ARCHAEOLOGICAL INVESTIGATIONS AT HORSESHOE BEND

NATIONAL MILITARY PARK, ALABAMA

BY

ROY S. DICKENS, JR.

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PREFACE

The archaeological project at Horseshoe Bend was cosponsored by the National Park Service and Georgia State University. The fieldwork, carried out as Georgia State's 1973 Summer Field School in Archarology, lasted from June 11 to August 17. Laboratory processing and analysis was begun in September 1973 and completed in September 1975. A final report was submitted to the National Park Service on April 5, 1976. The present publication represents a revision of that report.

The Horseshoe Bend project benefited from the dedicated efforts of many individuals. Most of all, I would like to express my sincerest appreciation to the Georgia State students who worked with me in the field and laboratory. Many of them had the opportunity to be involved in the entire project, from the initial planning, through the field and laboratory work, and even to compilation of the final report. Indeed, several of them authored sections of that report, and hence of the present publication.

A special thanks goes to Michael Bower and Catherine Lee, who served ably as my field assistants. Mr. Bower was responsible for much of the field photography, and Ms. Lee carried out most of the site mapping. The field crew was composed of the following people:

Students

Richard Allen
Charles Babb
Janet Beasley
Rose Ann Billingsley
Michael Bower
Barry Brookner
Linda Carnes
Herbert Clark
Callaway Dietzen
Nicholas Dietzen
Rhonda Johnson
Brenda Lavelle
Catherine Lee
David Mathews
Michael McKinney
Mary Thompson
Carolyn Young

Volunteers

Carol Dickens
David Dickens
Theodore Kretchman

I was assisted in the laboratory by Michael Bower, Linda Carnes, and Barbara Duffé. Accessioning of all of the artifacts, field documents, and photographs was under the supervision of our departmental curator