Gaston type pottery predominates, there are 18 Clarksville points. From those pits in which the Vincent and Clement pottery types predominate, there are no Clarksville points.

Further evidence indicating the association of the Gaston pottery with the Clarksville projectile points is shown in Table XXIII, which tabulates the projectile points from excavated levels at the Thelma site. None were found in the excavated squares, and if the association with Gaston pottery is valid, then no Gaston pottery should be present. Out of 3,343 sherds from levels at the Thelma site, only two were of the Gaston type. The almost complete absence of Gaston sherds and Clarksville points at the Thelma site, along with the other evidence cited, indicates conclusively the association between the latest pottery type in the area and the Clarksville type projectile point.

Table XVII. Gaston Site Projectile Points from Pottery Levels.*

Projectile Points Level	Type of Stone Slate	Quartzite	White Quartz	Crystal Quartz	Felsite	Total	Type %
Clarksville							
Level 1	4	-	29	1	-	34	75.6
Level 2	-	-	10	-	-	10	22.2
Level 3	-	-	-	-	-	0	-
Level 4	1	-	-	-	-	1	2.2
All Levels	5	-	39	1	-	45	100.0
Roanoke							
Level 1	10	3	16	-	-	29	31.2
Level 2	10	2	19	3	1	35	37.6
Level 3	10	-	11	-	-	21	22.6
Level 4	4	-	4	-	-	8	8.6
All Levels	34	5	50	3	1	93	100.0
Large Triangle							
Level 1	3	1	-	-	-	4	44.5
Level 2	1	-	-	-	-	1	11.1
Level 3	3	-	-	-	-	3	33.3
Level 4	1	-	-	-	-	1	11.1
All Levels	8	1	-	-	-	9	100.0
Crude Triangle							
Level 1	2	-	3	-	-	5	62.5
Level 2	1	-	1	-	-	2	25.0
Level 3	-	-	-	-	-	0	-
Level 4	1	-	-	-	-	1	12.5
All Levels	4	-	4	-	-	8	100.0
Thelma (Small, Stemmed)							
Level 1	-	-	-	-	-	0	-
Level 2	1	-	-	-	-	1	25.0
Level 3	1	-	1	-	1	3	75.0
Level 4	-	-	-	-	-	0	-
All Levels	2	-	1	-	1	4	100.0
Halifax**							
Level 1	1	-	-	-	-	1	6.25
Level 2	-	-	-	-	-	0	-
Level 3	-	-	-	-	-	0	-
Level 4	-	1	-	-	-	1	6.25
All Levels	1	1	-	-	-	2	12.50**
Large Oval Blade***							
Level 1	-	-	-	-	1	1	7.15
Level 2	-	-	-	-	-	0	-
Level 3	-	-	-	-	-	0	-
Level 4	-	1	-	-	-	1	7.15
All Levels	-	1	-	-	1	2	14.30***
Other	-	-	1	-	-	1	100.00

* See Figure 39 for chart abstracted from these data.
** See Table XX for additional 87.5% of Halifax projectile points from pre-pottery levels 5–7.
*** See Table XX for 85.7% of Large Oval Blades in pre-pottery levels 5–7.
Note: Level 1 = 0–11", Level 2 = 11–16", Level 3 = 16–20", and Level 4 = 20–24".

Roanoke

The Roanoke type points were found in all four pottery levels at the Gaston site, but the highest percentage was found in the second level (Table XVII). If the percentages for the bottom three levels at the Gaston site are totaled, it is seen that 68% of the Roanoke points are found below the plowed soil, in level 1. This is an inverse ratio of the Clarksville type points. From these figures it would seem that the association of the Roanoke type points is with the Clement-Vincent pottery. Tables X through XIII show the artifacts from features at the Gaston site according to the predominant pottery types in the features. This indicates that half the Roanoke type points from the features used in the pottery seriation were associated with Vincent type pottery. The conclusion that can be drawn from this is that the Roanoke type point had a time span of popularity, as the predominant type, that extended from the first occupation of the sites in the basin by pottery-making people until it was joined by the Clarksville type projectile point at a much later time.

This complete association of the triangle type projectile points with pottery periods is being demonstrated time and again in careful archaeological studies. It would seem that the time has come to cease trying to correlate collections of well-known pre-pottery projectile point types with obviously later collections of sherds that happened to be associated with them on the surface. More will be said of this matter later.

Joffre Coe has found the association of Roanoke type points with pottery types predating the Clarksville type points in his work in the Clarksville area.[3]

Large Triangle

The Large Triangle type does not appear in large enough numbers in any stratified context to enable many conclusions as to its position in relation to the other triangle types. However, since 11 out of the 14 such points found in features were found either with Clement or Vincent type pottery features, they would seem to have a time span similar to the Roanoke type points.

Table XVIII illustrates the level at which the various other artifacts in the pottery levels were found. The distribution of those types through all levels in small amounts prevents any significant conclusions being drawn from their position. The various abraded and pitted stone types apparently had a considerable time span, being found through all pottery levels as well as in the pre-pottery ones.

Table XIX lists the artifacts found in squares containing levels 3 and 4 only, with levels 1 and 2 having been removed by the bulldozer. In these levels it is notable that very few Clarksville type points were found, which supports the evidence previously cited for their appearance primarily in the plowed soil. The totals for the artifacts found "after scraper" while following the road scraper and bulldozer also are presented in this table, along with the total for the "slump off the bank" at square 60R5.

Interpretive Summary of the Pre-Pottery Artifact Relationships at the Gaston Site

The projectile points and blades found in a stratified pre-pottery context at the Gaston site are shown in Figure 39, in their stratigraphic relationship. Chapter 5, which describes the method of excavating the pre-pottery levels at the Gaston site, contains a

Table XVIII. Artifacts from Pottery Levels at the Gaston Site.

Artifact Type	Count	Artifact Type	Count	Artifact Type	Count
STONE OBJECTS		**Steatite Sherds**		**Pecked Axes**	
Abraded Stone		Level 1	2	Level 3	1
Level 1	4	Level 2	3	**Stone Pipe Fragments**	
Level 2	10	Level 3	5	Level 1	1
Level 3	7	Level 4	8		
Level 4	1	Total	18	**CLAY OBJECTS**	
Total	22	**Celts and Fragments**		**Clay Pipes and Fragments**	
Pecked Stone		Level 2	1	Level 1	6
Level 1	6	Level 3	1	Level 2	2
Level 2	8	Total	2	Level 3	2
Level 3	9	**Boatstones and Fragments**		Total	10
Level 4	4	Level 1	1	**Daub Fragments**	
Total	27	Level 2	1	Level 2	2
Center Pecked Stone		Level 3	1	Level 4	6
Level 1	2	Level 4	1	Total	8
Level 3	1	Total	4		
Total	3	**Drilled Stone Gorgets**		**BONE OBJECTS**	
Pitted Stone		Level 2	2	**Bone Beamer**	
Level 1	2	Level 3	1	Level 2	1
		Total	3		

Note: Level 1 = 0–11", Level 2 = 11–16", Level 3 = 16–20", and Level 4 = 20–24".

series of figures illustrating the relative position of the projectile points and blades found in that particular square (Figures 29 through 36). Table XX shows the total percentage relationship by levels.

The discussion of the relationships of the projectile points and blades found in the stratified layers at the Gaston site can best be presented by a consideration of each level containing artifacts. The level will be referred to by the name of the type of projectile point found at that level.

The black sand, humus, midden, sherd-bearing, and artifact-bearing accumulation representing the occupation of the Gaston site by pottery-making people seldom exceeded 24 inches in depth. Near the bottom of this level the soil color changed from black to brown as the yellow sand base, upon which this accumulation was deposited, was reached. This clean layer of yellow sand was free of any pebble, chip, or anything other than sand, and it extended to a depth of 37 inches from the surface. At this point a brown sand layer, averaging 10 inches in thickness, was found. (See Plate 47 for a photograph of a soil profile at the Gaston site.) This layer formed a distinct darker layer between lighter sand above and below. Its depth averaged from 37 to 47 inches from the surface. This layer contained Savannah River type projectile points and Large Oval Blades, and is referred to as the Savannah River Level.

Table XIX. Gaston Site Artifacts from Squares with Levels 3 and 4 Only, Those Found Following the Scraper, and from the Bank Slump at 60R5.

	Squares With Levels 3 and 4 Only					Found After Scraper				Bank at 60R5			
Artifact Type	**Slate**	**Quartz-ite**	**White Quartz**	**Chert**	**Total**	**Slate**	**Quartz-ite**	**White Quartz**	**Total**	**Slate**	**Quartz-ite**	**White Quartz**	**Total**
Projectile Points and Blades													
Clarksville	1	-	2	-	3			8	8	-	-	2	2
Roanoke	11	3	5	1	20	6	5	22	33	3	1	4	8
Large Triangle	1	3	-	-	4	2	1	1	4	-	-	-	-
Crude Triangle	-	-	-	-	-	2	-	4	6	-	-	1	1
Small Stemmed (Thelma)	-	-	-	-	-	1	-	-	1	1	-	-	1
Halifax	-	-	-	-	-	1	-	-	1	-	-	-	-
Morrow Mountain	1	1	-	-	2	-	-	-	-	-	-	-	-
Small Oval Blade	4	-	-	-	4	-	-	-	-	-	-	-	-
Large Oval Blade	-	-	-	-	-	2	2	-	4	-	-	-	-
Other	-	-	2	-	2	2	-	3	5	-	-	-	-
Total					35				62				12
Objects of Stone													
Abraded Stones	-	-	-	-	8	-	-	-	36	-	-	-	2
Pecked Stones	-	-	-	-	18	-	-	-	30	-	-	-	-
Center Pecked Stones	-	-	-	-	-	-	-	-	16	-	-	-	-
Pitted Stones	-	-	-	-	2	-	-	-	5	-	-	-	-
Steatite Sherds	-	-	-	-	1	-	-	-	8	-	-	-	1
Celts and Fragments	-	-	-	-	1	-	-	-	8	-	-	-	-
Atlatl Fragments	-	-	-	-	1	-	-	-	2	-	-	-	-
Boatstones and Fragments	-	-	-	-	2	-	-	-	1	-	-	-	1
Stone Drills	-	-	-	-	-	-	-	-	1	-	-	-	-
Pecked Stone Balls	-	-	-	-	-	-	-	-	2	-	-	-	-
Sinew Stone	-	-	-	-	-	-	-	-	1	-	-	-	-
Stone Platform Pipe	-	-	-	-	-	-	-	-	1	-	-	-	-
Total					33				109				4
Objects of Clay													
Clay Pipes and Fragments	-	-	-	-	6	-	-	-	5	-	-	-	-
European Trade Pipe Fragments	-	-	-	-	-	-	-	-	-	-	-	-	1

The Savannah River Level

In the squares excavated, the Savannah River level contained a total of 12 Savannah River type projectile points and 10 Large Oval Blades. One Small Savannah River point was found in the deeper Halifax level and could be the result of pitting into the Halifax level by the Savannah River people. Two Large Oval Blades were also found in the Halifax level. This may represent the upper range of the Small Oval Blade type that is associated with the Halifax points, or it may also represent intrusion into the lower level from above.

Table XX. Projectile Points from Pre-Ceramic Levels at the Gaston Site.*

Projectile Points	Type of Stone: Slate	Quartzite	White Quartz	Crystal Quartz	Felsite	Total	Type %
Small Savannah River							
Level 5	1	2	-	-	-	3	75.0
Level 6	0	-	1	-	-	1	25.0
Level 7	0	-	-	-	-	0	-
Total	1	2	1	-	-	4	100.0
Large Savannah River							
Level 5	1	4	1	1	2	9	100.0
Level 6	0	-	-	-	-	0	-
Level 7	0	-	-	-	-	0	-
Total	1	4	1	1	2	9	100.0
Halifax**							
Level 5	0	-	-	-	-	0	-
Level 6	1	-	12	-	1	13	81.25
Level 7	0	-	-	1	-	1	6.25
Total	1	-	12	1	1	14	87.5**
Guilford							
Level 5	0	-	-	-	-	0	-
Level 6	1	1	1	-	-	4	30.8
Level 7	7	2	-	-	-	9	69.2
Total	8	3	1	-	-	13	100
Large Oval Blade***							
Level 5	0	8	2	-	-	10	71.4
Level 6	0	-	2	-	-	2	14.3
Level 7	0	-	-	-	-	0	-
Total	-	8	4	-	-	12	85.7***
Small Oval Blade							
Level 5	1	1	3	-	-	5	35.7
Level 6	4	-	3	-	1	8	57.15
Level 7	1	-	-	-	-	1	7.15
Total	6	1	6	-	1	14	100.0

* See Figure 39 for graph abstracted from these data.
** See Table XVII for additional 12.5% of Halifax projectile points from the pottery levels 1–4.
*** See Table XVII for additional 14.3% of Large Oval Blades from the pottery levels 1–4.
Note: Level 5 = 37–47", Level 6 = 52–58", and Level 7 = 58–64".

It might appear that any intrusion from the Savannah River level into the Halifax level could be detected, but this was not the case. Although the Savannah River level was slightly darker than the adjacent levels, it was not sufficiently dark enough to detect any pits out of it into the deeper levels, especially when the soil was damp. (A detailed description of the method of excavating these squares is presented the section on Method of Excavating Pre-pottery Levels at the Gaston Site in Chapter 5.) Table XX shows the totals for the projectile points and blades from these levels, and Figure 39 shows the stratigraphic relationship and percentages of types found at various levels at the Gaston site.

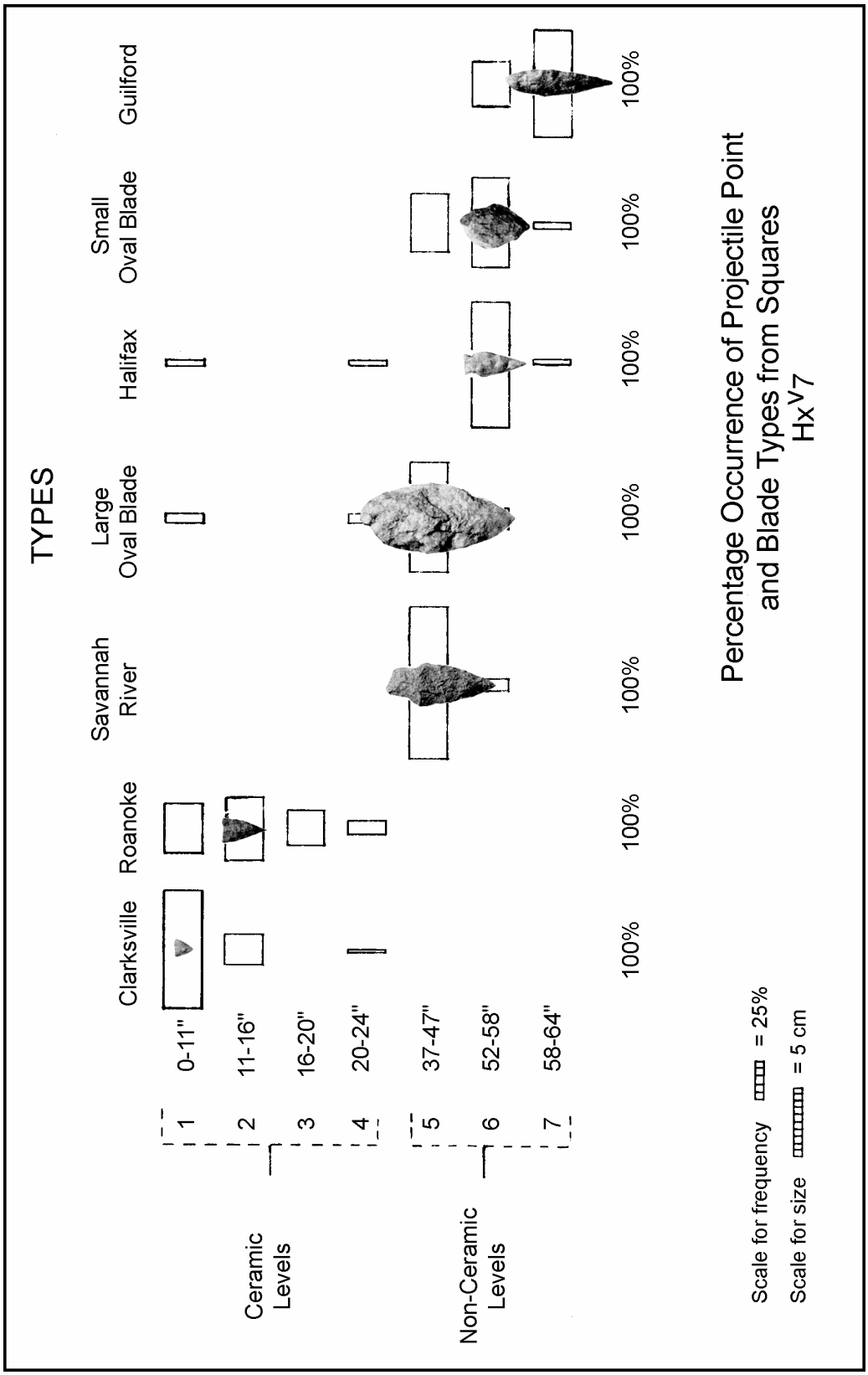


Figure 39. Percentage occurrence of projectile point and blade types from the squares at the Gaston site.

Also associated with the Savannah River level were 10 Abraded Stones, one Pitted Stone, one Center Pecked Stone, and two hearths. The hearths were piles of stone which had a slightly darker colored soil around them and flecks of charcoal under and around the stones. The stones were water worn and were usually broken. Plate 5la is a photograph of a Savannah River hearth, and a base of a Savannah River projectile point was found among the stones in this hearth. Charcoal samples were collected from the hearths.

The Savannah River focus, as it is manifested in North Carolina, has been excellently described by Joffre Coe.[4] He points out that it did not extend into pottery-making times in North Carolina as it did at Stallings Island, and this is certainly true for the Savannah River focus as it was found in this excavation.

The angle formed at the junction of the stem with the blade on the points in this study was not the typical right angle described by Coe, but the basic typological form of the points is the same. The Savannah River type points found in the stratigraphic context in this survey are without a doubt the manifestation of the Savannah River focus in the northeast North Carolina and southeast Virginia area.

The Savannah River focus, especially in its pre-pottery context as found in this excavation, is a manifestation of the Archaic period. Griffin in 1952 says that the remains from the Archaic period in New York and Kentucky give consistent radiocarbon dates ranging from 4,000 to 5,000 years ago.[5] When the charcoal from the two hearths from the Savannah River level at the Gaston site is dated, it is thought the date should fall somewhere within this range, but perhaps closer to 4,000 years ago.[6]

For an average of five inches below the Savannah River level there was a layer of white sand in which some chips were found, but no points were usually found until the 53-inch level. No visible soil change could be observed to indicate an occupation level, but the occurrence of white quartz chips increased, and in some squares several white quartz, side-notched, ground-base projectile points were found. These were usually at the same level and closely associated with hearths. These projectile points have been named the Halifax type. Plates 49a and 49b show a square excavated down to the Halifax level with a hearth and two Halifax points in situ. The excavation of this square was begun after the bulldozers had removed the 18–24 inches of pottery midden from the area where the square was excavated.

Most of the Halifax type points were found within the 52-inch to 58-inch level. This level is referred to as the Halifax level.

The Halifax Level

The distribution of the Halifax points by levels is shown in Figure 39. A total of 14 Halifax points were found during the excavation of the pre-pottery levels. Thirteen of these were found between 52 and 58 inches deep. The other one was found at the 63-inch level associated with the Guilford type points. This association may be an intrusion from the Halifax level into the Guilford level. A discussion of the Guilford–Halifax relationship is presented following the description of the Guilford level and point distribution.

Associated with the Halifax points at the same level were five stone hearths. These were piles of stones containing charcoal around and under them. The stones were usually broken water-polished stones, and in one instance two mortar fragments were found with other stones in a hearth. One Pecked Stone, one Pitted Stone with several pits, and one

Table XXI. Artifacts from Pre-Pottery Levels at the Gaston Site.

Objects of Stone	Count	Objects of Stone	Count
Abraded Stones	10	**Stone Drills**	
Level 5	7	Level 7	1
Level 6	3	**Center Pecked Stones**	
Total	20	Level 5	2
Pecked Stones		Level 6	1
Level 6	1	Total	3
Level 7	6	**Chipped, Notched Axes**	
Total	7	Level 6	3
Pitted Stones		Level 7	2
Level 5	2	Total	5
Level 7	1	**Worked Red Ochre**	
Total	3	Level 7	1
Pitted Stones (with several pits)		**Hearths of Stones**	
Level 6	1	Level 5	2
Mortars		Level 6	5
Level 6	2	Level 7	1
		Total	8

Note: Level 5 = 37–47", Level 6 = 52–58", and Level 7 = 58–64".

Center Pecked Stone were found in hearths at the Halifax level. Also found were seven abraded stones. Three Chipped, Notched Axes were also found at the Halifax level. Fifty-seven percent of the Small Oval Blades were found at the Halifax level, and most of the others came from the Savannah River level. Table XXI shows the tabulation of artifacts by levels, and Figure 39 shows the relationship of the Halifax point type.

Before the interpretation of the position of the Halifax point can be adequately made, the stratigraphic position of the Guilford type points should be described.

Below the Halifax level, beginning at the 58-inch level and extending down to the 64-inch level, there usually was found in several squares the long, thick, un-stemmed projectile points of the Guilford type. No soil change could be used to locate this level, it appearing much the same as the Halifax level, with white sand through which horizontal rippled layers of clay were distributed. These ripples were evidently formed after the river deposited the sand on the site and the percolating water carried small grains of clay down between the larger grains of sand, eventually re-depositing it as horizontal layers of clay through the sand. These ripples can be seen in several of the plates showing the Halifax hearths and the profile of the site.

The Guilford Level

Of the 13 Guilford type points found in the pre-pottery levels, nine of them were found at the depth of 58 to 64 inches. The other four were found at the Halifax level of from 52 to 58 inches. Also found at the same level was found a Chipped Stone Drill, three Abraded Stones, six Pecked Stones, one Pitted Stone, and two Chipped, Notched Axes.

A small hearth was found containing a small quantity of charred nuts and wood. This charcoal is not thought to be a large enough amount for radiocarbon dating. Plate 51b shows this hearth in the profile of a square at a depth of 68 inches.

To understand better the relationship between the Halifax and the Guilford type points, it is necessary to look at Figure 40 and refer to it as necessary as the following explanation is made.

In the pre-pottery levels everything that stayed in the screen was saved. The chips were later counted and typed by Lewis Binford according to material. It was thought at the time of excavation that some comparison between the material used in the manufacture of projectile points and the chips found during excavation could be made. This comparative chart is shown in Figure 40.

As can be seen, there is a correlation between the type of material used for projectile points at a certain level and the percentage of chips of that type material. The Savannah River type material used most for points (46.1% quartzite) also constituted a high percentage of the chip material (shown by the bars) found in the Savannah River level. The use of quartzite for the Large Oval Blades also correlates with the level where a high percentage of quartzite chips was found.

The material used for the Halifax and Small Oval Blade types was predominantly white quartz. In levels within square 10L20 and square -70L60 where Halifax type points were found, there is also a high percentage of white quartz chips. The Guilford points were primarily of slate (61.5%), and in the squares (particularly square 60L10) where Guilford points were found there was also a high concentration of slate chips at the Guilford level. Notice that square 10L20 has a high concentration of slate chips at the level below the Halifax level, but unfortunately no Guilford points were found there, as indicated by the lack of the Guilford shading on the graph. This indicates that chipping of Guilford points had been going on at this level and at this particular spot, but no points were found.

This is a significant factor in the interpretation of the relationship between the Halifax and the Guilford type points. The reason for this significance can be seen in an examination of the individual square profiles (Figures 29–36) and the chart in Figure 40. It will be noticed from these figures that in no square was the Halifax level containing Halifax points directly above the Guilford level containing Guilford points. The Savannah River level was stratigraphically above the Halifax level, and it also was stratigraphically above the Guilford level, but in no instance were the three levels stratigraphically one above the other with each containing points.

Therefore, if, as is seen in the chip analysis chart in Figure 40, a high concentration of slate chips correlates with Guilford points, as in square 60L10 and to some extent in square -60L60, and a high percentage of slate chips was found in square 10L20 at the Guilford level, though no points were found, it can be safely concluded that the Halifax level is stratigraphically above the Guilford level.

This is further supported by the strong evidence of superposition of the Halifax type points above the Guilford points. A look at the individual square profiles in Figures 29–36 will immediately show that the Halifax points in almost every case occur higher in the ground than the Guilford points. In only one instance was a Halifax point found associated with Guilford points at a depth of 63 inches. In all other cases they occur

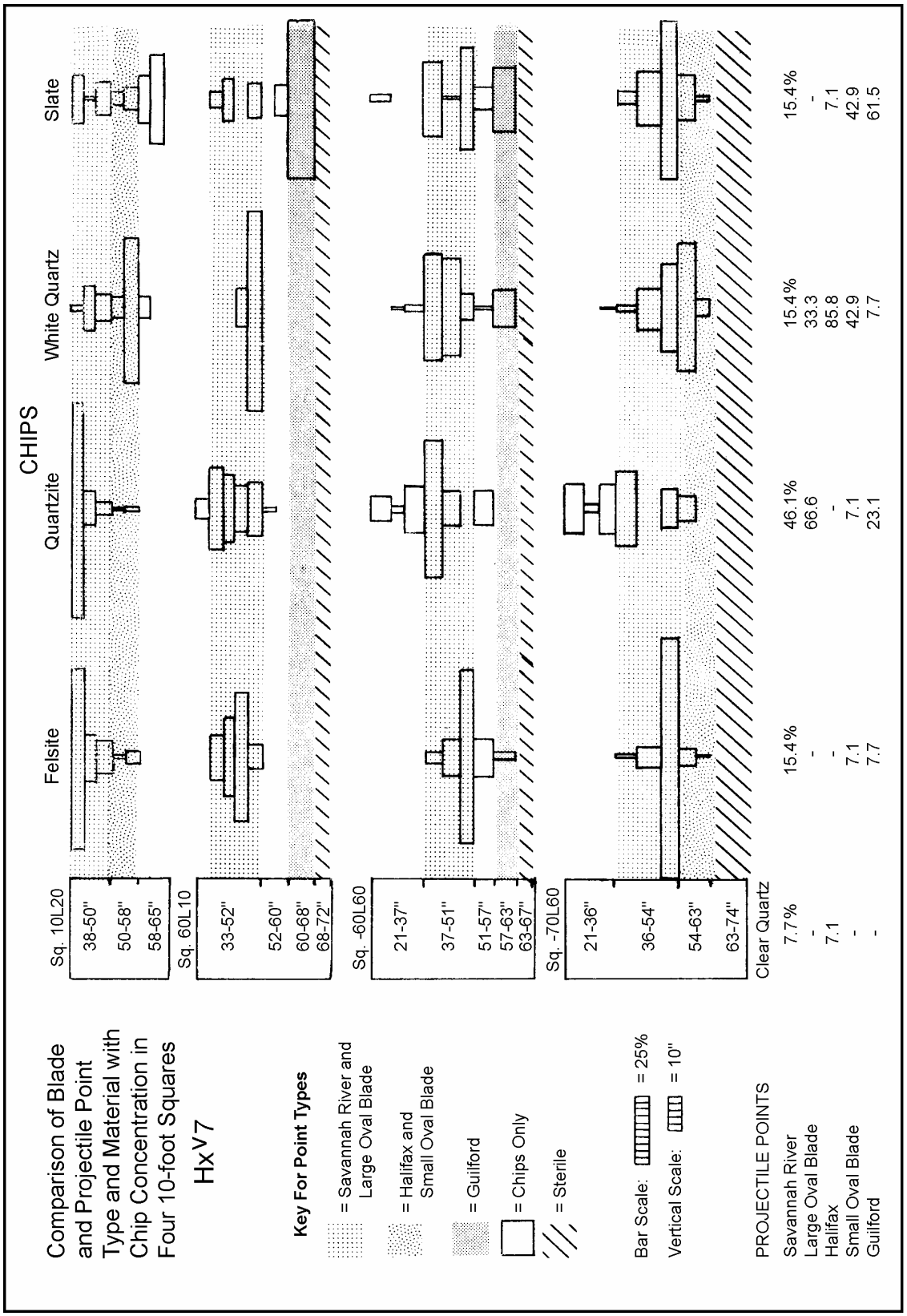


Figure 40. Comparison of blade and projectile point type and material with chip concentration in four 10-foot squares at the Gaston site.

higher than the Guilford points. The presence of the four Guilford points at the Halifax level can be attributed to pits being dug into the deeper Guilford level by the later Halifax people.

It can be noticed from the chip analysis chart (Figure 40) that in squares 60L10 and -60L60 the level that is the Halifax level as far as the depth is concerned (though no Halifax points were found there) is also low in the percentage of white quartz chips of which the Halifax points and Small Oval Blades are made. In the case of the slate chip and Guilford point relationship in square 10L20, the presence of chips implied the presence of the points. In this case, as with the Halifax levels in squares 60L10 and -60L60, the absence of chips implies the absence of Halifax points, which was actually the case.

This situation, along with the slate chip and Guilford point relationship in square 10L20 and the fact that in no square were Halifax points found directly above Guilford points, indicates that there was not a mantle of chips scattered evenly over the site at the Guilford period or at the Halifax period.

Rather, it indicates that there were comparatively small campsites concentrated near hearths, around which the Guilford people sat and chipped points of slate, and at a later time the Halifax people had different hearths at a higher level around which they sat and chipped Halifax points of white quartz. In excavating the squares, none were dug where the Guilford and Halifax hearths were directly over one another, but in square 10L20 such a situation was apparently close, whereas in squares 60L10 and -60L60 the digging did come down on top of a Guilford chipping area.

When the archaeologist is excavating pre-pottery sites where the artifact yield may be very low compared to the amount of digging undertaken, every chip from the screen should be saved. In so doing there will be an increase in the amount of information the site will yield.

The Guilford focus was described by Coe in 1952 on the basis of a series of surface collections and the finding of Guilford material in a stratified context.[7] The excavation at Roanoke Rapids also found the Guilford material overlaid by the Savannah River type material, with the addition of the Halifax material lying between the Guilford and Savannah River levels.

When Coe wrote his Guilford description, he compared it typologically to the Yuma points from the Southwest and classified it in the Paleo-Indian complex.[8] Coe recovered no charcoal from the Guilford level and at Roanoke Rapids only a small amount was found, but not enough for a radiocarbon date. However, the discovery of hearths at the Halifax level enabled the collection of sufficient charcoal to give a date for this material. The charcoal has been sent to the University of Michigan for radiocarbon dating.[9]

Since 1952, when the Guilford focus was first described, Coe has found a variety of projectile point types in a stratified context underlying the Guilford focus. This series of projectile point types extends back to a fluted type, which is the oldest so far discovered in the Carolina Piedmont.[10]

Taking 4,000 years ago as the tentative date for the Savannah River focus in North Carolina, it is thought that the Halifax charcoal should give a date between 4,000 and 5,000 years ago, and the Guilford focus should date between 5,000 and 6,000 years ago.

The pre-pottery projectile point relationships, as found in the Roanoke Rapids excavation, and described here, are not the first time such relationships have been found

and described. With the exception of the Halifax type points, the others were described by Coe in 1952, and their pre-pottery context was definitely established by then.[11] The Roanoke Rapids excavation verifies the pre-pottery context of the Savannah River and Guilford type points. Therefore, when the Guilford, Halifax, and Savannah River points are occasionally found in a pottery pit or in a level associated with pottery, the association can immediately be assumed to be a false one culturally, being based on later occupation of a pre-pottery site by pottery-making people. Therefore, when archaeologists as late as 1955 attempt to correlate known pre-pottery type points with pottery sequences, they are overlooking considerable data indicating that such a correlation did not exist culturally.

An example of this type approach is the study by Holland of projectile points and blade types in Virginia.[12]

A Statement Regarding the Radioactive Carbon (C^{14}) Dating Method

The radiocarbon method of dating culturally associated charcoal, wood, and bone samples is widely accepted as a valid method of dating. A short summary of the theory involved is presented here for those who may be interested.

> The development of this technique dates to 1931, when, at the University of Chicago, an unknown radioactivity was detected.... [T]his was identified as that of carbon 14 whose source lay in the high atmosphere, where cosmic radiation produces neutrons which are converted to radiocarbon by reaction with nitrogen according to the formula: neutron $+N^{14}$ = proton + C^{14}. These carbon atoms unite with oxygen in the atmosphere to form carbon dioxide in the same manner as does ordinary carbon (C^{12}), and as such are circulated through the biosphere.
>
> The C^{14} atoms have a half-life of 5,568 ± 30 years. In the life-process of oxygen exchange in plants and animals, the amount of radiocarbon uptake is sufficient to effect a level of equilibrium with that in the atmosphere. Thus organisms during life possess a specific activity of 15.6 disintegrations per minute per gram of carbon in their bodies. After life and C^{14} intake cease and the equilibrium is halted, radioactive disintegration of the C^{14} occurs, and after 5,568 years this activity will have decreased to 7.8 disintegrations per minute per gram of carbon.[13]

By computing the amount of radiation remaining in a sample of charcoal, the date can be determined and is given with a plus-or-minus error of 200–300 years in most cases. Radiocarbon dates from samples at the Gaston site are seen in Table XXII.

Radiocarbon Dates for Pottery-Associated Charcoal from Features at the Gaston Site

Soon after the cataloging of the excavated material from the basin was complete, charcoal from several features was selected and sent to James B. Griffin at the Museum of Anthropology at the University of Michigan for radiocarbon dating. Since the pottery types had not been established at that time, the samples were selected on the basis or association with certain pottery types that gave indications of having future significance. For this reason, there was no selection of features to be dated in terms of Vincent, Clement, and Gaston types that were later proven to be popular styles at different periods of time. The selection of features to be dated was based on the appearance of the

Table XXII. Radiocarbon Dates from the Gaston Site.

Michigan Catalog Number	UNC-RLA Catalog Number	Square Number	Feature Number	Depth of Sample	Material Dated	Jan. 1956 Estimate (years ago)*	Carbon 14 Dates (years ago)	Calibrated Date**	Feb. 2004 Calibrated Date Range**
M527	619eb1280	35R235	148	-	Gaston Clarksville	250–450	215 ± 200	AD 1660	AD 1720–1890
M525	619eb1176	-90L50	117	-	Clement	300–400	370 ± 200	AD 1490	AD 1400–1680
	619eb1182	-80L50	119	-	Net II				
					Type I				
					Type II				
M526	619eb778	35R125	20	-	Vincent &				
	619eb927	35R185	55	-	Clement	450–1,450	1,040 ± 200	AD 1000	AD 800–1160
	619eb1104	-70L140	102	-	Roanoke				
	619eb1126	0L150	105	-					
M524	619eb180	60L10	191	42–47"	Savannah				
	619eb181	60L10	192A	41–49"	River	3,000–4,000	3,900 ± 250	2420 BC	2675–2030 BC
	619eb183	-60L60	hearth	38–43"					
M522	619eb178	55L25	hearth #1	63–68"	Halifax ?	4,000–5,000	4,280 ± 350	2890 BC	3370–2460 BC
	619ab179	55L25	hearth #2	70–76"					
M523	619eb175	10L20	hearth #1	58–62"					
	619eb176	10L20	hearth #2	58–62"	Halifax	4,000–5,000	5,440 ± 350	4320 BC	4620–3940 BC
	619eb177	10L20	hearth #3	58–62"					
	619eb184	-70L60	hearth	54–58"					

*Estimates made in January 1956, for a museum display at the State Museum in Raleigh, North Carolina. The radiocarbon dates were received from the Michigan Laboratory in July 1957.
**Calibrated dates by Dr. Keith Stephenson, USC SCIAA Savannah River Archaeological Research Program. Date range with highest probability.

majority of the pottery in the feature. The sherds with a simple-stamped surface finish, folded rims, and incising on some of the body sherds looked "late." For this reason Feature 148 was selected for dating, because this feature had produced over 1,000 sherds, many clay pipe fragments, and Clarksville type projectile points known to appear at the historic time period at Clarksville, Virginia, and Hillsborough, North Carolina.

Samples from two other pits were sent, including one from which over 50% of the sherds were a fine knotted-net impressed type, later described as Type Net II. Both samples were sent with the notation that the charcoal could be combined, since a net-impressed sherd from one pit fitted a sherd from the other pit. These pits were Feature 117 and 119. It was thought that this charcoal should give a date for the net type pottery.

Samples from a third group of features was sent because the pottery appeared "early" (i.e., it was impressed with large, coarse basket-type fabric, and cord impressions on a paste that was hard and tempered with occasional large particles of crushed quartz). The rims were straight and not decorated. This "early" appearing pottery I eventually called Vincent. Features of this type sent for dating were Features 20, 55, 102, and 105. I thought that the charcoal from these features could be combined and would give a date

for the early period of occupation in the basin. The dating of these features will be discussed in the order presented above, from most recent to the oldest.

The preceding sections were written before the carbon-14 dates were known, and the estimates herein as to the dates for the various pottery and pre-pottery culture complexes were made public in a display of the culture sequences at Roanoke Rapids at the State Museum in Raleigh over a year before the radiocarbon dates were known. These estimates and the actual radiocarbon dates are presented in Table XXII for comparison. (The 2004 calibrated dates shown in this table have been added to the original table through the courtesy of Keith Stephenson.)

The position of Feature 148, containing Gaston type pottery on the seriation chart in Figure 37, is well up near the top at the late period. The estimate for the Gaston occupation of the site was AD 1500–1700, which would be between 250 and 450 years ago, ± 200 years [the calibrated date is AD 1660]. This actual date of 215 years ago is more recent than the evidence indicates that the site was occupied.

No actual date had been suggested for the net-impressed pottery in the basin, but it was known that net-impressed pottery on the Dan River dated between AD 1625 and 1675.[14] I thought the net-impressed pottery at Roanoke Rapids would be older than the net-impressed pottery on the Dan River. This was because I thought that the Gaston type pottery was the popular type at Roanoke Rapids during the seventeenth century, and Features 117 and 119 contained a high percentage of net-impressed pottery but no Gaston Simple Stamped sherds. Therefore, I thought the net-impressed pottery would date sometime in the sixteenth century. The radiocarbon date for the combined charcoal from Features 117 and 119, dating the net-impressed type sherds, was 370 ± 200 years ago. This would place the popularity of the net type pottery in the latter part of the sixteenth century.

Other than giving a date for the Net II type pottery, this date is also significant in dating three other pottery types described in this report. The total sherd count (n=57) for both features was combined, and the percentages were as follows: Net II, 28.3%; Type I, 24.5%; the Clement series, 35%; Type II Cord-marked, 3.5%; and the Vincent series, 8.7%.

The important types dated along with the Net II are the Clement series and the Type I and Type II pottery. On the seriation chart in Figure 37, this combined percentage bar would fit slightly below the bulge for the Gaston type, fitting very well with the evidence previously cited for the association of Clement, Net II, and Type II pottery as indicated by the seriation chart.

Because the major occupation of the basin appeared to have been during the time the "early" appearing pottery was being made, a long time span for this occupation was estimated. I thought the earliest pottery period occupation of the basin probably occurred between AD 500 and AD 1500, when the style changes began to bring the Gaston type pottery into popularity. The radiocarbon date for the combined charcoal from Features 20, 55, 102, and 105 was 1,040 ± 200 years ago. By examining the seriation chart in Figure 37, it can be seen that Features 102 and 105 contain a high percentage of Vincent type pottery, while Feature 55 is the feature containing the highest percentage of Clement Cord-marked pottery. Feature 20 is not shown on the seriation chart, due to intrusion of other features on it. However, it contained a total of 482 sherds, 85% being of the Clement series.

It is evident the date of 1,040 years ago (with a calibrated date of AD 1000) is a combined date for both the Clement and Vincent pottery types. If only Vincent type features had been included, the date would probably have been nearer the previous estimate of 1,500 years ago, and if a separate date for the Clement type feature was taken, it would probably be nearer the date of 500 years ago. As it is, with the two combined, a date midway between these two estimated extremes was obtained.

From this, it can be seen that the chronological estimates previously made on the basis of comparative pottery typology were completely verified by the radiocarbon dates (Table XXII).

Radiocarbon Dates for the Charcoal From Hearths at the Pre-Pottery Levels at the Gaston Site

Earlier in this volume, written over a year before the radiocarbon dates were known, the following statement was made in regard to Griffin's referring to Archaic dates ranging from 4,000 to 5,000 years ago: "When the charcoal from the two hearths from the Savannah River level at the Gaston site is dated, it is thought that the date should fall somewhere within this range, but perhaps closer to 4,000 ago."

Charcoal from the hearth, Feature 191, at the Savannah River level in square 60L10 (Figure 36) was combined with charcoal from the pit, Feature 192-A, in the same square. Also added to this charcoal was the charcoal from the Savannah River level hearth in square -60L60, shown in Plate 51a and Figure 32. In this hearth, the base of a Savannah River type projectile point was found, and in Feature 192-A a Savannah River point base was also found. The charcoal from these hearths was kept separate until combined by the Michigan laboratory.

The date from the charcoal from these combined features was 3,900 ± 250 years ago, which fits very well with the estimated date (with a calibrated date of 2420 BC).

Two dates were obtained for the Halifax level. One of these dates was taken from the combined charcoal from hearths #1 and #2 in square 55L25 (Figure 30). It was thought that hearth #2 should give a date for the Halifax material. Hearth #1 was looked upon with some doubt because of its close association with the discolored Savannah River level and the possibility that it might represent a hearth of the Savannah River period, since the Halifax point and ax found at the same level were found further from the river than the hearths and were not actually closely associated with it. It was assumed, however, that both hearths represented Halifax-associated fires.

The combined date for these two hearths is 4,280 ± 350 years ago. The estimated age for the Halifax culture of 4,000 to 5,000 years ago fits very well with this radiocarbon-dated age (with a calibrated date of 2890 BC).

The second Halifax date was taken from charcoal from hearths #1, #2, and #3 at the 58–63 inch level of square 10L20 (Figure 35 and Plate 50). In this square there was no doubt about the association of the Halifax projectile points with the hearths. Also combined with this charcoal was the charcoal from the hearth in square -70L60 (Figure 33 and Plate 49). The association of this hearth with Halifax projectile points was undeniable, since two Halifax points were lying beside the hearth (Plate 49b).

The radiocarbon date for these combined Halifax-level hearths is 5,440 ± 350 years ago (with a calibrated date of 4320 BC). The previous Halifax estimate of from 4,000 to 5,000 years ago was somewhat conservative but not very far from the radiocarbon date.

My estimated date for the charcoal collected from the Guilford hearth underlying the Halifax level (Plate 5lb) was 5,000 to 6,000 years ago, which the Halifax date tended to verify.

An Interpretive Summary of the Archaeological Complexes at the Gaston Site

The earliest evidence for the occupation of the Gaston site by an Indian group is in the form of a few Morrow Mountain projectile points. These were not found in a stratigraphic context, so not much is known of how long the site was occupied by the people making this type point. This type is known, however, to occur at a very early level on other sites in North Carolina, predating the Guilford type material. From this typological information, the Morrow Mountain point is thought to be the oldest cultural material found on the Gaston site.

Sometime after the occupation of the site by the makers of the Morrow Mountain point the carriers of the Guilford culture occupied the site. The Guilford complex at the Gaston site is found at a depth of almost five feet from the surface of the ground and is manifested in the presence of the typical long, fat, stemless projectile point, along with a chipped-notched ax. These projectile points were found associated with hearths and a large number of flakes of the slate material used to make the Guilford points. Stone drills and abraded stones are also characteristic of the Guilford complex at the Gaston site. The Halifax complex, located stratigraphically above the Guilford material, gave a calibrated radiocarbon date of 4320 BC, indicating that the Guilford complex dates earlier.

Side-notched projectile points made of white quartz characterize the Halifax complex, located several inches above the Guilford complex. Axes typical of the Guilford complex were also found associated with the Halifax projectile points. Hearths at the Halifax level of 52–58 inches were composed of fire-cracked stones, among which flecks of charcoal were seen and collected for radiocarbon analysis, with the results reported above. A small oval blade appeared to be associated with the Halifax points and may represent the blanks (or performs) from which the points were made.

Above the Halifax complex, and stratigraphically separated from it by several inches of sterile sand, the Savannah River complex as it is manifested in North Carolina was found. Stemmed projectile points varying in size from medium to large represent this complex. These points usually have a stem blending in with the shoulder of the blade, giving the stem a blended look with the blade as opposed to a sharp right angle.

Hearths were also found at the Savannah River level of from 36–48 inches, and charcoal was collected from these hearths. A large oval blade type was typical of the Savannah River complex at the Gaston site and may represent blanks for the projectile points, or knives. Basically, this Savannah River complex contained the same series of material as the preceding complexes, with the exception of the chipped-notched axes. No axes of any kind were found at the Savannah River level, and no sherds of steatite, which may have been expected, were found. A few pits were found small enough to have been postmolds, but they may have been small pits. Charcoal from these pits and from the hearths of fire-cracked stones was recovered, and a radiocarbon date 3,900 years ago was obtained for the Savannah River complex at the Gaston site.

Above the Savannah River level and separated from it stratigraphically by 18 inches of sand free of cultural material was the two-foot-thick mantle of midden accumulation of

the pottery-period occupation of the site. Several pottery types were defined and analyzed. Toward the bottom of the midden accumulation, and representing the earliest pottery type to be made at the Gaston site, was the sand and quartz-tempered, straight rim, pointed base, heavy fabric impressed and cord-marked Vincent series pottery. This pottery series seriates at the bottom of the pottery seriation and is closely related to a type that succeeded it, the Clement series pottery.

Associated with this Vincent type pottery is a triangle type projectile point called the Roanoke projectile point. This medium-sized triangle was used by the first pottery-making people to enter the basin and represents the introduction of the bow-and-arrow at the Gaston site. This type was also used by the later people who made the Clement pottery. Associated with the Vincent pottery was the boatstone atlatl weight. This weapon was evidently used to some extent by the earliest pottery-making people to enter the basin, but they later gave it up in preference to the bow-and-arrow. It may have been ceremonial in nature when it was used at the Gaston site. Abrading stones were characteristic of this complex, as well as the earlier pre-pottery complexes found on the site.

The hard, compact, crushed quartz and sand-tempered pottery of the Vincent complex was eventually replaced by the more popular Clement type pottery. This pottery had a finer temper, and the paste was more porous and broke easier. The bottoms of the vessels were rounded instead of pointed, and the rim began to flare slightly. The boatstone atlatl weight was given up by this time, and the main weapon was the bow-and-arrow, using medium-sized triangular points of the Roanoke type. This Clement type pottery represents a later style preferred by the descendents of the earlier makers of Vincent pottery.

One apparent difference between the Clement and Vincent occupations of the site is that all the burials found on the Gaston site appear to be either Clement or Gaston pottery-associated burials. No Vincent burials were found. This would indicate a difference in burial patterns between the two time periods. The Clement burials were in round pits in a flexed position with no grave goods. Dogs were also buried, and in one instance a dog was buried over a human fetus. Charcoal from features containing Vincent and Clement type pottery was combined and gave a date of 1,040 years ago (AD 1000). A later date of 370 years ago was obtained from two pits containing Net Impressed, Type I, Type II, and Clement series pottery, and a minor amount of Vincent type pottery. This would indicate that these types were related at this 370-year time period. Since these features contained no Gaston Simple-stamped pottery, it is thought that they are slightly earlier; however, the absence of Gaston sherds does not necessarily mean that the type could not have been made in small amounts at that time.

Associated in features with Vincent–Clement pottery was a large number of animal bones of various kinds. This high percentage of animal refuse in pits indicates that these Vincent–Clement people were primarily hunters, and the fact that no evidence for agriculture was found further strengthens this conclusion. Bone awls and beamers indicate the working of skins for clothing.

The Vincent–Clement cultural tradition developed into what is referred to in this report as the Gaston period of occupation of the Gaston site. This complex is characterized by an increase in simple-stamped pottery with flaring rims, folded rims, incised necks, and incised stick-figure animals for decoration on the body of vessels.

This elaboration of pottery styles appears to be reflected in other aspects of the complex. There is an increase in bone awls and clay smoking pipes, and the presence of corncob-impressed pottery indicates that they were depending somewhat on agriculture for their diet; however, they still threw many animal bones of various kinds in their garbage pits. Their Roanoke type projectile point for arrowheads developed into a very small equilateral triangle point, about half as large as the Roanoke point. This idea came from the same source as the elaboration of pottery ideas, since there is an almost perfect correlation between the Gaston pottery and the Clarksville point.

Abrading stones were still used at this time, and this tool represents one of the tools with the longest tradition without visible change of any type artifact studied in the basin.

At this time, burials were still in an oval or round pit, and occasionally a polished stone pipe or some other prized possession would be buried with the deceased. Dogs were buried, as they had been during the preceding Clement period.

Along with these new ideas influencing the people at the Gaston site at this time, there came a stronger fear of their enemies and they responded by building a stockade wall to protect their village, a thing they had not done before.

During the latest period of occupation of the Gaston site by the carriers of the Gaston culture, there was some contact with European trade goods. The presence of one trade pipe stem on the site, along with rouletted pipe-stem fragments that appear to be watch-stem rouletting, indicates a probable contact with the early colonists. The charcoal from a typical Gaston complex feature has given a calibrated date of AD 1660 for the associated pottery.

The influences on the pottery styles at the Gaston site that were felt at this time, and the change from the Roanoke to the Clarksville type projectile point, indicate a considerable influence from the Piedmont Siouan Indian groups further west along the Roanoke. Whether or not this represents an actual migration to the Gaston site is not known, but it is felt that the ideas diffused, and this diffusion of ideas had been going on for some time.

CHAPTER 7

THE EXCAVATION OF THE THELMA SITE

Description of the Thelma Site

A very similar situation to that at the Gaston site (Hx^v7) exists at site Hx^v8, the Thelma site. This site is two miles upstream from Hx^v7 between an old railroad fill and a ridge of rock above the site. The ridge here does not seem to have afforded the complete protection for the site that was the case at Hx^v7. The width of the site here was only about 75 feet between the edge of the bank and the swamp near the foot of the rim of the basin; however, the site extended downstream for about 100 yards. The lack of ridge protection here is because the site itself is located on a secondary levee, a higher bank above the present riverbank and levee, and about 100 feet from it. No cultural material was found on this lower levee.

A large number of sherds were found on the surface here, and a large amount of shell midden was scattered throughout the site where bulldozers had cleared underbrush. The soil is black, river-deposited sand resulting from occupation and humus. The exposure of a human humerus, plus the amount of midden and potsherds, were factors resulting in this site being selected for excavation.

The Method of Excavating the Thelma Site

Because of the midden deposit apparent on the Thelma site, it was chosen as the first site to be excavated. A burial was found on the edge of the high ridge upon which the site was located. This burial had been exposed by the bulldozer that cleared the site of underbrush. I decided that several five-foot squares should be excavated in the area in order to determine the depth of the midden deposit and possibly obtain some stratigraphic relation-ships between the pottery types.

I drew a line from a point near the exposed burial and a large tree at the foot of the high ridge to the south of the site. The first square was excavated about 25 feet from this tree and along the line (Figure 41).

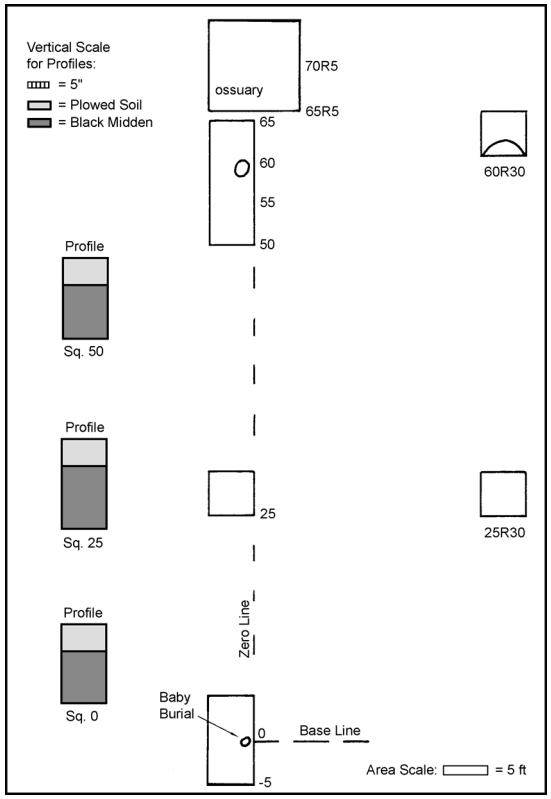
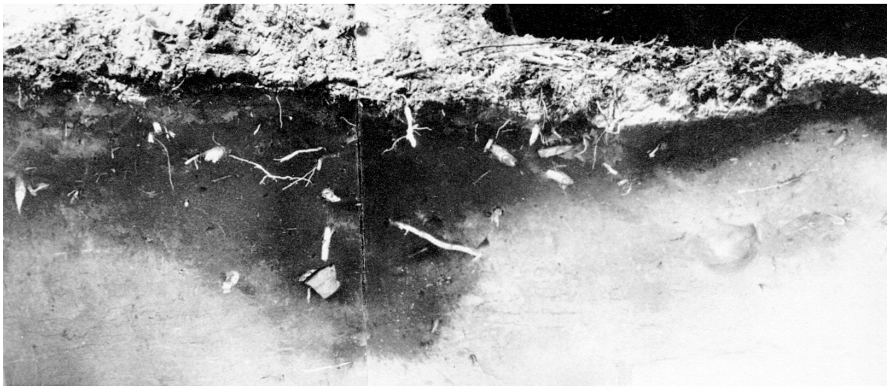


Figure 41. Excavated squares at the Thelma site.

a

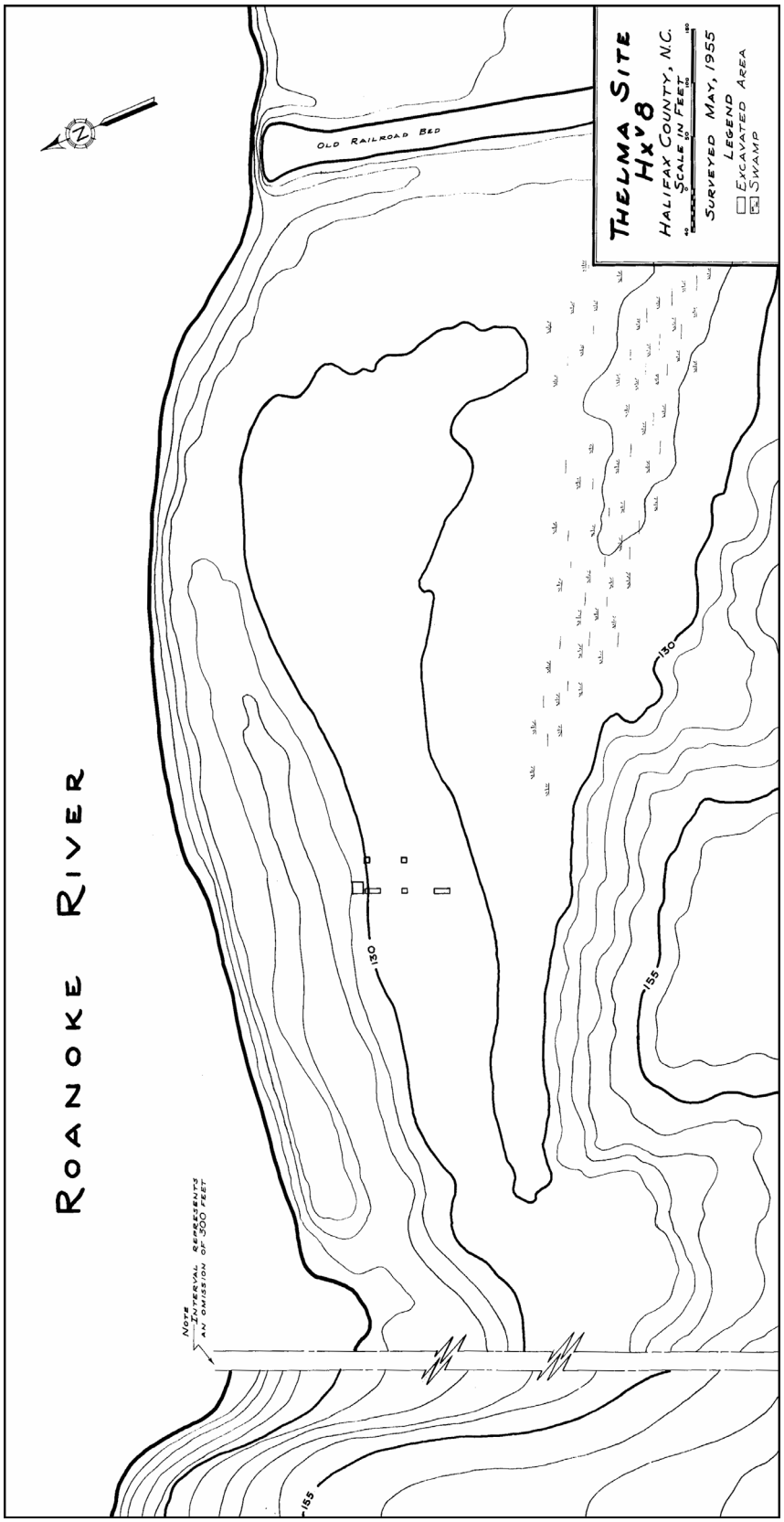


b

Plate 52. A: The Thelma site looking east toward the dam. The old Gaston Railroad fill is to the right. Joffre Coe is picking up sherds on one of his two visits to the Roanoke Basin to check on our progress. B: The profile of squares 65 and 65R5, showing the large pit or gulley. The hole at the right indicates where one of the skulls of the ossuary was removed.

The soil was removed in six-inch levels, and an average depth of 18 inches was found for the midden. This square was numbered square 0. The adjoining square nearer the bank was excavated as square -5. Other squares were excavated along the line at 25, 50, 55, 60, and 65 feet from the first square which was on the 0 line. Additional squares were excavated at 65R5, 70R5, and 25R30.

All soil was sifted and all sherds, bone, and shell were saved and placed in bags numbered with the square number and the level. A detailed description of the methodology of excavating squares is presented in Chapter 5. The site was transit-mapped by Lewis Binford, and his drawing of the site is shown in Map 8. A photograph of the site is shown in Plate 52a.



Map 8. Location of the test squares at the Thelma site (drawn by Lewis Binford).

Excavation of Features at the Thelma Site

In square 0, three inches from the zero point in the southeastern corner of the square, was a pit six inches in depth and eight inches across that contained four molars and a few bone fragments of an infant. No sherds were in the feature. Also in square 0, at the 12–18-inch level, a complete bone fishhook was found.

At the 60R30 position on the site a concentration of midden, shell, and bone had been disturbed by the bulldozer. A dark outline of a pit could be seen against the lighter sand. This pit was excavated, and a collection of bone and shell was taken from it.

Other than the ossuary and the flexed burial, these were the only other features located on the site that are not reported elsewhere.

In square 0, at the 0–12-inch level, an unusual pottery vessel fragment of Vincent Fabric-Impressed pottery was found. This vessel had a lip resembling a gravy boat. It was broken in half, so it is not known whether both ends had this lip or whether the other end was rounded. The bottom was flat but joined the sides by a rounded corner. An illustration of this unusual vessel is shown in Plate 14.

Method of Excavating the Flexed Burial and Ossuary in Square 65 at the Thelma Site

At a depth of six inches under the plowed soil in square 65, a fully flexed burial was found with the skull oriented to the south. In the fill dirt near the feet of the burial, several large fragments of a Vincent Fabric-Impressed pottery vessel, shown in Plate 13, were recovered.

The burial was removed and a change in the soil color was noticed after the square was smoothly troweled below the burial. This level appeared to be the sterile sand subsoil, but a skull was found at the level of soil change from black to light brown sand. During excavation of this skull, several other bones were located along with other skulls.

This concentration of skulls and bones appeared to be an ossuary that had been backfilled with clean sand. One sherd of Vincent Fabric Impressed pottery was found associated with the bones of the ossuary.

Eight skulls were found in the pile of bones. Plate 53 illustrates this ossuary in the process of excavation. As can be seen in this plate, the ossuary was left on a block of sand and the area around was cut out in order to get a clearer picture of the relationship of the ossuary to the surrounding soil profile. Part of the ossuary was left in the profile so this relationship could be observed. Figure 42 shows a drawing of the ossuary and the relationship of it to the flexed burial above it.

The skulls from the ossuary were examined by Dr. Marshall Newman, and his report is included in Appendix A. The skulls from the ossuary were somewhat longer headed than those from the Gaston site. Plate 54 illustrates the comparison of Gaston with Thelma site skulls.

The bulldozer had disturbed the bones on the edge of the bank, and there seemed to be a break between this group of disturbed bones and the ossuary bones. If this were the case, these disturbed bones may have been a flexed burial. However, it is thought this group of disturbed bones was perhaps a part of the ossuary, since two skulls were found slightly below the disturbed area. The relationship between these bones and the ossuary could not be firmly established.

a

b

Plate 53. The ossuary at the Thelma site. A: Jewell and Stan South excavating. B: The excavated ossuary.

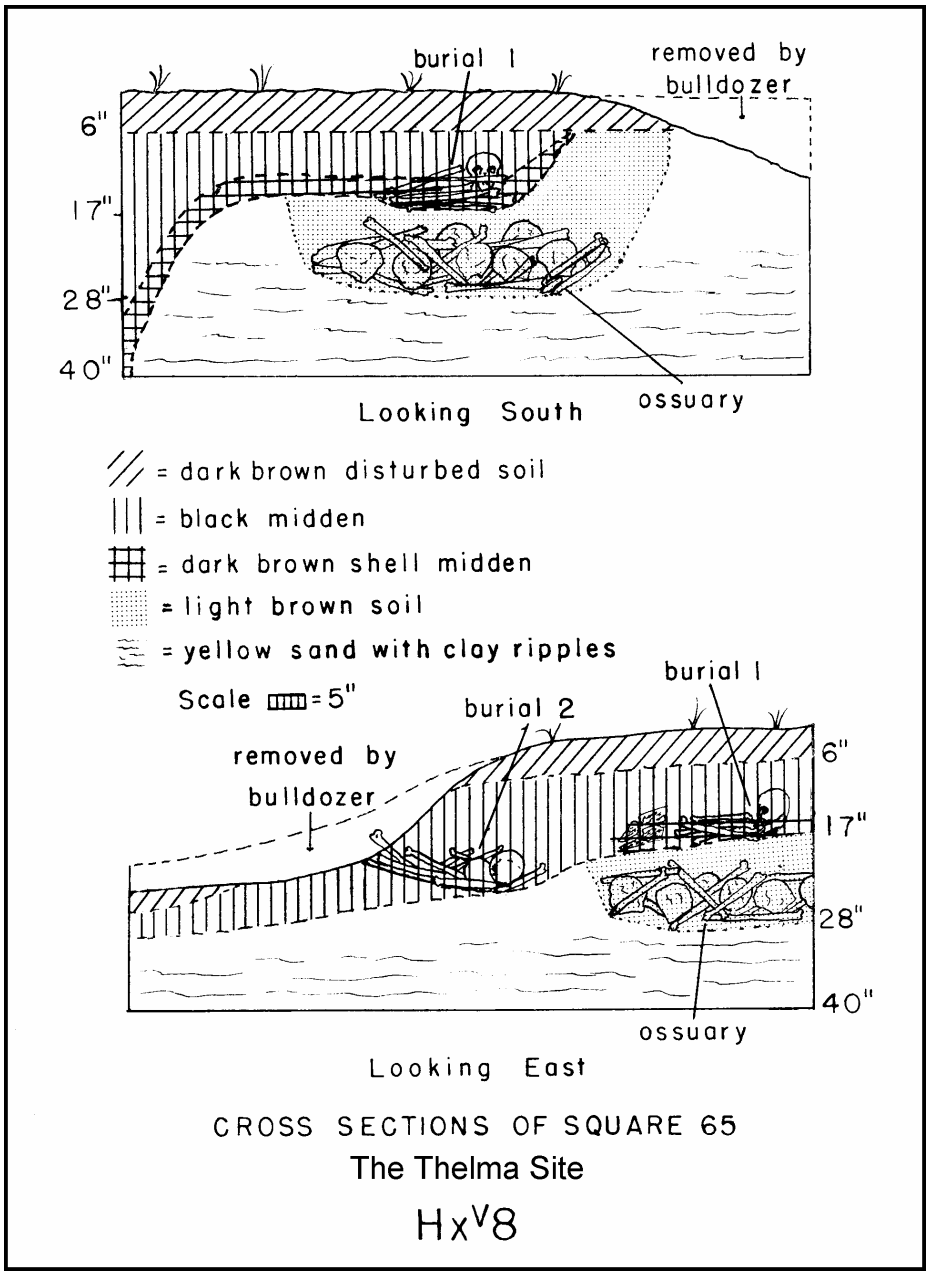


Figure 42. Cross-section profiles of square 65 at the Thelma site, showing the relationship of the ossuary to the later burials in the pottery levels above it.

Above the ossuary the black midden deposit became deeper toward the eastern edge of the square. For this reason, I decided to excavate square 65R5 to determine why this midden declined toward the east. I found what appeared to be a large pit, but it extended across the entire square toward the north.

This indicated that it must have been an eroded gulley at one time and had become filled with midden debris at a later time. A photograph of this gully profile is seen in Plate 52b. The ossuary has been removed from the area to the right, and a hole in the profile indicates where a skull was removed from it.

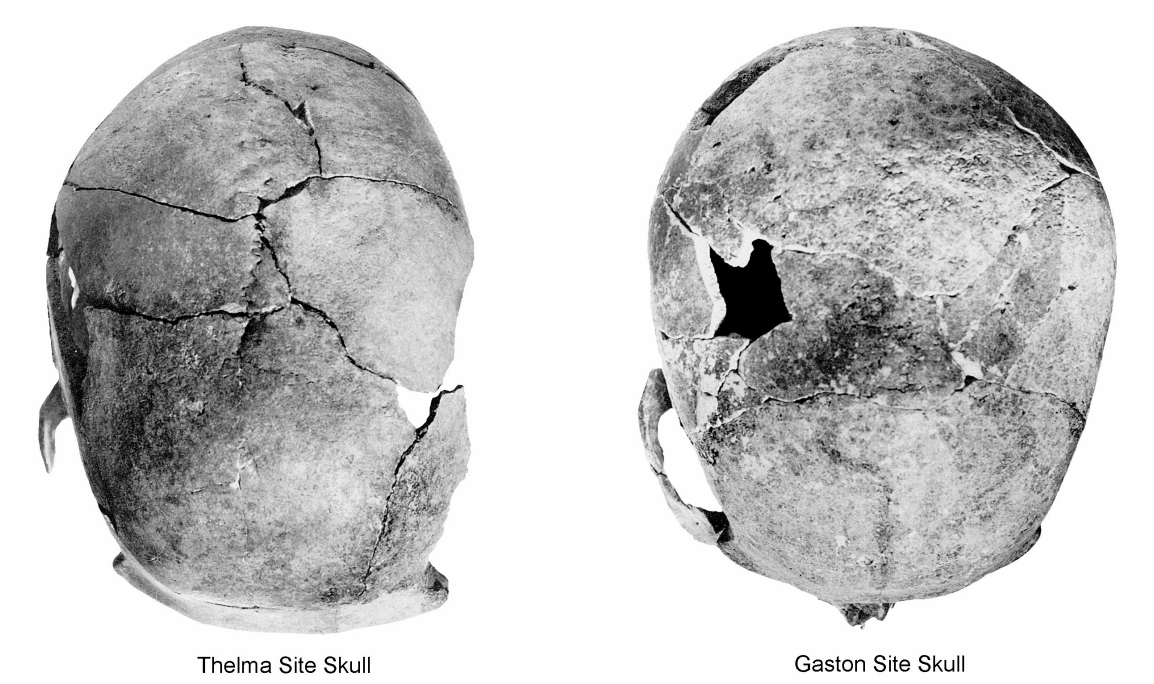


Plate 54. Comparison of skulls from the Gaston and Thelma sites.

In the bottom of the gully we found a large fragment of a skull that may have been washed from the ossuary. The edge of the gully apparently cuts into the edge of the ossuary, so the fragment could have been washed from a burial further up the gully.

The contents of the gully were shell, bone, and pottery. The only pottery from the gully was of Vincent and Clement type. Vincent Cord-marked pottery was the predominant type, comprising 55% of all sherds in the pit. Vincent Fabric Impressed pottery comprised 28%. It can be said that the gully belongs to the Vincent pottery period since 83% of the sherds were of this type. Twenty-nine sherds were found in the gully. Of these, only 17% were Clement series types. Half of a small, round-bottomed bowl of Vincent Cord-marked pottery was found in the gully, and it is illustrated in Plate 7a.

Stratigraphic Pottery Type Relationships at the Thelma Site

The squares at the Thelma site were excavated in six-inch levels to a depth of 18 inches. Very little disturbance of the subsoil by pitting was present compared to the squares at the Gaston site. Because the pottery consisted almost entirely of the Clement and Vincent cord-marked and fabric-impressed types, the very small percentage of Net Impressed pottery and other types was not plotted on the graph in Figure 43, but the count of these can be seen in Table XXV. Only two sherds of Gaston Simple Stamped pottery were found during excavation of the squares at this site.

In the five excavated squares shown in Figure 43, the percentages by level (open bars) and the percentages by square (black bars) indicate that the Clement series occurred later than the Vincent, supporting the relationship between these series seen at the Gaston site.

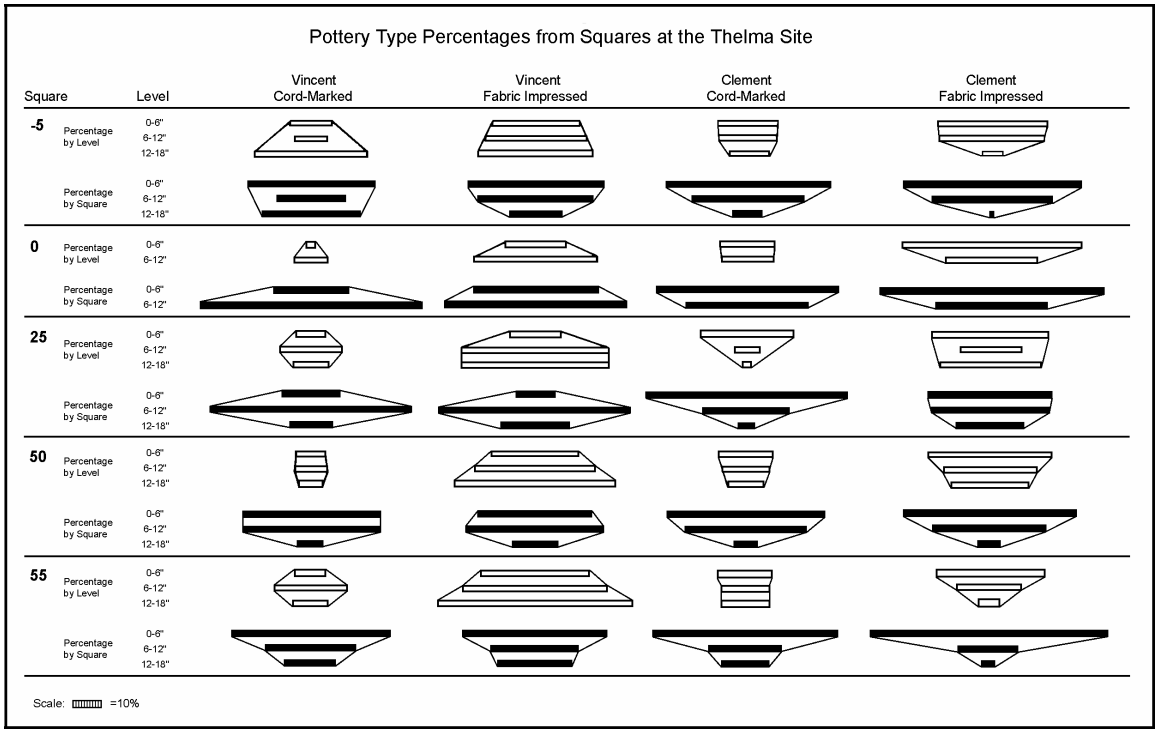


Figure 43. Pottery type percentages from squares at the Thelma site.

The Artifact Relationships at the Thelma Site

The Thelma Projectile Point

The Thelma point was so named because of the association of this type point with the Thelma site, which I named after the little nearby settlement of Thelma. Of the 32 points of this type found in the basin through surface surveying and excavation, half of them were found at the Thelma site. Four were found during the surface survey of the site, and 12 were recovered during excavation of levels (Table XXIII). Ten of these 12 were in the second and third levels. The association with the Vincent type pottery is quite apparent, although the type was not found in any large numbers in the survey. At the Gaston site the four Thelma points found during excavation of the levels were in the second and third levels, which would place them well below the Clarksville type. In Table XII, two Thelma points are shown associated with Vincent type sherds in features at the Gaston site, and I think this relationship is a valid one.

These associations are very meager compared with evidence for some other types, but the indications all point to a Vincent type pottery association for the Thelma point. Other artifacts recovered from the pottery levels at the Thelma site are listed in Table XXIV.

Table XXIII. Projectile Points from the Pottery Levels at the Thelma Site.

	Types of Stone					
Projectile Points	**Slate**	**Quartzite**	**White Quartz**	**Felsite**	**Total**	**Type %**
Clarksville	0	0	0	0	0	N/A
Roanoke						
Level 1	2	-	1	-	3	75.0
Level 2	-	-	1	-	1	25.0
Level 3	-	-		-	0	
Total	2	0	2	0	4	100.0
Large Triangle						
Level 1	-	-	-	-	0	
Level 2	-	-	1	-	1	100.0
Level 3	-	-	-	-	0	
Total	0	0	1	0	1	100.0
Small Stemmed (Thelma)						
Level 1	-	-	2	-	2	16.7
Level 2	3	1	4	-	8	66.6
Level 3	2	-	-	-	2	16.7
Total	5	1	6	0	12	100.0
Small Oval Blade*						
Level 1	-	-	1	-	1	33.4
Level 2	-	-	2	-	2	66.6
Level 3	-	-	-	-	0	
Total	0	0	3	0	3	100.0
Large Oval Blade*						
Level 1	-	-	-	-	0	
Level 2	-	-	-	1	1	100.0
Level 3	-	-	-	-	0	
Total	0	0	0	1	1	100.0
Savannah River*						
Level 1	-	-	1	-	1	100.0
Level 2	-	-	-	-	0	
Level 3	-	-	-	-	0	
Total	0	0	1	0	1	100.0
Halifax*						
Level 1	1	-	3	-	4	66.6
Level 2	-	-	-	-	0	
Level 3	-	-	2	-	2	33.4
Total	1	0	5	0	6	100.0
Guilford*						
Level 1	-	-	-	1	1	50.0
Level 2	-	-	-	-	0	
Level 3	-	-	1	-	1	50.0
Total	0	0	1	1	2	100.0

*See Table XX for the distribution of Savannah River, Halifax, Guilford, and Oval Blade projectile points in pre-pottery levels at the Gaston site.
Note: Level 1 = 0–6", Level 2 = 6–12", and Level 3 = 12–18".

Table XXIV. Artifacts from the Pottery Levels at the Thelma Site.

Artifact Type	Count	Artifact Type	Count	Artifact Type	Count
STONE OBJECTS		**Pitted Stones**		**Fired Clay Daub**	
Abraded Stones		Level 1	0	Level 1	0
Level 1	0	Level 2	1	Level 2	8
Level 2	1	Level 3	0	Level 3	0
Level 3	0	Total	1	Total	8
Total	1	**Steatite Sherds**			
Pecked Stones		Level 1	1	**BONE OBJECTS**	
Level 1	3	Level 2	0	**Bone Awls**	
Level 2	6	Level 3	0	Level 1	0
Level 3	2	Total	1	Level 2	1
Total	11			Level 3	1
Center Pecked Stones		**CLAY OBJECTS**		Total	2
Level 1	0	**Clay Pipe Fragments**		**Bone Fishhooks**	
Level 2	0	Level 2	1	Level 3	1
Level 3	1				
Total	1				

Note: Level 1 = 0–6”, Level 2 = 6–12”, and Level 3 = 12–18”.

Table XXV. Sherd Counts for the Control Squares at the Thelma Site.

Square and Level	Vincent Cord	Vincent Fabric	Clement Cord	Clement Fabric	Type I Cord	Type I Fabric	Net I	Net II	Gaston Simple Stanped	Total
Square -5										
Level 1	37	76	53	95	-	-	1	-	-	262
Level 2	20	63	36	63	2	1	1	-	-	186
Level 3	28	28	9	5	-	-	1	3	-	74
Square 0										
Level 1	9	67	59	188	-	-	-	3	-	326
Level 2	27	97	40	69	-	-	-	-	-	233
Square 25										
Level 1	15	24	44	53	4	-	-	1	-	141
Level 2	53	120	19	50	3	-	-	1	-	246
Level 3	11	43	3	29	-	-	-	1	-	87
Square 50										
Level 1	11	33	21	46	-	-	-	-	2	113
Level 2	11	40	16	30	-	-	-	2	-	99
Level 3	2	13	3	6	-	-	-	-	-	24
Square 55										
Level 1	16	55	28	56	-	-	-	-	-	155
Level 2	9	32	11	14	-	-	-	-	-	66
Level 3	5	28	7	3	-	-	-	-	-	43

Note: Level 1 = 0–6”, Level 2 = 6–12”, and Level 3 = 12–18”.

An Interpretive Summary of the Archaeological Complexes at the Thelma Site

The earliest evidence for the occupation of the Thelma site by an Indian group is the presence of a Morrow Mountain type projectile point on the surface. This point is known to pre-date the Guilford type, as revealed through excavations conducted by Joffre Coe at a site in piedmont North Carolina.[1] Little else is known of this early point, but it is thought to date perhaps as early as 8,000 years ago. Also found on the surface was a Guilford projectile point. This point is the only evidence for the presence of the Guilford complex at the Thelma site.

Seven Halifax points were found on the surface at the Thelma site and represent an occupation there as early as 5,000 years ago, as revealed by radiocarbon dates from the Gaston site. Also found on the surface at the Thelma site were one Large Oval Blade and a Savannah River projectile point. The Savannah River complex represented by these artifacts was dated at the Gaston site as being 4,000 years old.

None of these artifacts, representing early pre-pottery occupations of the Thelma site, were found stratigraphically at the Thelma site. A small exploratory shaft was dug at the site in an attempt to locate a deeper layer of cultural material, but perhaps due to the smallness of the trench, no chips were found after digging to a depth of eight feet. Perhaps if a 10-foot square had been excavated, stratigraphic cultural material could have been located.

In excavation of the midden accumulation on this site, two predominant pottery series were present. These were the Clement and the Vincent pottery series. Only two sherds of the Gaston type were found. This lack of the Gaston type pottery indicates that the site was occupied before the Gaston pottery became the popular type. The absence of all but one Clarksville type projectile point also indicates the close relationship between the Gaston pottery and this type arrowhead.

At this site the Clement type pottery occurs higher in the ground than the Vincent type. This separation is much clearer here than at the Gaston site where more disturbance of soil layers had taken place.

Associated with the Vincent type pottery at the Thelma site was the small-stemmed Thelma projectile point. It resembles a small Savannah River type and may represent the continuation of the stemmed projectile point tradition into bow-and-arrow times.

An important aspect in the interpretation of the cultural complexes within the basin was revealed at the Thelma site. This was the finding of the ossuary associated with Vincent type pottery. At the Gaston site no Vincent associated burials were found, indicating some method of burial other than in pits. This could be in the form of scaffold burials with the collected bones being placed in an ossuary at periodic intervals. And without the excavation at the Thelma site, this would only have been a conjecture.

As it is, however, I now believe that the makers of Vincent type pottery buried their dead in common ossuaries after placing them on scaffolds for a period of time before interment. The skeletal material from the ossuary at the Thelma site indicates that this was the case. Several skull fragments were found with old breaks, and several incomplete fragments of skulls were found in the ossuary.

The skulls from the ossuary (Plate 54) were examined by Marshall Newman at the Smithsonian Institution in Washington, and his report is included in the Appendix A. He reports that the skulls from the Gaston site and the Thelma site are both of the same basic

type, with the ossuary skulls from the Thelma site being somewhat longer-headed. Both the Gaston and Thelma skulls are Neumann's Lenapid or Hrdlička's Algonkin variety. This is in agreement with the pottery evidence which indicates that a continuous cultural tradition took place within the basin during pottery-making times.

In summary, the evidence indicates that the Thelma site was occupied during the Vincent period and the early part of the Clement period, and was abandoned sometime before the Gaston pottery type became popular. This must have been sometime before 500 years ago. From the excavation at this site it was found that, during the Vincent pottery period, one means of interment of the dead was by scaffold and ossuary. A small stemmed arrowhead, which I have called the Thelma point, was used during the Vincent pottery-making period and appears to be associated with this type of pottery.

Before the site was occupied by pottery-making people, it was used at various times during the past 8,000 years as an occupation site, as revealed by four pre-pottery projectile points representing four different archaeological complexes.

CHAPTER 8

AN INTERPRETATION OF THE CULTURAL HISTORY IN THE ROANOKE RAPIDS BASIN

A Comparative Summary of the Archaeological Complexes in the Roanoke Rapids Basin

The earliest archaeological complex found in the Roanoke Rapids basin is represented by a fluted Folsom point. This widely distributed projectile point type is known to date between 8,000 and 12,000 years ago in the southwestern part of the United States.[1] A point of this type, made of crystal quartz and ground along the basal edges, was found by a resident of the area near the western boundary of the present survey. The typological similarity between this point and those found in the Southwest, as well as in Georgia,[2] Tennessee,[3] Virginia,[4] and other eastern states,[5] indicates that this point represents an early complex of widespread distribution over the United States.

Also representing an early complex is the concave-base, side-notched, slightly fluted projectile point found associated with a fluted type in a stratigraphic context by Joffre Coe in Piedmont North Carolina.[6] A point of this type was found on the surface at site $Np^{v}2$ and is the earliest type actually found during the present survey. These fluted type projectile points represent a culture period usually referred to as Paleo-Indian.[7]

The next oldest type complex in the basin is represented by the Morrow Mountain projectile point. This point is known to pre-date the Guilford complex and is thought to date between 7,000 and 8,000 ago.[8] It was found on the surface of sites but was not found stratigraphically in the present survey. It is typologically similar to the early Western type known as the Gypsum point.[9]

The Guilford complex was represented on the surface of several sites and stratigraphically at the Gaston site. The Guilford projectile point is suggestive of the Yuma point of the Southwest and later similar types.[10] It was found stratigraphically below the Halifax complex, which would place it between 5,000 and 6,000 years old.

The Halifax complex was represented by several projectile points found on the surface of several sites, and was found stratigraphically above the Guilford complex at the Gaston site. Radiocarbon dates from hearths place it between 4,000 and 5,500 years ago. It resembles other early types in that it has a ground base and the notches are ground. The type is often seen in surface collections along with the Guilford type.

The Savannah River complex was found on a number of sites in the basin survey, and was found stratigraphically above the Halifax complex at the Gaston site. A radiocarbon date places this occupation of the basin at 4,000 years ago. This complex is related to types with a wide distribution from Delaware to Alabama[11] and is associated with the pre-pottery phase of the culture period known as the Late Archaic.[12] The same type was found at Stallings Island, Georgia, in a transitional context from pre-pottery to early

fiber-tempered pottery types,[13] but in North Carolina it has only been found stratigraphically in a pre-ceramic context.[14]

There is some small evidence at the Gaston site to indicate that an occupation by people using the pecked-grooved ax, steatite pot, and Savannah River point occurred at the bottom level of the midden accumulation of the pottery-making occupation of the site. This was in the form of steatite sherds and a grooved ax found in the yellow sand under the midden accumulation on the site, after the bulldozers had removed the midden. Otherwise, the Savannah River complex did not contain steatite sherds, or at least we found none in our search in the stratified levels.

The earliest pottery represented in the Middle Atlantic states is a steatite-tempered ware characteristic at the Koens-Crispin, Salisbury, and Goose Island sites in New Jersey, and at the Selden Island site near Washington, DC.[15] These sites are thought to represent the transition from steatite to clay vessels, with the crushed steatite fragments being the remains of steatite pots added to the clay paste.[16]

No steatite-tempered clay pottery was found in the present survey, indicating that such a transition from Archaic to Woodland culture periods did not take place in this manner in the Roanoke Rapids basin.[17]

The earliest clay pottery types in Georgia,[18] Florida,[19] and elsewhere in the Southeast are fiber-tempered wares. It has been suggested that in this southern area where steatite vessels were not used in Archaic times to any great extent, perhaps the transition was from baskets to clay pottery tempered with fiber, as a symbolic basket substitute, rather than from steatite pots to clay pottery tempered with steatite. This type of early pottery is thought to be the result of stimulus diffusion of the pottery-making idea rather than a bodily introduction of clay pottery into the areas where it is found. This stimulus diffusion resulted in the fashioning of pots of clay in imitation of forms already existing in the receiving culture and perhaps utilizing fragments of steatite or fiber as symbolic substitutes for the familiar objects already existing in the culture.[20]

No fiber-tempered or steatite-tempered clay pottery was found in the present survey, indicating that those early types known as Early Woodland were not developed in the Roanoke Rapids basin.[21] However, another type of pottery also known as Early Woodland does occur in the basin. This is a granular-tempered ware with a cord-marked or fabric-impressed surface finish and a concoidal base, represented in this report by the Vincent series.

This Early Woodland pottery, it is now rather commonly believed, came into the area from northeast Asia. In northern Asia this ware is associated with the same general types of burials and mound construction found in the eastern United States.[22]

The Early Woodland Vincent series pottery is a well developed type in form and method of manufacture, indicating that it was not a result of a slow development from stimulus diffusion, but diffused bodily into the area. The direction of this diffusion was from the north and was the result of a tradition stemming from Asia.

All change is not accounted for by migration, as some have suggested. However, since there is little evidence of a slow developmental transition from the Archaic to the Early Woodland periods, I think that the Early Woodland culture found in the Roanoke Rapids basin was a result of bodily diffusion of traits through the migration of people from the north. The only evidence of a possible transition is in the Thelma projectile point, which may represent a development from a stemmed spearpoint tradition to a

triangle arrowhead tradition. Also associated with the Vincent pottery at this early time period was the boatstone atlatl weight, which may also be indicative of a transition from the use of the atlatl to the use of the bow-and-arrow as the primary weapon, because of the association here with triangular arrowheads.

The Vincent pottery is typologically similar, except for the surface finish, to what Stephenson describes as Pope's Creek, a type that he places in a context similar to that for the Vincent pottery.[23] Also similar to the Vincent type pottery is Evans' Prince George Series, about which he says:

> In Virginia, Maryland, New Jersey, and Pennsylvania, there is a widespread and early distribution of pottery varieties typified in Virginia by the fine, sand-tempered wares of the Stony Creek Series, and the round, gravel tempered wares of the Prince George Series. With all these types fitting into the earliest part of the Virginia, Maryland, New Jersey, and Pennsylvania sequences, there is a strong suggestion that this area had a common ceramic origin.[24]

From this, it would appear that the Vincent series is related to similar cord and fabric impressed wares to the north at a similar time period. The time of the introduction of the Vincent series into the basin, as indicated by radiocarbon dates, would be around AD 500.

The Clement series, which developed out of the Vincent tradition, compares typologically to what Stephenson calls Accokeek ware,[25] which he places in the Middle Woodland period.[26] He says that it is related to the Stony Creek, Prince George, and Albemarle series described by Evans, and as has previously been stated, the Clement series is typologically similar to the Stony Creek series.[27]

The Gaston pottery developed from a Vincent–Clement tradition and was influenced by ceramic traditions from the south by way of the west. The flaring, folded rims with notching, and the decoration of the neck by smoothing, scraping, and incising have been pointed out as influences from the Clarksville, Virginia, and Dan River areas.[28] The Clarksville area lay in the main north-south trade path and probably received the southern influences first. From there the introduced pottery traits were diffused down the river to the Roanoke Rapids area.

The simple-stamped surface finish on the Gaston type pottery is similar to Hillsboro Simple Stamped pottery from the Occaneechi occupation at Hillsborough, North Carolina, in 1700–1729.[29] Before the Occaneechi moved to Hillsborough, they were living at Clarksville, and the two occupations are separated by only two generations. When they moved south, they abandoned their net-impressed surface finish for pottery and began using a carved simple-stamped or check-stamped paddle.[30] This indicates a southern origin for the simple-stamped and check stamped tradition. Since the Gaston Simple Stamped and the Check Stamped types are the latest pottery styles in the Roanoke Rapids basin, this carved-paddle tradition evidently entered the area of northern piedmont North Carolina at a late date from the south.

From where in the south did the stamping tradition come? Wauchope says in regard to simple-stamped pottery in northern Georgia: "This decoration occurs in all archaeological phases in northern Georgia."[31] He says that, along with the early fabric-impressed pottery of central Georgia, there occurs Mossy Oak Simple Stamped pottery of Early Woodland times which later developed into Deptford Simple Stamped and then into Etowah Simple Stamped of the Early Mississippi period. Then it developed into

Lamar Simple Stamped of the Late Mississippi period.[32] The check-stamped tradition had a similar evolution.

The Lamar Simple Stamped and Check Stamped types are similar to the Gaston Simple Stamped and Check Stamped types. This long developmental sequence of simple-stamped types does not occur in the Roanoke Rapids basin, indicating that the Lamar stamping tradition from the south was influencing the Roanoke Rapids area during the late protohistoric times.

This conclusion is in agreement with that of Coe, who says that the Catawba-Lamar influence had become dominant in central North Carolina by 1700.[33] Evidently this influence was felt as far northeast as the Roanoke Rapids basin where it is manifested in the Gaston Simple Stamped pottery.

The folded rims and rounded base characteristic of the Gaston series is also found on vessels of the Radford series from western Virginia.[34] Since folded rims are seldom found in piedmont North Carolina, and since the primary pottery influences producing the Gaston series pottery apparently came from the west, it is thought that the folded rim tradition moved east into the Roanoke Rapids basin from the western Virginia area.

It is interesting to note that although simple stamping continued late in north Georgia, it was a minority type, the majority type being complicated stamping. It would appear that when the idea of simple stamping was introduced into the Roanoke Rapids area, the change from cord-wrapped paddle stamping to sinew-wrapped or carved-paddle simple stamping was an easier transition than to complicated stamping. Therefore, a minority type within the culture from which the ideas were diffusing was more acceptable than the majority type, and was made the majority type in the receiving culture. Some experimentation with check stamping was tried, but neither this nor complicated stamping had the appeal that simple stamping had for the women who made the pottery in the Roanoke Rapids basin.

The origin of the changing rim form and surface finish on the Gaston pottery during the late occupation in the basin is from the south; however, the similarity with the Clarksville area indicates that this southern influence came from the west, down the river from the Clarksville area. Since no complicated-stamped sherds were found in the basin, the origin of this type surface finish on pottery is not a concern here, but Sears has pointed out that early complicated stamping of the Napier type has a strong typological relationship to the earlier Mossy Oak Simple Stamped type.[35] If the ceramic history in the Roanoke Rapids basin had not been suddenly interrupted by the invasion of the Europeans, it is conceivable that a complicated-stamped type would have been adopted as the popular surface finish at a later time.

Another indication of influence from the south is the presence of pentagonal projectile points typical of the Pee Dee focus in south-central North Carolina during the period between AD 1550 and 1650.[36]

A type similar to the Gaston pottery is described by Stephenson and called Potomac Creek ware. This type is described as having flaring rims, with an occasional rim fold, and semi-conical bases. Also present are smoothed neck areas with incising of the neck and shoulder area.[37] Although this ware is cord marked, the other typological resemblances are with the Gaston pottery. Also described as part of the Potomac Creek focus is the presence of stockaded walls and clay pipes with rouletting, or what is called fine cord-marked decorations in bands around the stem. Stephenson calls these Potomac

Cord Impressed pipes, and they are almost identical to fragments found on the Gaston site.[38] The Potomac Creek focus is assigned to the Late Woodland period, which fits well with the ceramic styles present in the Roanoke Rapids basin at the same time. From this evidence it would appear that some influence from the north was also present during the Gaston occupation of the basin.

In summarizing the Accokeek ware, which is the pottery from the Accokeek site on the Potomac River relating to the Clement series, Stephenson says that it is related to a "wide-spread ceramic tradition with generalized affiliations over a large portion of the northern United States."[39]

In summarizing the Stony Creek and Prince George series in the southeastern Virginia area, which relate to the Vincent–Clement tradition, Evans says:

> This ceramic picture suggests the occupation of southeastern Virginia by one cultural group, rather free from external influences, but undergoing internal cultural changes, all of which were reflected shifts in popularity of certain pottery types.[40]

In summarizing the Vincent–Clement–Gaston ceramic tradition, it can be said that it probably had its origin along with other similar traditions, toward the north, originally in Asia, and that it developed along much the same lines as these related ceramic traditions. During the last part of the developmental sequence, certain pottery styles from the south and west began to influence the potters in the Roanoke Rapids basin, by way of contact with the Siouan groups up the river to the west. No sudden movement into the area of a different people is postulated to explain the new elements appearing on Gaston type pottery, as Evans does to explain the differences between the Clarksville and an earlier series called the Roanoke series by Coe[41] and later referred to by Evans as an "Unclassified Series."[42] The changes in pottery can be explained through diffusion of ideas into the area, resulting in certain changes in pottery design and form. The source of these influences has been discussed in this section.

In the introduction (Chapter 1), three questions were asked in regard to the prehistory of the Roanoke Rapids basin. These questions were:

1. What culture complexes had once existed in the area?
2. What was their relative and absolute chronology?
3. How do they fit into the overall picture of aboriginal cultural development in the area?

These questions have been answered in the foregoing sections; however, one question I had in mind when the survey began was a secondary one relating to the question of historic Algonquian-Siouan relationships in the Roanoke Rapids basin.

In dealing with language families, it should be remembered, as Coe has pointed out, "there is no necessary relationship between the language a people spoke and the other elements of their culture."[43] For this reason, and since there is no historical information citing the type of language spoken by the occupants of the basin, the answer as to whether they were Algonquin, Siouan, or Iroquoian-speaking people cannot be answered. However, the cultural remains, as has been pointed out in this report, show a strong influence from the Siouan cultures to the west during the late period and extending into historic times.

These influences are in the form of pottery and projectile point forms, which diffuse much faster than do traits of social organization and religion. Therefore, the people

occupying the Roanoke Rapids basin during historic times may have been Algonquian-speaking people with Algonquian-type social organization, worshiping Algonquian gods, and making pottery and using arrowheads typical of the Siouan-speaking people in the Piedmont.

They could have been the Iroquoian-speaking Tuscarora, with a Tuscarora society and religion, and making Gaston type pottery. They could have also been a Siouan-speaking group making pottery similar to their cousins further up the river. The answer to this question will never be known with certainty. We can know what their culture was like from such an analysis as has been presented in this survey, and we now know that the culture of the people living in the Roanoke Rapids basin during the latest period of Indian occupation was influenced by, and was very similar to, the culture of the Siouan-speaking Indians living up the river to the west, near present Clarksville, Virginia.

An Inferential Summary of the Prehistoric Cultures in the Roanoke Rapids Basin

The archaeologist is an anthropologist who prefers to study culture through an analysis of the remains of prehistoric groups and arrive at a picture of the culture of these groups from the clues they have left behind. The surface survey, the excavation, and the analysis and interpretation of the data through archaeological methods are designed to reveal to the anthropologist the way of life of the people whose cultural remains are under study.

Walter Taylor has appealed to archaeologists to place more stress on the construction of the cultural context of the people represented by the artifacts they are studying.[44] This appeal was needed, since many archaeological manuscripts were purely descriptive in nature, with no conclusions as to the cultural significance or relationships of the data presented. The method he suggests, that of taking the "Outline of Cultural Materials," going through it step by step and comparing each category with the archaeological data, and then inferring something of the social organization, religious practices, kinship system, and such of the culture represented by his archaeological assemblage, seems to be a more detailed method of inference or speculation than most monographs can support.[45] Such a detailed inferential analysis of the data was not attempted here because I felt, along with Ford, that:

> If traces of ancient political ideas, religious practices, or forms of social organization were preserved and could be sampled and classified, then archaeologists certainly would take advantage of such material. Unfortunately, these are not available to us, and we are forced by circumstances to rely on more durable cultural equipment.[46]

Some speculative statements inferred from the data are made in the summary to follow. In this inferential summary, the early fluted point complexes, the Guilford complex, the Halifax complex, and the Savannah River complex, usually referred to as the Paleo-Indian and Archaic periods, will be called the Early Hunters.[47] The cultures represented by the Vincent–Clement–Gaston complexes, which would traditionally be placed as belonging to the Middle and Late Woodland periods, will be called the Late Hunters.[48] Although during the Gaston period agriculture was probably a major source of food, the evidence is small compared to the large amounts of animal bone associated with

garbage pits containing Gaston cultural material. For this reason, the Gaston complex was also included in this Late Hunter classification.

The description of the way of life of these hunters is a speculative summary based on evidence found during the present survey, and by extension and analogy with living groups whose economy results in the production of culture traits similar to those traits found in an archaeological context. By analogy with these groups, and with a knowledge of the general evolutionary development of cultures, it is possible to convert archaeological complexes into a speculative picture of the culture that produced the artifacts found by the archaeologist. The following picture of the Early and Late Hunters who occupied the Roanoke Rapids basin is such a speculative reconstruction, based on inference.

The Early Hunters

Because of the limited distribution and scarcity of cultural remains on the sites of these Early Hunters, it is thought that they traveled in small family groups. They probably spent most of their time procuring food, which they hunted with spears thrown by hand or perhaps by use of a spear thrower (atlatl). However, no atlatl weights of stone were found in the present survey in an Early Hunter context. The animals they hunted are thought to have been large herding animals such as the bison and the elk, though no identifiable bone fragments were found at the Early Hunter levels in the present study.

They supplemented this diet of meat by gathering nuts, roots, and perhaps a few wild plant foods, as indicated by the presence of nutshell in the oldest hearth found during the excavation of the Gaston site, and by the presence of shallow stone mortars in the Halifax complex. They cooked their meat on hearths of stones, found in quantity in the Halifax complex.

The presence of fire-cracked stones indicates that stone boiling may have been one means of cooking, since no pottery of any kind is associated with these Early Hunters. Some groups of Early Hunters preferred stemless projectile points, and others made spear points with stems or notches to aid in fastening them to the shaft. These stone points were chipped by pressure flaking or by percussion with another stone. Another weapon and tool was a chipped-notched ax with which they could kill an enemy or cut down a tree. Along with whatever wooden tools and weapons they may have had, these spears and axes served as adequate tools for several thousand years.

Occasionally the river along which they were hunting and camping would rise in a flood, burying their hearths, axes, and spears under layers of sand, while they fled to higher ground. After the flood subsided, later groups of hunters would choose the same site for camping at periodic times, until another flood and the pattern was repeated.

These Early Hunters probably moved a lot in search of good hunting grounds where food was plentiful. The absence of any evidence for houses indicates that they probably had temporary shelters or lean-tos made of a few poles and covered with hides of animals.

This way of life was not conducive to the gathering of large groups into towns and villages, perhaps because the methods of hunting were more successful when comparatively small groups stalked the animals. A small group needed a lot of hunting territory; therefore, a large settlement could not be supported by a small territory around the village. For this reason, this way of life would continue for thousands of years, until a

more efficient means of utilizing the energy resources in plants and animals was found—the basic element in cultural adaptation.[49]

This pattern of life has been found represented in complexes in various parts of North and South America during these years of the Early Hunters. These Early Hunting people lived in the Roanoke Basin until about the time of Christ, and then around AD 500 some changes began to take place in the way of life in the basin. New means of utilizing the plant and animal energy resources were introduced. Several new ideas seem to have developed or been introduced together. These new sources of power were the bow-and-arrow, the knowledge of agriculture, and the knowledge of how to make clay pottery.[50] The remains of the cultures in which these new ideas were used have been described in this report as the Vincent, the Clement, and the Gaston complexes.

Because little evidence for a transition between the Early Hunter cultures and these later cultures was found in the basin, it is thought that these new ideas were possibly brought into the area along with a new group of people. During the period of over 1,000 years when these later ideas dominated the cultures in the basin, a number of changes took place, but basically these people were hunters just as the Early Hunters had been, except they were able to kill a wider variety of animals for food with much less effort than had the Early Hunters. The way of life of these later hunters will be described as the Late Hunter culture period in the basin.

The Late Hunters

When the Late Hunters lived in the area around the Roanoke River, they were excellent potters. They made straight-sided, pointed-base, cord-marked and fabric-marked pottery to use for storing food and for cooking. Although they may have grown some crops such as corn, beans, and squash, it is doubtful that this activity was of any great importance. Hunting was the main means of getting food, and with the bow-and-arrow as their main weapon, they could hunt and kill much more game, and of a wider variety, than the Early Hunters. They chipped small, stemmed arrowheads, along with a triangle type, from slate and white quartz. They also had the atlatl and fastened a hemispherical, hollowed boatstone on the shaft of the atlatl by means of a groove around the stone. This weapon was abandoned later for a complete reliance on the bow-and-arrow.

Animals hunted and used for food were the deer, elk, raccoon, turkey, turtle, fox, goose, beaver, woodchuck, muskrat, opossum, skunk, and fox squirrel. From the river, mussels were taken, and fishhooks of bone were used to catch fish.

These people brought the dog with them when they came into the basin and had such an attachment for them that they buried them in graves, especially during their later period of living in the basin.

These people still collected nuts and wild plants for food to supplement what little plants they were growing. They still ground these plants, and meat, by using grinding stones made of a rock picked up from the bank of the river.

They probably had clothing made of fibers of wild hemp and flax, and from tree bark. They also, no doubt, used skin clothing as had the Early Hunters. They used bone needles to sew these fabrics and bone awls to pierce holes in leather.

To aid in working wood, and as a weapon, they used a polished stone celt fastened into a hole in a wooden handle. Some of the later Early Hunters had made axes with a

pecked groove extending around the stone in order to seat the handle properly. This type of ax was not used by these Late Hunters.

These people, because they had a surplus of food due to the increased food-getting power of the bow-and-arrow, lived in larger groups in villages. These villages contained several hundred people living in houses constructed of poles fastened in the ground and pulled together and tied at the top. These domes were then covered with skins and bark, and during the later period may have been plastered with mud daub.

They buried their dead by placing them on a scaffold; later, they would collect the bones and bury them in a common pit or ossuary. At a later period of time, the group began burying their dead in round or oval pits in a flexed position.

These people were of the physical type that later developed into the historic Algonquian Indian groups. The earliest group had somewhat longer heads than their descendants 1,000 years later.

The pottery style gradually changed from a pot form with a pointed base to a vessel with a slightly rounded base and slightly flaring rim. The paste was not so hard as the early pottery had been, and the pots probably broke more frequently. At a still later period, the style developed into a more elaborately decorated and incised pottery with flaring and folded rims. These new changes were evidently brought about as a result of contact with the Piedmont groups further up the river to the west, where this type of pottery was also popular.

At the later period of the occupation of the site, there was an increase in the making of smoking pipes of clay. This indicates that tobacco was being raised in some quantity by this time, and corn was probably also being grown more than previously and was beginning to take an important place in the economy of the people.

During this last period of occupation of the basin, the arrowhead style changed from a medium-sized isosceles triangle to a small equilateral triangle point that was also popular among the Siouan groups to the west at the same time. Some contact occasionally took place between coastal groups and the people living in the basin, and the idea of tempering pottery with shell was experimented with, but the main influence on the pottery styles at this later period was from the Siouans living in the Piedmont.

European trade pipe fragments in the basin indicate that the Late Hunting groups lived in the basin until contact was made with the European invaders.

During this last period the people in the basin began to feel afraid of attack from enemies, and they built stockade walls around their villages to insure their safety. This was not enough to prevent the almost total annihilation of the Indian groups in the area by disease and bullets from the invading Europeans. Just what happened to this last group who lived in the basin is not known, but it is assumed their fate was the same as the other Indian tribes in the Virginia-North Carolina area.

This concludes the archaeological probing into the culture history of the Native Americans who once lived in the Roanoke Rapids basin. I believe the presentation of these data and the conclusions I have drawn from them have answered, to some extent at least, the questions I asked before the study began. It is hoped that it can prove of value to students of culture and other scholars in comparative studies of Native American cultures occupying the North Carolina-Virginia area during the past 10,000 years.

APPENDIX A
REPORT OF THE SKELETAL MATERIAL

by
Marshall T. Newman

The report of Marshall T. Newman, Associate Curator of Physical Anthropology at the Smithsonian Institution, Washington, DC, on the skeletal material from the Gaston (Hx^v7) and Thelma (Hx^v8) sites in the Roanoke Rapids Basin, Roanoke Rapids, North Carolina, June 17, 1957.

Skulls from the Thelma Site (Hx^v8)

Burial 1 Posterior calva and mandible lacking condyles; sex - ?, possibly male; age = ± 30 years; maximum breadth = 139 mm; low occiput; type = probably Neumann's Lenapid.

Burial 2a Restored calva and most of mandible; sex = male; age = 40–50 years; glabello-occipital length = 192 mm; maximum breadth = 131 mm (?) (warping and incompleteness); auricular height = 115 mm (?); low pinched occiput; type = Neumann's Lenapid.

Burial 2b Warped calva and right half of mandible; sex = male; age = 20–25 years; minimal frontal diameter = 93 mm; un-measurable but patently long-headed; small parietal losses; flat temporals; type = Neumann's Lenapid.

Skull 3 From ossuary; part of frontal and anterior parietals; sex = ?; age = 35+; no other data.

Burials from the Gaston Site (Hx^v7)

Burial 1 Complete restored calvarium (skull and mandible); sex = male; age = 40–45 years; glabello-occipital length = 178 mm; maximum breadth = 139 mm; ba-bregma height = 144 mm; minimum frontal diameter = 92 mm; total facial height = 120* mm; upper facial height = 70 mm; bizygomatic diameter = 144 mm; nasal height = 51 mm; nasal breadth = 26 mm; type = Neumann's Lenapid. (*4 mm added for tooth wear.)

Burial 2 Fragmentary incomplete calve and mandible; sex = female; age = 35–45 years or more; maximum breadth = 139 mm (?); bigonial breadth = 75 mm; low slightly pinched occiput; type = probably Neumann's Lenapid.

Burial 4 Fragmentary incomplete calva and mandible; sex = female; age = adult (young?); glabello-occipital length = ±195 mm; low pinched occiput; type = probably Neumann's Lenapid.

Burial 6 Very fragmentary and incomplete calva; sex = ?; age = 30 years or more; type indistinguishable; pathology indicated by small perforations in tabla interna of frontal and parietals, in one case penetrating completely through diploe and tabla externa.

Burial 9 Very incomplete calva; sex = female?; age = 35 years or more; minimum frontal diameter = 90 mm; vault appears rather broad; type = indistinguishable.

Comparison of Gaston and Thelma Skulls

There is no decided contrast between the two groups of skulls. If there were, the samples are so small it would be a matter of sheer conjecture whether the differences extended to the parent populations.

As near as I can tell, all skulls are Neumann's Lenapid (or Hrdlička's Algonkin) variety. The only possible difference may be that the Gaston site skulls are somewhat rounder, and the Thelma site skulls somewhat longer-headed. This is the same situation, still within one variety, that pertained at the northern Alabama Archaic site of Lu°25. There, the upper stratum skulls were rounder-headed than those of the lower stratum. The dividing line between strata was roughly pre-ceramic–early ceramic.

References

Hrdlička, Aleš

1916 *Physical Anthropology of the Lenape or Delawares, and of the Eastern Indians in General.* Bureau of American Ethnology Bulletin 62, Washington.

Neumann, Georg K.

1952 Archaeology and Race in the American Indian. In *Archaeology of Eastern United States,* edited by James B. Griffin, pp. 13–34. The University of Chicago Press, Chicago.

APPENDIX B
REPORT OF THE ANIMAL BONE

by
F. S. Barkalow

The report of Dr. F. S. Barkalow, head of the Zoology Department at North Carolina State College in Raleigh, North Carolina, on the mammal bone material from the Gaston and Thelma sites in the Roanoke Rapids Basin at Roanoke Rapids, North Carolina.

Gaston Site ($Hx^{v}7$)

Context	Catalog No.	Scientific Name	Common Name
Feature 2	619b693	*Odocoileus virginianus*	Deer
		Castor canadensis	Beaver
		Procyon lotor	Coon
		Didelphis marsupialis	Opossum
		Marmota monax	Woodchuck
		Meleagris gallopavo	Turkey
		-	Fish
		-	Turtle
Feature 8	619b728	*Ondatra zibethicus*	Muskrat
		Sciurus niger	Fox Squirrel
		-	Gar scales
		-	Catfish
		-	Fish bones
Feature 9	619b739	*Odocoileus virginianus*	Deer
		Canis familiaris	Dog
		-	Bird
		-	Fish
		-	Turtle
Feature 14	619b751	*Odocoileus virginianus*	Deer
		-	Turtle
Feature 19	6l9a768	*Meleagris gallopavo*	Turkey
	6l9b769	*Odocoileus virginianus*	Deer
		Procyon lotor	Coon
		Canis familiaris	Dog
		Meleagris gallopavo	Turkey
Feature 20	6l9b777	*Canis familiaris*	Dog
		Odocoileus virginianus	Deer
		Ondatra zibethicus	Muskrat
		Castor canadensis	Beaver
		Meleagris gallopavo	Turkey
		Procyon lotor	Coon
		-	Turtle

Gaston Site (Hx^{v}7) (continued)

Context	Catalog No.	Scientific Name	Common Name
Feature 26	619b795	*Meleagris gallopavo*	Turkey
		Odocoileus virginianus	Deer
		Procyon lotor	Coon
		Canis familiaris ?	Dog
		-	Turtle
		-	Bird
Feature 27	619b803	*Odocoileus virginianus*	Deer
		-	Turtle
Feature 28	619b809	*Meleagris gallopavo*	Turkey
		Didelphis marsupialis	Opossum
		Odocoileus virginianus	Deer
		Canis familiaris ?	Dog
		-	Turtle
		-	Bird
Feature 29	619b819	*Spilogale putorius*	Spotted skunk
		Ondatra zibethicus	Muskrat
		Didelphis marsupilis	Opossum
Feature 36	619b839	*Meleagris gallopavo*	Turkey
Feature 38	619a847	*Branta* (?)	Goose wing
	619b851	*Odocoileus virginianus*	Deer
		Ondatra zibethicus	Muskrat
		-	Turtle
		-	Bird
Feature 40	619b857	*Canis familiaris*	Dog
		Odocoileus virginianus	Deer
		-	Turtle
Feature 43	619b865	*Odocoileus virginianus*	Deer
		Didelphis marsupialis	Opossum
		Castor canadensis	Beaver
		Spilogale putorius	Spotted skunk
		Procyon lotor	Coon
		Meleagris gallopavo	Turkey
		Ondatra zibethicus	Muskrat
		-	Fish
		-	Bird
		-	Turtle
Feature 45	619b874	*Odocoileus virginianus*	Deer
		Meleagris gallopavo	Turkey
		-	Fish
Feature 47	619b883	*Sciurus niger*	Fox squirrel
		Odocoileus virginianus	Deer
		Meleagris gallopavo	Turkey
		Branta sp.	Goose
		Castor canadensis	Beaver
		Procyon lotor	Coon

Gaston Site (Hx^v7) (continued)

Context	Catalog No.	Scientific Name	Common Name
Feature 47	619b883	*Ondatra zibethica*	Muskrat
		-	Turtle
		-	Fish
		-	Large deer or Elk
Feature 48	619a891	*Meleagris gallopavo*	Turkey
	619a892		
	619b894	*Odocoileus virginianus*	Deer
		Didelphis marsupialis	Opossum
		Urocyon cinereoargentus	Gray fox
		Ondatra zibethica	Muskrat
		Procyon lotor	Coon
		Spilogale putorius	Spotted skunk
		M*eleagris gallopavo*	Turkey
		-	Turtle
		-	Bird
Feature 53	619b915	*Procyon lotor*	Coon
		Ondatra zibethicus	Muskrat
Feature 54	619b921	*Ondatra zibethicus*	Muskrat
Feature 55	619b924	*Odocoileus virginianus*	Deer
		Canis familiaris	Dog
		-	Bird
Feature 57	619b933	*Odocoileus virginianus*	Deer
		Castor canadensis	Beaver tooth
		-	Turtle
Feature 59	619a939	*Odocoileus virginianus*	Deer
	619b940	*Canis familiaris*	Dog
Feature 60	619b949	*Odocoileus virginianus*	Deer
		Castor canadensis	Beaver
		Ondatra zibethicus	Muskrat
		Mephitis mephitis	Striped skunk
		Lutra canadensis	Otter
		-	Turtle
		-	Mussel shells
Feature 62	619b959	*Odocoileus or Cervus*	Large deer or Elk
Feature 67	619b990	*Odocoileus virginianus*	Deer
		Meleagris gallopavo	Turkey
		-	Turtle
Feature 77	619b1028	*Odocoileus virginianus*	Deer
Feature 83	619b1037	*Canis familiaris*	Dog
Feature 93	619b1066	*Canis familiaris*	Dog
Feature 94	619b1067	*Canis faxniliaris*	Dog

Gaston Site ($Hx^{v}7$) (continued)

Context	Catalog No.	Scientific Name	Common Name
Feature 95	619b1076	*Procyon lotor*	Coon
		Odocoileus virginianus	Deer
		Meleagris gallopavo	Turkey
		-	Turtle
		-	Fish
		-	Bird
Feature 99	619b1089	*Odocoileus virginianus*	Deer
Feature 102	619b1103	*Canis familiaris*	Dog
		Procyon lotor	Coon
		Odocoileus virginianus	Deer
		-	Turtle
		-	Fish
Feature 105	619b1123	*Cervus arnericanus*	Elk
		Odocoileus virginianus	Deer
		Procyon lotor	Coon
		Spilogale putorius	Spotted skunk
		Castor canadensis	Beaver
		Didelphis marsupialis	Opossum
		Meleagris gallopavo	Turkey
		Canis familiaris	Dog
		Scalops aquaticus	Mole
		-	Fish
Feature 124	619b1205	*Meleagris gallopavo*	Turkey
		Sciurus carolinensis	Gray squirrel
		Sylvilagus sp.	Rabbit
Feature 125	619b1212	*Meleagris gallopavo*	Turkey
Feature 134	619b1232	*Canis familiaris*	Dog
Feature 148	619b1282	*Odocoileus virginianus*	Deer
		Ondatra zibethicus	Muskrat
		Meleagris gallopavo	Turkey
		Procyon lotor	Coon
		-	Turtle
		-	Bird
		-	Fish
Feature 150	619b1287	*Canis familiaris*	Dog
Feature 151	619b1287	*Canis familiaris*	Dog
		Homo sapiens	Human infant
Feature 156	619b1305	*Procyon lotor*	Coon
		Canis familiaris	Dog
		Sciurus carolinensis	Gray squirrel
		-	Turtle
		-	Fish
		-	Bird
Feature 157	619b1311	*Odocoileus virginianus*	Deer toe

Gaston Site (Hx^v7) (continued)

Context	Catalog No.	Scientific Name	Common Name
Feature 158	619b1316	*Odocoileus virginianus*	Deer
		-	Bird
		-	Turtle
Feature 161	619b1334	*Odocoileus* or *Cervus*	Deer or Elk
Feature 180	619b1382	*Odocoileus* or *Cervus*	Deer
		Sciurus carolinensis	Gray squirrel
		Procyon lotor	Coon
		Canis familiaris	Dog
		Sylvilagus floridanus or *transitionalis*	Rabbit
		Didelphis marsupialis	Opossum
		Meleagris gallopavo	Turkey
		-	Bird
		-	Fish
		-	Turtle
Feature 181	619b1390	*Odocoileus virginianus*	Deer
		Meleagris gallopavo	Turkey
		-	Bird
		-	Turtle
Feature 184	619b1399	*Odocoileus virginianus*	Deer
		Mephitis mephitis	Striped skunk
		Castor canadensis	Beaver
		Marmota monax	Woodchuck
		Meleagris gallopavo	Turkey
		-	Fish
		-	Turtle
Feature 190	619b1422	*Odocoileus virginianus*	Deer
		Procyon lotor	Coon
		-	Turtle
		-	Fish
		-	Bird
Feature 195	619a1438 619a1439	*Odocoileus virginianus*	Deer
	619b1440	*Odocoileus virginianus*	Deer
		Sylvilagus sp.	Rabbit
		Sciurus carolinensis	Gray squirrel
		Ondatra zibethica	Muskrat
		Meleagris gallopavo	Turkey
		Terrapene carolinensis	Box terrapin
		-	Turtle
		-	Fish
		-	Bird
Feature 198	619b1453	*Castor canadensis*	Beaver
		Odocoileus virginianus	Deer
		Procyon lotor	Coon
		-	Catfish spine
	619b1457	-	Snails
		-	Mussels

Gaston Site (Hx^{v}7) (continued)

Context	Catalog No.	Scientific Name	Common Name
Feature 199	619b1463	*Odocoileus virginianus*	Deer
		Ondatra zibethicus	Muskrat
		-	Turtle
		-	Bird
Feature 200	619b1473	*Odocoileus virginianus*	Deer
		Didelphis marsupialis	Opossum
		Procyon lotor	Coon
		-	Turtle
		-	Bird
Sq. 55L25 20–32” Level	619b448	*Ondatra zibethicus*	Muskrat
		Odocoileus virginianus	Deer
		Canis familiaris	Dog

Thelma Site (Hx^{v}8)

Context	Catalog No.	Scientific Name	Common Name
Sq. 65	620b108	*Odocoileus virginianus*	Deer
		Ondatra zibethicus	Muskrat
		Procyon lotor	Coon
		-	Turtle
		-	Bird
Sq. 70R5 6–12” Level	620b131	*Odocoileus virginianus*	Deer
		Urocyon cinereoargenteus	Gray fox
		Didelphis marsupialis	Opossum
		Ondatra zibethicus	Muskrat
		Procyon lotor	Coon
		-	Turtle
		-	Unknown vertebra
Sq. 0 6–12” Level	620b31	*Ondatra zibethicus*	Muskrat
		Odocoileus virginianus	Deer
		-	Bird
		-	Turtle
Sq. 60 6–12” Level	620b92	*Ondatra zibethicus*	Muskrat
		Odocoileus virginianus	Deer
		-	Fish
		-	Turtle
Sq. 25 12–18” Level	620a53	-	Worked fish spine ?
	620b55	*Sciurus carolinensis*	Gray squirrel
		Sylvilagus sp.	Rabbit
		Scalops aquaticus	Mole
		Odocoileus virginianus	Deer

Thelma Site (Hx^v8) (continued)

Context	Catalog No.	Scientific Name	Common Name
Sq. 25	620b55	*Marmota monax*	Woodchuck
12–18" Level		*Ondatra zibethicus*	Muskrat
		-	Fish
		-	Turtle
		-	Bird
	620m56	-	Marine shell
Sq. 60R30 Pit	620b97	*Procyon lotor*	Coon
		Ondatra zibethicus	Muskrat
		Corvus canadensis	Elk

Site Np^v2

Context	Catalog No.	Scientific Name	Common Name
Sq. 3	623b24	*Odocoileus virginianus*	Deer
0–7" Level		-	Turtle
Sq. 2	623b20	*Odocoileus virginianus*	Deer
0–14" Level		*Ondatra zibethicus*	Muskrat
		Cervus canadensis	Beaver
		-	Turtle
		-	Fish
Sq. 3 (Fea. 2)	623b33	*Odocoileus virginianus*	Deer
Sq. 3 (Fea. 3)	623b36	*Odocoileus virginianus*	Deer
		Ondatra zibethicus	Muskrat
		Urocyon cinerecargenteus	Gray fox
		-	Turtle shell

Site Np^v24

Context	Catalog No.	Scientific Name	Common Name
Sq. 2	646b15	*Odocoileus virginianus*	Deer
0–8" Level		*Marmota monax* ?	Woodchuck ?

APPENDIX C
1959 THESIS ACKNOWLEDGEMENTS

In the preparation of this thesis, in the field and in the laboratory, I am indebted to a number of people for the assistance they have given. I am especially grateful to Joffre Coe of the Research Laboratory of Anthropology at the University of North Carolina for guidance, encouragement, supervision, for making the funds available that made this project possible, and for placing the resources of the Research Laboratory of Anthropology at my disposal.

For help in conducting the archaeological survey and excavation, surveying sites, drawing maps, analysis of chip material, and for many weeks of backbreaking work, I am indebted to Lewis Binford who gave up a semester of summer school work in order to help with the project.

I am particularly indebted to my wife, Jewell, who walked many miles with me looking for sites, for days of shaking the sifter and excavating pits and burials, for preparing three meals a day, for spending the summer in a tent, for cataloging the entire mass of material collected during the survey and excavation, and for constant encouragement and good humor.

I am extremely grateful for the help given the project by Allen Hills, who volunteered his services for 10 hours a day for an entire month, and shoveled and sifted many tons of sand, greatly adding to the success of the project.

Others whose contributions made the venture more of a success than it would otherwise have been, and to whom I am grateful, are:

Mrs. Lewis Binford, for two weeks of digging and sifting, and for aid in preparing the meals;

Mr. and Mrs. Glenn L. Fulcher, for inviting us to many enjoyable meals and allowing us the use of their shower, which was quite a luxury after our baths in the Roanoke River;

Mr. and Mrs. Frank Hills and Mr. and Mrs. Julian Vaughn, for bringing us suppers in the field on several occasions, giving us a pleasant change from corned beef hash and beans;

Mr. Williams, of Williams Funeral Home, for making an awning available, giving us the only shade we had in the basin;

Mr. C. F. Gore, for cooperation in the use of road graders;

Mr. Glenn Fulcher, for use of bulldozers;

Mr. George Trexler, for operating the bulldozers;

Mr. McCord, of Stone-Webster Corporation, for medical aid, maps of the basin, and for cooperation in every way; and

Mr. and Mrs. J. H. Barnhardt (Jewell's parents), for baby-sitting with our son for the summer while my wife and I were excavating.

During the preparation of this report, I have received help from various specialists whose reports are included in the Appendix. To these individuals who spent considerable time and expense in preparation of this report, I want to express my sincerest appreciation:

Dr. F. S. Barkalow, head of the Zoology Department at North Carolina State College in Raleigh, with graduate students, identified the large amount of animal bone recovered from pits;
Dr. Roy Ingram, head of the Geology Department at the University of North Carolina, loaned a boat for use in the project and identified certain rock specimens;
Dr. Edison Adams, head of the Botany Department at the University of North Carolina, conducted an analysis of ethno-botanical material found during excavation;
Dr. Marshall T. Newman, associate curator of physical anthropology at the Smithsonian Institution in Washington, DC, analyzed the human skeletal material from the two major sites excavated, for which I am grateful; and
Dr. James B. Griffin is responsible for the radiocarbon dates obtained from charcoal associated with various culture complexes.

To these colleagues for their contribution toward the completeness of this report, I am extremely grateful.

Thanks to my sister, Mrs. James M. Storie, for taking time out from her family duties to do the formidable job of typing the manuscript. Thanks also to Ross Scroggs, my boss at the UNC Photo Laboratory, for cooperation in making duplicate copies of this report.

APPENDIX D
CATALOG NUMBERS AND PROVENIENCE FOR ARTIFACTS IN PLATES

Plate 21. Projectile Point Types.

Catalog No.	Site No.	Location
Row A, Thelma Small Stemmed projectile points.		
619a44	Hx^{v}7	Bank at 60R5
620a44	Hx^{v}8	Sq. 25, 6–12”
620a44	Hx^{v}8	Sq. 25, 6–12”
620a44	Hx^{v}8	Sq. 25, 6–12”
620a51	Hx^{v}8	Sq. 25, 12–18”
Row B, Projectile points included in “Other” category.		
619a28	Hx^{v}7	After scraper
630a2	Np^{v}8	Surface
620a8	Hx^{v}8	Surface
Row C, Morrow Mountain projectile points.		
619a247	Hx^{v}7	Sq. 35R85, 9–19”
681a2	Np^{v}58	Surface
619a1431	Hx^{v}7	Sq. -l0L10, Fea. 195

Plate 22. Savannah River Projectile Points.

Catalog No.	Site No.	Location
Row A, Small Savannah River type projectile points.		
619al269	Hx^{v}7	Sq. 35R235, Fea. 148
687a2	Hx^{v}13	Surface
619al58	Hx^{v}7	Sq. -70L60, 56”
619a129	Hx^{v}7	Sq. -60L60, 42”
Row B, Large Savannah River type projectile points.		
619a171	Hx^{v}7	Sq. -105R50, 47”
619a1013	Hx^{v}7	Sq. -60L215, Fea. 74
619a688	Hx^{v}7	Sq. 35R85, Fea. 2

Plate 23. Halifax and Guilford Projectile Points.

Catalog No.	Site No.	Location
Row A, Halifax type projectile points.		
619a134-5	Hx^{v}7	Sq. -60L60, 63”
619a155	Hx^{v}7	Sq. -70L60, 54”
619a162	Hx^{v}7	Sq. -70L60, 63”
619a161	Hx^{v}7	Sq. -70L60, 62”
619a162-2	Hx^{v}7	Sq. -70L60, 63”
619a125	Hx^{v}7	Sq. -28L76, 57”
Row B, Guilford type projectile points.		
619a134-1	Hx^{v}7	Sq. -60l60, 63”
619a125-1	Hx^{v}7	Sq. -28L76, 58”
619a162-1	Hx^{v}7	Sq. -70L60, 63”
619a134-4	Hx^{v}7	Sq. -60L60, 63”
619a2	Hx^{v}7	Surface

Plate 24. Oval Blade Types.

Catalog No.	Site No.	Location
Row A, Small Oval Blades associated with Halifax projectile points.		
619a134-6	Hx^{v}7	Sq. -60L60, 63”
619a151	Hx^{v}7	Sq. -70L60, 53”
619a168	Hx^{v}7	Sq. -10R50, 43”
619a147	Hx^{v}7	Sq. -7L60, 46–49”
Row B, Large Oval Blades associated with Savannah River projectile points.		
619a112	Hx^{v}7	Sq. 60Ll0, 37”
619a20	Hx^{v}7	After scraper

Plate 25. Stone Projectile Points, Drills, and Gorgets.

Catalog No.	Site No.	Location
Row A, Miscellaneous projectile points included in the “Other” category. Second from the right is the Pee Dee pentagonal type. The last point on the right is of chert, one of two found in the survey.		
619a336	Hx^{v}7	Sq. 45R25, 12–15”
619a268	Hx^{v}7	Sq. 35R105, Level 2
651a2	Np^{v}29	Surface
651a2	Np^{v}29	Surface
619a28	Hx^{v}7	After scraper
619a1396	Hx^{v}7	Sq. 40L15, Fea. 184
Row B, Chipped stone drills.		
619a844	Hx^{v}7	Sq. 35R145, Fea. 38
619a689	Hx^{v}7	Sq. 35R85, Fea. 2
619a703	Hx^{v}7	Sq. 35R85, Fea. 4
619a689	Hx^{v}7	Sq. -60L140, Fea. 95
Row C, Drilled stone gorget and pebble fragments.		
619al168	Hx^{v}7	Sq. -80L50, Fea. 116
619a981	Hx^{v}7	Sq. 35R225, Fea. 66
619a1270	Hx^{v}7	Sq. 35R235, Fea. 148
668a4	Np^{v}46	Surface
Row D, Drilled stone gorget and pebble fragments.		
679a4	Np^{v}56	Surface
620a5	Hx^{v}8	Surface
619a428	Hx^{v}7	Sq. 53R10, 20”

Plate 30. Weights and Fragments.

Catalog No.	Site No.	Location
Row A, Grooved and pitted boatstone atlatl weights and fragments.		
619a33	Hx^{v}7	After scraper
619a837	Hx^{v}7	Sq. 35R145, Fea. 36
619a704	Hx^{v}7	Sq. 35R85, Fea. 4
Row B, Grooved and pitted boatstone atlatl weights and fragments.		
619a1118	Hx^{v}7	Sq. 0L150, Fea. 105
619a245	Hx^{v}7	Sq. 35R85, 9–19”
619a725	Hx^{v}7	Sq. 35R95, Fea. 8
Row C, Pecked atlatl fragment.		
619a34	Hx^{v}7	After scraper
Row D, Steatite gorget or net sinker.		
619a552	Hx^{v}7	Sq. -75R100, 12–16”

Plate 36. Clay Pipes.

	Catalog No.	Site No.	Location
Row A, Trade pipe stems and bowl fragments.			
(upper)	630a4	Np^{v}8	Surface
(upper)	619&45	Hx^{v}7	Bank at 60R5
(lower)	641a3	Np^{v}19	Surface
(lower)	630a4	Np^{v}8	Surface
Row B, Nineteenth-century pipe stem fragments.			
	638a3	Np^{v}16	Surface
	666a4	Np^{v}44	Surface
	619a3	Hx^{v}7	Surface
Row C, Clay pipes of Indian manufacture.			
	619a1267	Hx^{v}7	Sq. 35R235, Fea. 148
	619a1267	Hx^{v}7	Sq. 35R235, Fea. 148
	619a1267	Hx^{v}7	Sq. 35R235, Fea. 148
	619a1267	Hx^{v}7	Sq. 35R235, Fea. 148
Row D, Clay pipes of Indian manufacture.			
	619a27	Hx^{v}7	After scraper
	619a27	Hx^{v}7	After scraper
Row E, Clay pipes of Indian manufacture.			
(upper)	619a559	Hx^{v}7	Sq. -75R150, 0–8”
(lower)	619a547	Hx^{v}7	Sq. -75R100, 8–12”
Row F, Clay pipes of Indian manufacture.			
(upper)	619a369	Hx^{v}7	Sq. 50R5, 0–12”
(lower)	620a63	Hx^{v}8	Sq. 25R30, 0–12”
Row G & H, Clay pipes of Indian manufacture.			
	619a409	Hx^{v}7	Sq. 53R10, 12–16”
(Row H)	619a1242	Hx^{v}7	Sq. 25R440, Fea. 138

Plate 37. Bone Artifacts.

	Catalog No.	Site No.	Location
Row A, Worked antler and bone fragments.			
	619a1075	Hx^{v}7	Sq. -60L140, Fea. 95
Row B, Worked antler and bone fragments.			
	623a3	Np^{v}2	Surface
Row C, Worked antler and bone fragments.			
	620a45	Hx^{v}8	Sq. 25, 6–12”
Row D, Bone with small worked graving tip.			
	619a1333	Hx^{v}7	Sq. -85R50, Fea. 161
Row E, Antler celt with sharp cutting edge.			
	623a3	Np^{v}2	Profile trench

Plate 38. Bone Awls, Fishhooks, and Worked Antler.

	Catalog No.	Site No.	Location
Row A, Bone needles.			
	619a890	Hx^{v}7	Sq. 35R175, Fea. 48
	619a725	Hx^{v}7	Sq. 35R95, Fea. 8
Row B, Bone awls (at left is the ulna of a coon [*Procyon lotor*])			
	619a1379	Hx^{v}7	Sq. 0L20, Fea. 180
	619a1439	Hx^{v}7	Sq. -10L10, Fea. 195
	619a1379	Hx^{v}7	Sq. 0L20, Fea. 180
	619a1379	Hx^{v}7	Sq. 0L20, Fea. 180
	619a1074	Hx^{v}7	Sq. -60L140, Fea. 95
	619a1170	Hx^{v}7	Sq. -80L50, Fea. 116
	619a914	Hx^{v}7	Sq. 35R185, Fea. 53

Plate 38 (continued).

	Catalog No.	Site No.	Location
Row C, Small bone awls.			
	619a817	Hx^{v}7	Sq. 35R135, Fea. 29
	619a737	Hx^{v}7	Sq. 35R95, Fea. 9
	619a1439	Hx^{v}7	Sq. -10L10, Fea. 195
	619a1201	Hx^{v}7	Sq. -25R230, Fea. 124
	619a1439	Hx^{v}7	Sq. -10L10, Fea. 195
	619a1201	Hx^{v}7	Sq. -25R230, Fea. 124
	623a11	Np^{v}2	Sq. 1, 0–6”
Row D, Fishhook blank (left) and completed fishhook (right).			
	619a736	Hx^{v}7	Sq. 35R95, Fea. 9
	620a34	Hx^{v}8	Sq. 0, 12–18”
Row E, Worked bird bone projectile points.			
	619a1438	Hx^{v}7	Sq. -10L10, Fea. 195
	623a10	Np^{v}2	Sq. 1, 0–6”
Row F, Worked antler tips.			
	620a99	Hx^{v}8	Sq. 60R30, Fea. 1
	619a1075	Hx^{v}7	Sq. -60L140, Fea. 95

Plate 40. Shell, Daub, Ochre, and Ethno-Botanical Objects.

	Catalog No.	Site No.	Location
Row A, Mussel and snail shells found in large quantities on Indian sites and in refuse pits.			
(left)	623m31	Np^{v}2	Sq. 1, Fea. 1
(center)	619m1125	Hx^{v}7	Sq. 0L50, Fea. 105
(right)	620m27	Hx^{v}8	Sq. 0, 0–6”
Row B, Fired daub fragments indicating presence of plastered walls.			
(upper lt.)	619m1124	Hx^{v}7	Sq: 0L150, Fea. 105
(upper rt.)	619m1189	Hx^{v}7	Sq -25R220, Fea. 121
(lower)	619m1100	Hx^{v}7	Sq. -70L140, Fea. 102
(lower)	619m1124	Hx^{v}7	Sq. 0L150, Fea. 105
(lower)	619m896	Hx^{v}7	Sq. 35R175, Fea. 48
Row C, Fired dirt dauber nests indicating the presence of houses.			
	619m1273	Hx^{v}7	Sq. 35R235, Fea. 148
Row D, Charred hickory nut shells.			
	619eb825	Hx^{v}7	Sq. 35R135, Fea. 32
Row E, Charred rachis of small pine cones.			
	619eb1222	Hx^{v}7	Sq. -25R240, Fea. 130
Row F, Charred hickory nut meat.			
	619eb475	Hx^{v}7	Sq. 55R5, 12–18”
Row G, Worked lump of red ochre.			
	619m135	Hx^{v}7	Sq. -60L60, 63”

APPENDIX E

Sydne B. Marshall, currently Supervisor of Cultural Resources with Tetra Tech FW, Inc., presents a summary of a recent survey of the Roanoke Rapids and Gaston Hydropower project area where the archaeology on the Roanoke project, presented in this volume, took place over 50 years ago.

(Stanley South, 10/25/2004)

FROM THE SPIRIT OF EXPLORATION TO THE BUSINESS OF ARCHAEOLOGY: TWO SURVEYS OF THE ROANOKE RAPIDS AND GASTON HYDROPOWER PROJECT

by
Sydne B. Marshall

Abstract

In the 1950s, Professor Joffre Coe and graduate students from the University of North Carolina, Chapel Hill (including Stanley South and Lewis Binford) conducted a reconnaissance of the Roanoke River Valley in the area where Virginia Power planned to build two dams and create two reservoirs. Their survey resulted in the discovery of several major stratified sites that are today underwater. In the 1990s, Foster Wheeler Environmental Corporation, supported by New South Associates and John Milner Associates, conducted surveys of the project area in conjunction with Virginia Power's re-licensing of the project by the Federal Energy Regulatory Commission (FERC). This paper compares the ways that archaeological investigation has been conducted and cultural resources managed in the almost 50-year period separating these studies.

Let me set the scene for you. The project area that I am going to talk about is located in southern Virginia and northern North Carolina. The eastern edge of the project is located in the vicinity of the fall line dividing the Coastal Plain and the Piedmont physiographic regions, and it extends west into the Virginia and North Carolina Piedmont. The project extends to within Brunswick and Mecklenburg counties in Virginia, and Northampton, Halifax, and Warren counties in North Carolina. This discussion focuses on the portion of the Roanoke River valley that was flooded to form Roanoke Rapids Lake and Lake Gaston. There have been two archaeological projects looking at much of the same area over the past 50 years, and I am going to look at how the political environment has influenced the way that both projects conducted their business in the same area. For the sake of brevity, I will narrow the focus a bit to Roanoke Rapids Lake (Figure 1).

In 1953, a U.S. Supreme Court decision authorized the Virginia Electric and Power Company to begin construction of a $34,000,000 dam across the Roanoke River just above the town of Roanoke Rapids, North Carolina. When completed, the dam would flood a 4,400-acre area, nine miles long with a 47-mile shoreline. Flooding of the area was scheduled to occur on June 1, 1955.

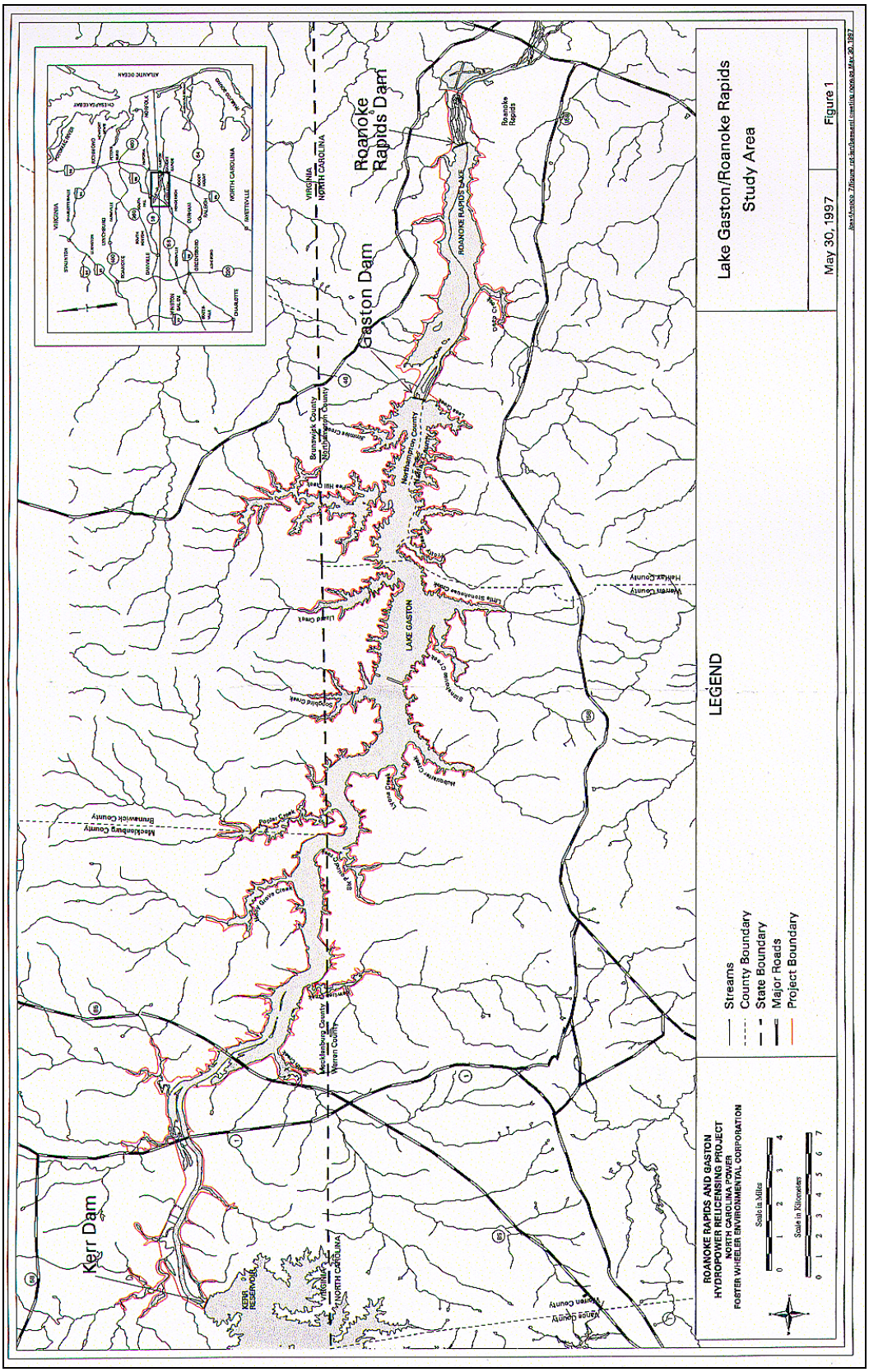


Figure 1. The Lake Gaston-Roanoke Rapids Study Area.

Now we need to put this in perspective with regard to the archaeological practice and regulatory requirements of the time. Archaeological survey in anticipation of dam and reservoir construction had been a well established practice that became known as *salvage archaeology*. The Tennessee Valley Authority (TVA), a federal agency, had provided funds to support extensive investigations prior to several dam construction projects and even employed numerous individuals during President Franklin Roosevelt's 1930s Works Project Administration (WPA) era. But in 1953, there were still no requirements for surveys to be conducted prior to construction of dams and reservoirs. In fact, salvage money was scarce during this period, and the political environment was such that relations between the Department of the Interior and private power developers were not good at that time. In addition, the archaeological community generally had no active interest in the archaeology of the Roanoke River Valley. The result was that no one was investigating anything in the Roanoke Rapids area while Virginia Power was almost one year ahead of schedule on construction of the dam.

Under the direction of Joffre Coe, the University of North Carolina took the initiative to approach VEPCO to conduct investigations prior to flooding of the basin. A note in VEPCO's files documents the arrangements for this salvage operation. In a letter dated April 22, 1955, Coe wrote to Mr. Walter Dolbeare, VP at VEPCO, to thank him for their contribution of $1,200 to UNC toward the cost of the archaeological survey of the Roanoke Rapids basin. The university gave an additional $2400 to support eight weeks in the field and 12 weeks in the laboratory. And thus, Joffre Coe sent two graduate students and an assistant into the field to conduct a salvage operation ahead of VEPCO's schedule to create Roanoke Rapids Lake.

Coe's senior graduate student, Stanley South, developed the budget and plan for tackling the survey (Figure 2). He brought with him his wife Jewell and a fellow graduate student, Lewis Binford, who had just entered the program at UNC. Since school was still in session and the crew was only available on weekends, fieldwork started slowly. But by the time the semester was completed, the three lived, ate, and breathed archaeology—tenting at their campsite out in the field.

VEPCO was well on their way to completing this project (Figure 3). The guiding approach for the UNC explorers was to focus on lands that had been agricultural or had been recently cleared by VEPCO's pre-construction crew. Within four to six weeks, the group had identified 74 prehistoric archaeological sites and had decided to focus on two of the sites they considered to be outstanding—the Thelma site and the Gaston site. We'll look briefly at Gaston in this discussion.

Much of what I will tell you came from my recent telephone conversation with Stanley South. Dr. South has a marvelous memory and related a number of interesting stories about working on this project. He told me what it was like to work at the Gaston site. Of course, Joffre Coe published information about this project in his 1964 monograph, *The Formative Cultures of the Carolina Piedmont*, which was partially based on Dr. South's Master's thesis.

The Gaston site was located on the south bank of the Roanoke River, about six miles above the town of Roanoke Rapids, North Carolina. Stan South and his crew were assisted by a local resident volunteer.

Figure 2. Stan South, Jewell South, and Lewis Binford at their camp in the Roanoke Basin.

Figure 3. Lewis Binford during the site survey in the cleared Roanoke Rapids basin.

On one of his visits to the project, Coe walked the area of the Gaston site with South. Now, Joffre Coe apparently was a man of few words. He listened to what South was telling him about the numerous Woodland features they were finding. The UNC investigators were focused on excavating features and had spent many an evening in their tent discussing why they kept on finding Savannah River points while digging so many of the Woodland pits. Coe listened to this, looked around, and sized up the situation. Before leaving, he directed South to excavate a trench from the terrace to the depth of the water table. South described one early morning soon thereafter when he awoke at about 4:00 a.m. with an inspiration. It excited everyone so much that they immediately got up, lit a couple of Coleman lanterns, and began the day's fieldwork.

Of course, what they confirmed with their fieldwork was apparently what Coe had been thinking—that the Gaston site was in fact stratified with many deeper layers of cultural materials underlying the upper Woodland strata (Figure 4). Dr. South reminded me in our discussion that this was only about the third major stratified site that was known in the country at that time. Of course, this was a time when radiocarbon dating was just coming into use and when the general perspective of prehistory in the U.S. was that Native Americans (Indians then) could be traced back only about 2,000 years.

When South and company confirmed that Gaston was deeply stratified, they attempted to inform Coe of their discovery. Stan was able to reach Mrs. Coe who, before South could say anything, asked him how the investigation was going at the stratified site. Apparently, when Coe returned from his previous field visit he had informed his wife that the field group had found a stratified site.

Dr. South talked to me about one of the innovations that was used in the field during this project. Time was obviously not on the side of the archaeologists during this project. Stone and Webster, an engineering firm doing work for VEPCO in the area, made available to the team a mechanical grader (Figure 5). This was one of the first times such equipment was put to use on an archaeological site.

In addition, the archaeological investigations had been enticing the public with a good bit of newspaper publicity. Visitors to the project were frequent (Figure 6). Dr. South told me that a local funeral director was so moved by their being compelled to work in the hot sun while trying carefully to excavate several human burials that he loaned the crew a canopy to provide shade. He noted with some amusement that when the locals came to watch them excavate, they would speak in hushed whispering tones. He didn't know whether this was attributable more to the intrinsic nature of working on human remains or to the reverential associations with the awning, that had the name of the funeral parlor on it.

Somewhere in the files, there is a note from VEPCO asking Joffre Coe if he needed to extend the field time. VEPCO would have altered their schedule for flooding the area. Coe apparently did not accept the offer, not wishing to repay VEPCO's generosity by throwing them off-schedule.

Stan South and the crew worked at the Gaston site until the very last possible moment. They asked the volunteer to stand at a post near their access road to report to them when he saw water coming. When it was reported that the flood was getting closer, the crew packed up the tent and equipment and drove out through six inches of rapidly rising water.

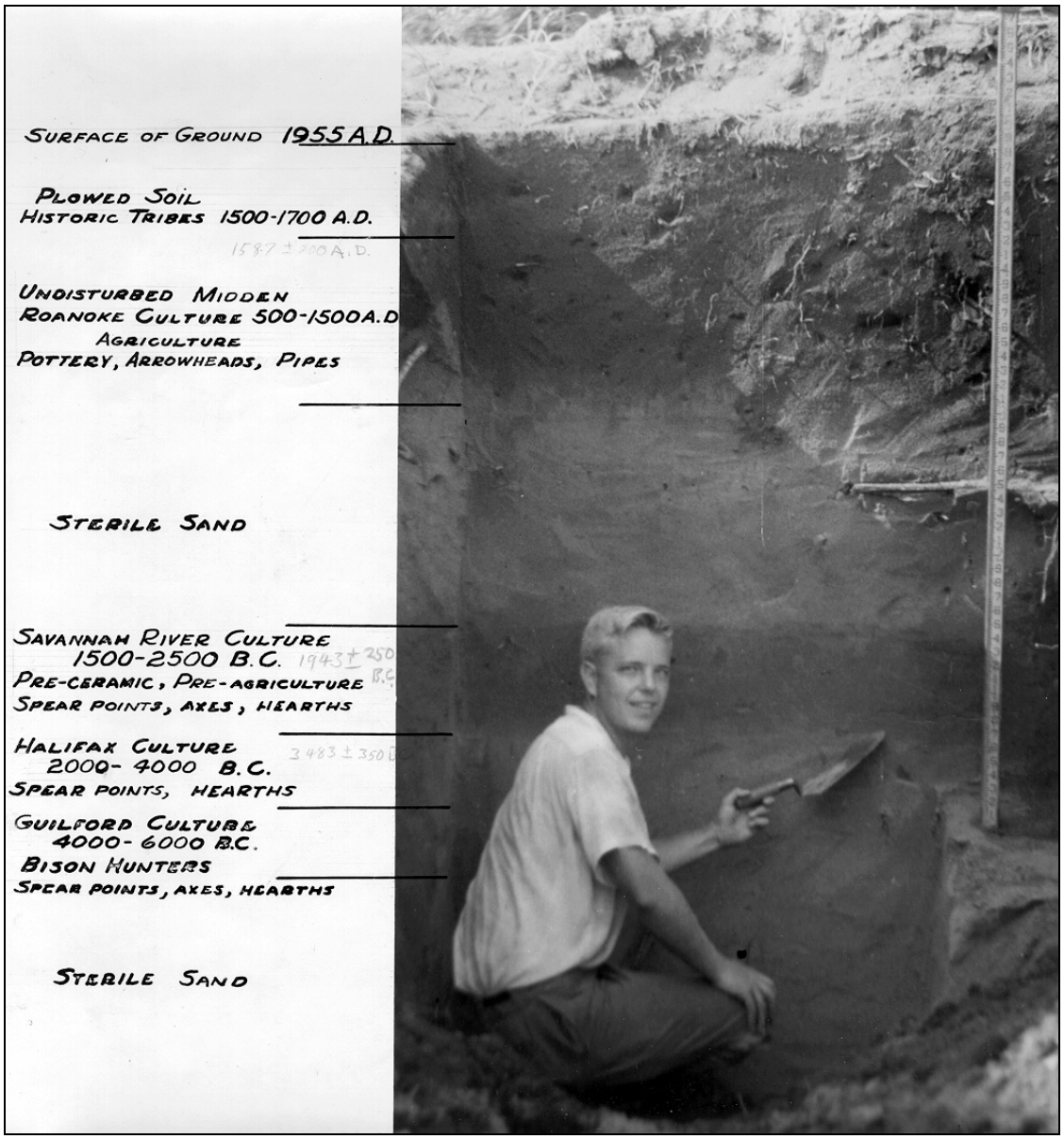


Figure 4. Stanley South pointing to the Savannah River occupation level at the Gaston site. Lewis Binford's detailed lettering indicates the various cultural levels represented in the strata.

Of course, much of the Gaston site remains, submerged under Roanoke Rapids Lake (Figure 7). In 1985, VEPCO requested assistance from the North Carolina State Historic Preservation Office (SHPO) following reports from local residents that human skeletal material was eroding from the site. Mark Mathis described his experiences working at the Gaston site. He came to the site during a drawdown period, almost 30 years to the day from Stan South's initial investigations. Using photocopies of South's field maps and notes, Mr. Mathis found the original site datum etched into a nearby rock outcrop along the present-day shoreline. With the help of two Virginia Power employees, Mr. Mathis recovered the human skeletal remains that were eroding.

Figure 5. Motor graders at work on the Gaston site opening areas to expose the features.

Figure 6. Visitors to the Gaston site were fascinated to see the excavation underway. They watched intently as each archaeologist took a bite from the sandwiches Jewell South had prepared for lunch.

Figure 7. A view today of the shoreline of Roanoke Rapids Lake.

More "innovations" may be associated with this site. Over the years of wave action, drawdown, and recreational boating, the former upper layers of the site had been water-separated, leaving a layer of sand (minus silts) as the layer under the water. Walking barefoot in knee-deep water during this salvage operation, Mr. Mathis noted that if he allowed his feet to sink into the sand, he could feel a layer of ceramic sherds. Using a Braille-type system of observation, he could tell that the sherds probably were once held within the sandy silt layer that had been water-washed.

On January 31, 2001, the Federal Energy Regulatory Commission (FERC) license for the Roanoke Rapids and Gaston Hydropower Project expired. This brings the discussion to my present-day involvement with this area. Under contract to North Carolina Power (which includes Virginia Power and the former VEPCO), Foster Wheeler Environmental Corporation (my employer) assisted North Carolina Power, who in turn assisted the FERC with its responsibilities to comply with the requirements of Section 106 of the National Historic Preservation Act (NHPA). In addition, Foster Wheeler Environmental assisted with a host of other regulatory requirements covering issues such as wetlands, fish, water, etc. In anticipation of these requirements, North Carolina Power submitted a new license application to the FERC that includes the results of numerous studies to evaluate the effects of the project on environmental resources, including cultural resources.

Beginning about 1997, Foster Wheeler Environmental, supported by New South Associates and John Milner Associates, conducted a series of investigations to determine the environmental effects of the re-licensing of the project and to develop a cultural resources management plan that would be acceptable to the FERC and both the North Carolina and Virginia SHPOs (Figure 8).

Figure 8. Investigation underway to determine the environmental effects of the re-licensing of the project and to develop a cultural resources management plan.

Clearly, the parameters of the 1990s project area had changed drastically from those of the 1950s project area (Figure 9). In the 1990s, Virginia Power owned only a small buffer around the perimeter of the two lakes—an approximately 50-foot area parallel to the high-water shorelines. I've talked about how Virginia Power has acted positively in its role as steward over the cultural resources within the project area. In the 1950s they contributed money and access at a time when they were not required to do so. In the 1980s they requested assistance from the North Carolina SHPO in handling a cultural resource crisis. In the 1990s, North Carolina Power continued to act in good faith. They were extremely cooperative in working with the archaeology program, assisting in gaining access to survey areas and in becoming educated about the critical issues that would become incorporated into the management plan. Ultimately, the means of addressing these issues became part of a legal agreement among the FERC, the North Carolina and Virginia SHPOs, and North Carolina Power.

Background literature review of the project area indicated that by the 1990s, more than 300 archaeological sites had been previously recorded in the North Carolina and Virginia portions of the project. Many of these sites were submerged by the Roanoke Rapids and Gaston lakes. Recent field investigations for the re-licensing effort focused on several issues:

1. Survey of shoreline areas undergoing active erosion where sites had been previously recorded;

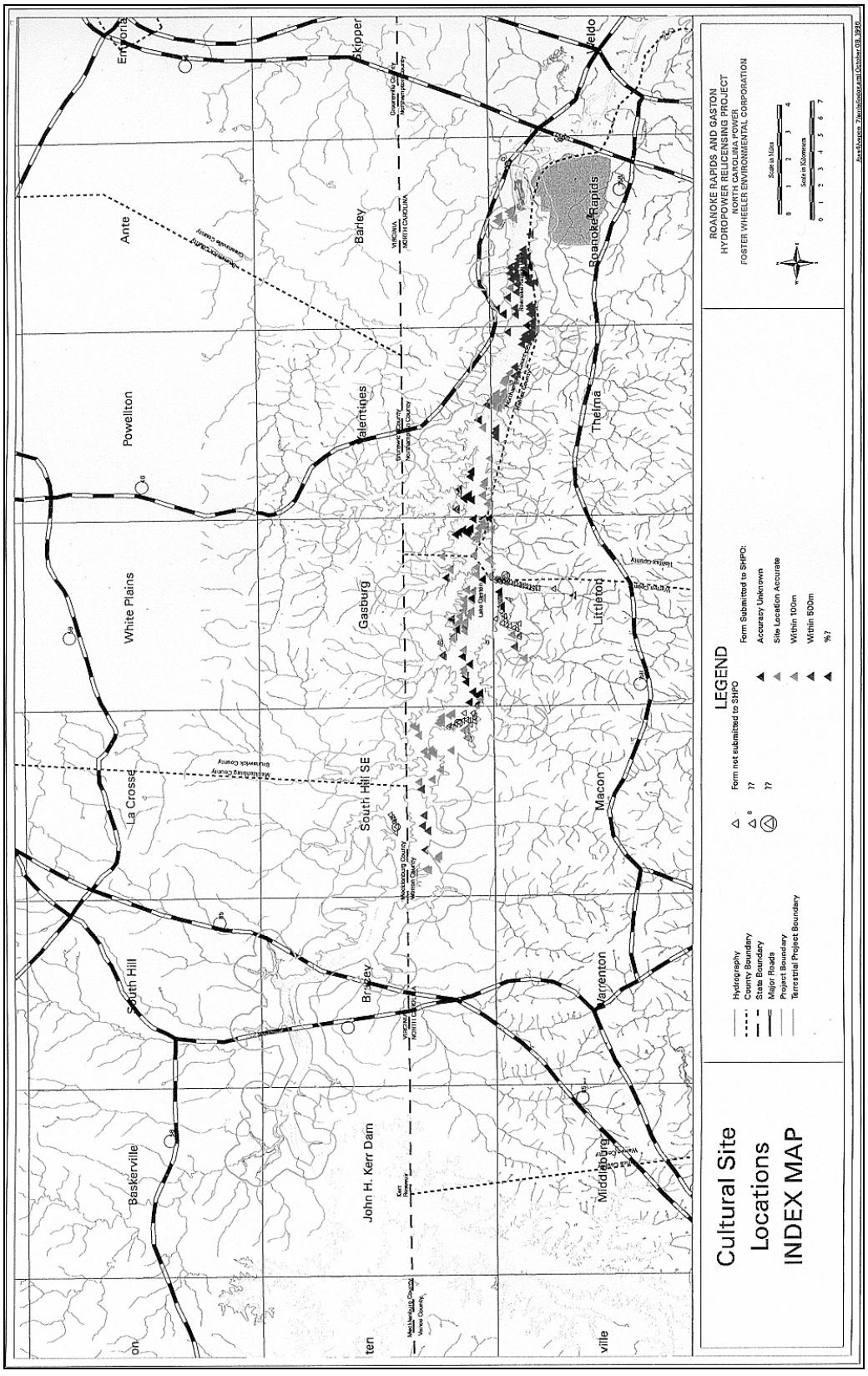


Figure 9. The index map for the cultural site locations in the Roanoke Rapids and Gaston Hydropower Re-licensing Project.

Figure 10. Only a small amount of buffer property is owned by North Carolina Power around the periphery of the two lakes.

2. Survey of shoreline areas undergoing active erosion where modeling predicted there was a high potential to contain archaeological sites; and
3. More intensive examination of several sites noted as having the potential to meet the criteria for National Register of Historic Places eligibility.

The main focus of cultural resources management activity now is in developing a management plan that will provide a basis for North Carolina Power to continue to maintain its record of positive stewardship of the many cultural resources within its property. This is challenging for North Carolina Power because a large number of sites are located underwater, only a small amount of buffer property is owned around the periphery of the two lakes (Figure 10), and a great deal of private development has occurred around the shoreline. Among the methods incorporated in the management

Figure 11. It is obvious that the mode of management of cultural resources has changed since 1955, when Stan and Jewell South and Lewis Binford surveyed the area now beneath the waters of the lakes.

plan are the creation of land conservation areas that will be protected from future development along the shoreline. These areas will protect some of the potentially significant cultural resources recently inventoried, in addition to protecting high quality wetlands, birding areas, and fish habitat. Areas in the lakes that contain known significant sites, such as the Gaston site, will continue to be monitored and protected as much as possible. Recent observations of the Gaston site indicate that it is stable and apparently not actively eroding. This is attributable in part to the establishment of wetland vegetation over the top of the site that has stabilized soils and minimized erosion.

It is obvious that the mode of management of cultural resources has changed since 1955 (Figure 11). Legislation and regulatory requirements have brought archaeologists into the planning process far earlier and with much greater influence on development outcomes. And of course, field technology has also been enhanced by such innovations as computerization and satellite GIS systems. But many of the basics remain the same today as they will, I think, in the future. While we often use graders, hand excavation has not been completely outmoded, and archaeologists always get excited when they find resources. And, a site such as Gaston would get most of us up at 4:00 a.m. and into the field to be able to answer a perplexing question (Figure 12).

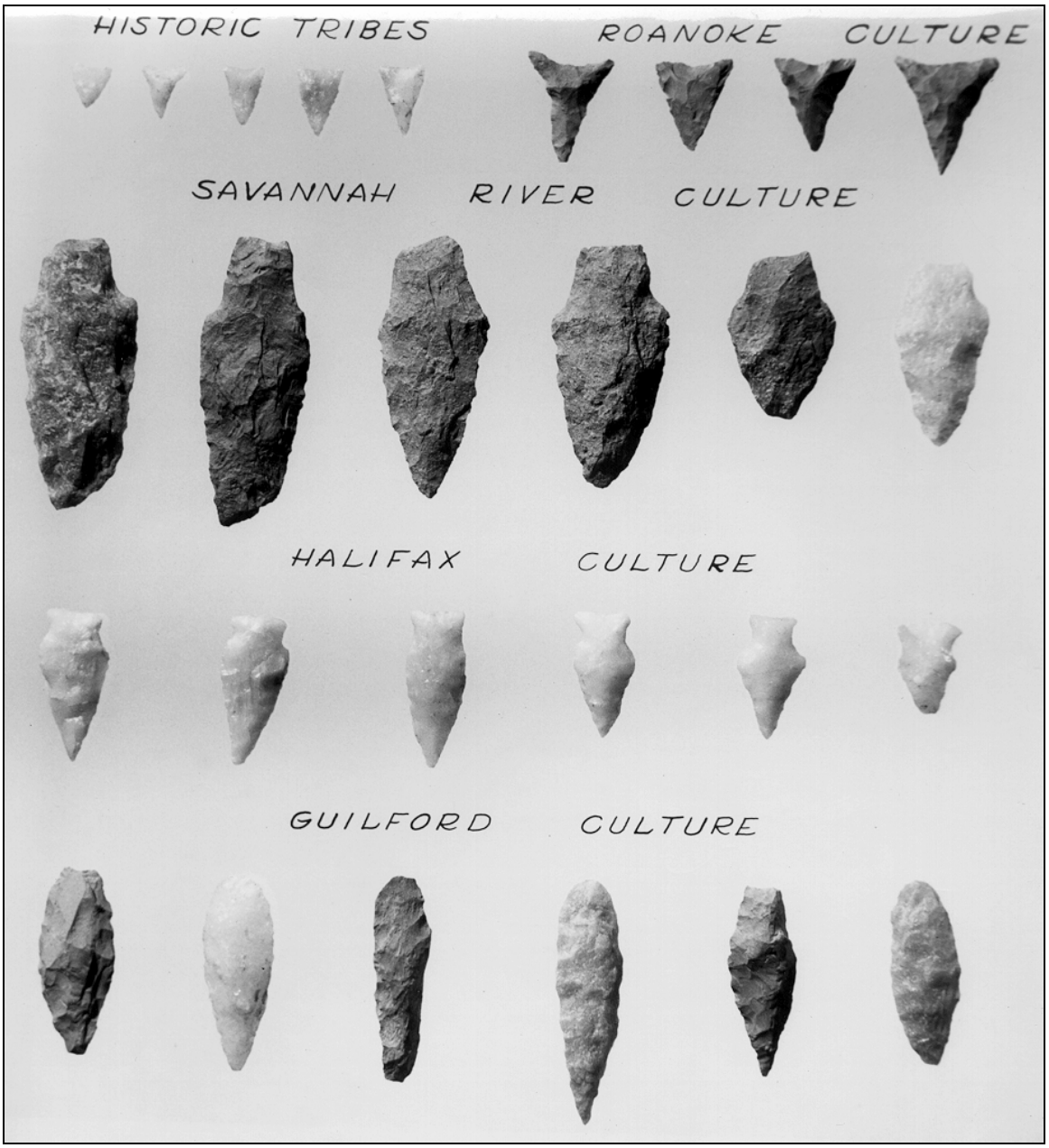


Figure 12. The evolutionary culture sequence represented by projectile points recovered during the 1955 project, identified by Lewis Binford's signature lettering.

NOTES

Foreword

1. "Facts About the Roanoke Rapids Dam," Virginia Electric and Power Company (Richmond, [1955]).

2. Correspondence between Joffre L. Coe and VEPCO. On file, Research Laboratories of Archaeology, University of North Carolina (Chapel Hill, 1955).

3. Narrative Reports of the Roanoke River Basin Archaeological Survey. On file, Research Laboratories of Archaeology, University of North Carolina (Chapel Hill, 1955).

4. *Ibid*.

5. Joffre Coe, in *The Formative Cultures of the Carolina Piedmont* (1964), called the "Clement" focus (now phase) "Clements," and this spelling has been used by later prehistorians.

6. H. Trawick Ward and R. P. Stephen Davis, Jr., *Time Before History: The Archaeology of North Carolina*, University of North Carolina Press (Chapel Hill, 1999), pp. 24–25, 87–95.

7. Roy S. Dickens, Jr., H. Trawick Ward, and R. P. Stephen Davis, Jr., *The Siouan Project: Seasons I and II*, Monograph No. 1, Research Laboratories of Anthropology, University of North Carolina (Chapel Hill, 1987); H. Trawick Ward and R. P. Stephen Davis, Jr., *Indian Communities on the North Carolina Piedmont, A.D. 1000–1700*, Monograph No. 2, Research Laboratories of Anthropology, University of North Carolina (Chapel Hill, 1993).

8. H. Trawick Ward and R. P. Stephen Davis, Jr., *Indian Communities on the North Carolina Piedmont, A.D. 1000–1700*, Monograph No. 2, Research Laboratories of Anthropology, University of North Carolina (Chapel Hill, 1993).

9. David S. Phelps, "Archaeology of the North Carolina Coast and Coastal Plain: Problems and Hypothesis." In *The Prehistory of North Carolina*, North Carolina Division of Archives and History (Raleigh,1983), pp. 1–52.

10. H. Trawick Ward and R. P. Stephen Davis, Jr., *Time Before History: The Archaeology of North Carolina*, University of North Carolina Press (Chapel Hill, 1999), pp. 87–95.

11. *Ibid*, p. 225. David Phelps considers the Cashie phase (AD 800–1600) to be the material manifestation of Tuscarora and related Iroquoian peoples who lived in the interior Coastal Plain and southeastern Virginia.

12. Joffre L. Coe, *The Formative Cultures of the Carolina Piedmont*, Transactions of the American Philosophical Society, vol. 54, part 5 (new series) (Philadelphia, 1964), p. 11.

Chapter 1

1. Joffre L. Coe, "The Cultural Sequence of the Carolina Piedmont," *Archaeology of Eastern United States*, James B. Griffin (ed.) (Chicago, 1952), pp. 301–311.

2. Clifford Evans, "A Ceramic Study of Virginia Archeology," *Bureau of American Ethnology, Bulletin* 160 (Washington, 1955).

3. Joffre L. Coe, personal communication.

4. Leslie A. White, "Diffusion vs. Evolution: An Anti-Evolutionist Fallacy," *American Anthropologist*, Vol. 47, (1945), p. 230.

5. A discussion of the concept of types is found in Alex Krieger, "The Typological Concept," *American Antiquity*, Vol. 9 (1944), pp. 271–288.

6. Leslie A. White, "The Individual and the Culture Process," *Centennial*, American Association for the Advancement of Science (1948), p. 80.

7. James A. Ford, "Measurements of Some Prehistoric Design Developments in the Southeastern States," *Anthropological Papers*, American Museum of Natural History, Vol. 44 (1952), p. 319.

8. Stanley South, "Evolutionary Theory in Archaeology," *Southern Indian Studies*, Vol. 7 (Chapel Hill, 1955), pp. 10–32.

9. J. C. Harrington, "Dating Stem Fragments of Seventeenth and Eighteenth Century Clay Tobacco Pipes," *Quarterly Bulletin*, Archeological Society of Virginia, Vol. 9(1) (September, 1954), unpaged.

10. Herbert Paschal, "The Tuscarora Indians in North Carolina," (Master's thesis, Sociology Library, University of North Carolina), p. 23.

11. Clarence W. Alvord and Lee Bidgood, "The Discovery of New Britaine," *The First Exploration of the Trans-Allegheny Region by the Virginians, 1650–1674* (Cleveland, 1912).

12. Joffre L. Coe, personal interview.

13. Lewis Binford, personal interview.

Chapter 3

1. For discussion of pottery type criteria, see Harold Sellers Colton and Lyndon Lane Hargrave, *Handbook of Northern Arizona Pottery Wares*, Museum of Northern Arizona, Bulletin No. 11, Flagstaff, p. 1–5.

2. Tests conducted by the Research Laboratory of Anthropology at the University of North Carolina, cited by Ernest Lewis in a thesis, "The Sara Indians, 1540–1768," (Chapel Hill, 1951), p. 218. The correlation between the two methods was found to be .967.

3. This method was used by Clifford Evans in "A Ceramic Study of Virginia Archeology," *Bureau of American Ethnology* 160 (Washington, 1955).

4. Definition used by the Research Laboratory of Anthropology at the University of North Carolina and stated by William H. Sears and James B. Griffin in "Fiber-Tempered Pottery of the Southeast," *Prehistoric Pottery of the Eastern United States*, Museum of Anthropology, University of Michigan (Ann Arbor, 1950), unpaged.

5. An excellent study of analysis criteria is by Anna O. Shepherd in *Ceramics for the Archaeologist*, Carnegie Institution of Washington, Publication 609 (Washington, 1956).

6. Clifford Evans, "A Ceramic Study of Virginia Archeology," *Bureau of American Ethnology Bulletin* 160 (Washington, 1955), p. 37.

7. Joffre L. Coe, personal interview.

8. Joffre L. Coe and Ernest Lewis, "Certain Eastern Siouan Pottery Types," *Prehistoric Pottery of the Eastern United States,* James B. Griffin, (ed.), Museum of Anthropology, University of Michigan (Ann Arbor, 1952), not paged.

9. Joffre L. Coe, *ibid*.

10. *Ibid.*

11. Clifford Evans, "A Ceramic Study of Virginia Archeology," *Bureau of American Ethnology Bulletin* 160 (Washington, 1955), p. 69.

12. *Ibid*., p. 134 and table p. 156. Examination of sherds on file at the Research Laboratory of Anthropology at the University of North Carolina.

13. Joffre L. Coe, personal interview.

14. *Ibid*., Evans, p. 62–63.

15. Estimate made in January, 1956, for use in display at State Museum, Raleigh, NC, on Indian Cultures in Roanoke Rapids Basin.

16. Joffre L. Coe, personal interview, and described by Clifford Evans in "A Ceramic Study of Virginia Archeology," *Bureau of American Ethnology Bulletin* 160 (Washington, 1955), p. 49.

17. Joffre L. Coe, personal communication.

18. Joffre L. Coe and Ernest Lewis, "Certain Eastern Siouan Pottery Types," *Prehistoric Pottery of the Eastern United States,* James B. Griffin, (ed.), Museum of Anthropology, University of Michigan (Ann Arbor, 1952), not paged.

19. Joffre L. Coe, "The Cultural Sequence of the Carolina Piedmont," *Archaeology of Eastern United States*, James B. Griffin (ed.), (Chicago, 1952), p. 310.

20. Evans, *op. cit.*, p. 44.

21. *Ibid*., p. 94.

22. Margaret C. Blaker, "Roanoke Simple Stamped," *American Antiquity*, Vol. 17(3), (January, 1952), p. 257.

23. Evans, *op. cit.*, p. 47.

24. Blaker, *.op. cit.*, p. 258.

25. William H. Claflin, Jr., "The Stalling's Island Mound, Columbia County, Georgia," Papers of the Peabody Museum of American Archaeology and Ethnology, Vol. 14(1) (Cambridge, 1931), and Charles H. Fairbanks, "The Taxonomic Position of Stalling's Island Georgia," *American Antiquity*, Vol. 11(4) (Menasha, 1942), pp. 223–231, and its North Carolina context by Joffre L. Coe, *op. cit*., p. 305.
26. Coe, *op. cit.*, p. 304.
27. C. G. Holland in "An Analysis of Projectile Points and Large Blades," *Bureau of American Ethnology Bulletin* 160 (Washington, 1955), p. 166, and called by him "Small Triangular."
28. *Ibid*., p. 166.
29. Joffre L. Coe, "The Cultural Sequence of the Carolina Piedmont," *Archaeology of Eastern United States*, James B. Griffin (ed.) (Chicago, 1952), p. 311.
30. Joffre L. Coe, personal communication.
31. Holland, *op. cit*., p. 167.
32. Coe, *op. cit*., p. 304.
33. Joffre L. Coe, personal communication.
34. Claflin, Fairbanks, and Coe, *op. cit*.
35. Holland, *op. cit*., p. 170.
36. *Ibid*., p. 169.
37. Joffre L. Coe, "The Cultural Sequence of the Carolina Piedmont," *Archaeology of Eastern United States*, James B. Griffin (ed.) (Chicago, 1952), p. 304.
38. Joffre L. Coe, personal communication.
39. Joffre L. Coe, personal communication.
40. Joffre L. Coe, "The Cultural Sequence of the Carolina Piedmont," *op. cit*., p. 308.
41. *Ibid*., p. 304.
42. Joffre L. Coe, personal communication.
43. William S. Webb, "Indian Knoll, Site Oh 2, Ohio County, Kentucky," The University of Kentucky Reports in Anthropology and Archaeology, Vol. 4, No. 3, Pt. 1, (Lexington, 1946). The atlatl, or the spear thrower, acted as an extension of the arm, allowing the spear to be thrown further than by hand.
44. Joffre L. Coe, News Letter of the Archaeological Society of North Carolina, No. 30 (Chapel Hill, April, 1955), pp. 6–7.
45. James B. Griffin, "Culture Periods in Eastern United Eastern United States Archaeology," *Archaeology of Eastern United States* (Chicago, 1952), p. 358.
46. Coe, "The Cultural Sequence of the Carolina Piedmont," *op. cit*., p. 308.
47. Griffin, *loc. cit.*
48. Coe, *op. cit.,* p. 307
49. Harrington, *1oc. cit.*
50. Dr. Edison Adams of the Botany Department at the University of North Carolina examined this material and identified the specimens.

Chapter 4

1. Phillip Philips, James A. Ford, and James B. Griffin, "Archaeological Survey in the Lower Mississippi Alluvial Valley, 1940–1947," *Papers of the Peabody Museum of Archaeology and Ethnology*, Vol. 25 (Cambridge, 1951).
2. *Ibid*., pp. 61–69, 219–236.
3. *lbid*., p. 223.
4. James A. Ford, *Measurements of Some Prehistoric Design Developments in the Southeastern States*, Anthropological Papers of the American Museum of Natural History (New York, 1952), pp. 328–331.
5. Estimate made in January 1956 for display at the State Museum in Raleigh, NC.

Chapter 5

1. Method used by the Research Laboratory of Anthropology at the University of North Carolina.
2. Marshall T. Newman, Appendix A.

Chapter 6

1. Lewis Binford, personal communication.
2. F. S. Barkalow, Appendix B.
3. Coe, 1938 Survey of Clarksville Area, personal communication.
4. Joffre L. Coe, "The Cultural Sequence of the Carolina Piedmont," *Archaeology of Eastern United States*, James B. Griffin (ed.) (Chicago, 1952), p. 305.
5. James B. Griffin, "Radiocarbon Dates for the Eastern United States," *Archaeology of Eastern United States* (Chicago, 1952), p. 368.
6. Since the above estimate of the age of the Savannah River level was made, the dates have been found to be 3,900 ± 250 years ago. A complete report of radiocarbon dates is presented in a later section.
7. Coe, *op. cit*., p. 304.
8. *Ibid*.
9. The radiocarbon dates have since been run and are included in the next section of this report. The dates for the Halifax level were found to be 4,280 ± 350 and 5,440 ± 350 years ago.
10. Joffre L. Coe, personal communication.
11. Joffre L. Coe, *ibid*., pp. 304–306.
12. C.G. Holland, "An Analysis of Projectile Points and Large Blades," *Bureau of American Ethnology, Bulletin* 160 (Washington, 1955).
13. Robert F. Heizer, "Long-Range Dating in Archaeology," *Anthropology Today*, A. L. Kroeber (ed.), The University of Chicago Press (Chicago, 1955), p. 14.
14. Coe and Lewis, *op. cit*.

Chapter 7

1. Joffre L. Coe, personal communication.

Chapter 8

1. James B. Griffin, "Culture Periods in Eastern United States Archaeology," *Archaeology of Eastern United States* (Chicago, 1952), p. 353.
2. Joseph R. Caldwell, "The Archaeology of Eastern Georgia and South Carolina," *op. cit*., p. 312.
3. T. M. N. Lewis, "A Suggested Basis for Paleo-Indian Chronology in Tennessee and the Eastern United States," *Southern Indian Studies*, Vol. 5 (Chapel Hill, 1954), p. 11.
4. Ben C. McCary, "A Paleo-Indian Workshop Site in Dinwiddie County, Virginia," *op. cit*., p. 9.
5. Douglas Byers, "Paleo-Indian in New England," *op. cit*., p. 5.
6. Joffre L. Coe, personal communication.
7. Griffin, *op. cit*., p. 353.
8. Joffre L. Coe, personal communication.
9. Joffre L. Coe, "The Cultural Sequence of the Carolina Piedmont," *Archaeology of Eastern United States*, James B. Griffin (ed.) (Chicago, 1952), p. 304.
10. *Ibid*.
11. Coe, *ibid*., p. 305.
12. Griffin, *op. cit*., p. 354.
13. Charles H. Fairbanks, "The Taxonomic Position of Stallings Island, Georgia," *American Antiquity*, Vol. 7(3) (1942), p. 223–231.
14. Coe, *loc. cit*.
15. Karl Schmitt, "Archaeological Chronology of the Middle Atlantic States," *Archaeology of Eastern United States*, James Griffin (ed.) (Chicago, 1952), p. 60.
16. Coe, *loc. cit*.
17. Griffin, *op. cit*., p. 356.
18. Caldwell, *op. cit*., p. 313.
19. John W. Griffin, "Prehistoric Florida: A Review," *op. cit*., p. 323.
20. Coe, personal communication.
21. James B. Griffin, *op. cit*., p. 356.
22. *Ibid*., p. 357.

23. Robert L. Stephenson, "Accokeek: A Middle Atlantic Seaboard Culture Sequence," (Unpublished doctorial thesis on file at University of North Carolina, Chapel Hill), p. 137.
24. Evans, *op. cit*., p. 79.
25. Stephenson, *op. cit*., p. 144.
26. Griffin, *op. cit*., p. 358.
27. Stephenson, *op. cit*., p. 145.
28. Joffre L. Coe, "The Cultural Sequence of the Carolina Piedmont," *op. cit*., pp. 309–311.
29. Joffre L. Coe, "Certain Eastern Siouan Pottery Types," *Prehistoric Pottery of the Eastern United States*, James B. Griffin (ed.), Museum of Anthropology, University of Michigan (Ann Arbor, 1952), unpaged.
30. Coe, *Archaeology of Eastern United States*, *op. cit*., p. 311.
31. Robert Wauchope, "The Evolution and Persistence of Ceramic Motifs in Northern Georgia," *American Antiquity*, Vol. 16(1) (1950), pp. 16–22.
32. Robert Wauchope, "The Ceramic Sequence in the Etowah Drainage, Northwest Georgia," *American Antiquity*, Vol. 13(3) (1948), pp. 201–209.
33. Coe, "Certain Eastern Siouan Pottery Types," *op. cit*., unpaged.
34. Evans, *op. cit*., p. 64.
35. William H. Sears, "Ceramic Development in the South Appalachian Province," *American Antiquity*, Vol. 10(2) (1952), p. 107.
36. Coe, "The Cultural Sequence of the Carolina Piedmont," *op. cit*., p. 308.
37. Stephenson, *op. cit*., pp. 192–216.
38. *Ibid*., p. 240.
39. Stephenson, *op. cit*., p. 384.
40. Evans*, op. cit*., p. 142.
41. Coe, personal communication.
42. Evans, *op. cit*., p. 112.
43. Coe, "The Cultural Sequence of the Carolina Piedmont," *op. cit*., p. 301.
44. Walter Taylor, "A Study of Archaeology," *Memoir No.* 69, American Anthropological Association, (Menasha, 1948).
45. G. P. Murdock, et al., "Outline of Cultural Materials," *Yale Anthropological Studies*, Vol. 2 (New Haven, 1945).
46. James A. Ford, "Measurements or Some Prehistoric Design Developments in the Southeastern States," *Anthropological Papers*, American Museum of Natural History, Vol. 44, Part 3, (New York, 1952).
47. James B. Griffin, *Archaeology of Eastern United States*, *op. cit*., pp. 353–356.
48. *lbid*., pp. 358–364.
49. For a discussion of the relationship between the growth of civilization and amount of energy harnessed per capita per year, see Leslie White, "Energy and the Development of Civilization," *Serving Through Science*, Radio Talk sponsored by United States Rubber Co. (New York, 1947).
50. Griffin, *op. cit*., pp. 358–361.

REFERENCES CITED

Alvord, Clarence W., and Lee Bidgood
1912 The Discovery of New Britaine. *The First Explorations of the Trans-Allegheny Region by the Virginians, 1650–1674*. Arthur H. Clark Co., Cleveland.

Blaker, Margaret C.
1952 Further Comments on Simple-Stamped Shell-Tempered Pottery. *American Antiquity* 17(3):257–258.

Byers, Douglas
1954 Paleo-Indian in New England. *Southern Indian Studies* 5. Chapel Hill.

Caldwell, Joseph R.
1952 The Archaeology of Eastern Georgia and South Carolina. In *Archaeology of the Eastern United States*, edited by James B. Griffin. University of Chicago Press, Chicago.

Claflin, William H., Jr.
1931 The Stalling's Island Mound, Columbia County, Georgia. *Papers of the Peabody Museum of American Archaeology and Ethnology* 14(1). Cambridge.

Coe, Joffre L.
1952 The Cultural Sequence of the Carolina Piedmont. In *Archaeology of Eastern United States*, edited by James B. Griffin, pp. 301–311. University of Chicago Press, Chicago.

1955 Time and the Indian Relic. *News Letter* 30. Archaeological Society of North Carolina, Chapel Hill.

Coe, Joffre L., and Ernest Lewis
1952 Certain Eastern Siouan Pottery Types. In *Prehistoric Pottery of the Eastern United States*, edited by James B. Griffin. Museum of Anthropology, University of Michigan, Ann Arbor.

Colton, Harold Sellers, and Lyndon Lane Hargrave
n.d. *Handbook of Northern Arizona Pottery Wares*. Museum of Northern Arizona Bulletin 11, Flagstaff.

Evans, Clifford
1955 *A Ceramic Study of Virginia Archeology*. Bureau of American Ethnology Bulletin 160, Washington.

Fairbanks, Charles H.
1942 The Taxonomic Position of Stalling's Island, Georgia. *American Antiquity* 7(3):223–231.

Ford, James A.
1952 Measurements of Some Prehistoric Design Developments in the Southeastern States. *Anthropological Papers* 44. American Museum of Natural History, New York.

Griffin, James B.
1952 Culture Periods in Eastern United States Archaeology. In *Archaeology of Eastern United States*, edited by James B. Griffin. University of Chicago Press, Chicago.

1952 Radiocarbon Dates for the Eastern United States. In *Archaeology of Eastern United States*, edited by James B. Griffin. University of Chicago Press, Chicago.

Griffin, John W.
1952 Prehistoric Florida: A Review. In *Archaeology of the Eastern United States*, edited by James B. Griffin. University of Chicago Press, Chicago.

Harrington, J. C.
1954 Dating Stem Fragments of Seventeenth and Eighteenth Century Clay Tobacco Pipes. *Quarterly Bulletin of the Archeological Society of Virginia* 9(1).

Heizer, Robert F.
1955 Long-Range Dating in Archaeology. In *Anthropology Today*, edited by A. L. Kroeber. University of Chicago Press, Chicago.

Holland, C. G.
1955 An Analysis of Projectile Points and Large Blades. *Bureau of American Ethnology Bulletin* 160. Washington.

Krieger, Alex
1944 The Typological Concept. *American Antiquity* 9(3):271–288.

Lewis, Ernest
1951 The Sara Indians, 1540–1768: An Ethno-Archaeological Study. Unpublished Master's thesis, Department of Sociology, University of North Carolina.

Lewis, T. M. N.
1954 A Suggested Basis for Paleo-Indian Chronology in Tennessee and the Eastern United States. *Southern Indian Studies* 5:11–13. Chapel Hill.

McCary, Ben C.
1954 A Paleo-Indian Workshop Site in Dinwiddie Virginia. *Southern Indian Studies* 5:9–10. Chapel Hill.

Murdock, G. P., et al.
1945 Outline of Cultural Materials. *Yale Anthropological Studies* 2.

Paschal, Herbert R., Jr.
1953 The Tuscarora Indians in North Carolina. Unpublished Master's thesis, Department of History, University of North Carolina, Chapel Hill.

Phillips, Philip, James A. Ford, and James B. Griffin
1951 *Archaeological Survey in the Lower Mississippi Alluvial Valley, 1940–1947*. Papers of the Peabody Museum of Archaeology and Ethnology 25, Cambridge.

Schmitt, Karl
1952 Archaeological Chronology of the Middle Atlantic States. In *Archaeology of Eastern United States*, edited by James B. Griffin, University of Chicago Press, Chicago.

Sears, William H.
1952 Ceramic Development in the South Appalachian Province. *American Antiquity* 18(2):101–110.

Sears, William H., and James B. Griffin
1950 Fiber-Tempered Pottery of the Southeast. *Prehistoric Pottery of the Eastern United States*. Museum of Anthropology, University of Michigan, Ann Arbor.

Setzler, Frank M., and Jesse D. Jennings
1941 *Peachtree Mound and Village Site, Cherokee County, North Carolina*. Bureau of American Ethnology Bulletin 131, Washington.

Shepherd, Anna O.
1956 *Ceramics for the Archaeologist*. Publication 609, Carnegie Institution of Washington, Washington.

South, Stanley A.
1955 Evolutionary Theory in Archaeology. *Southern Indian Studies* 7:10–32.

Stephenson, Robert L.
n.d. Accokeek: A Middle Atlantic Seaboard Culture Sequence. Unpublished doctorial thesis. On file at Research Laboratory of Anthropology, University of North Carolina, Chapel Hill.

Taylor, Walter
1948 *A Study of Archaeology*. American Anthropological Association Memoir 69. Menasha.

Wauchope, Robert
1948 The Ceramic Sequence in the Etowah Drainage, Northwest Georgia. *American Antiquity* 13(3):201–209.

1950 The Evolution and Persistence of Ceramic Motifs in Northern Georgia. *American Antiquity* 16(1):16–22.

INDEX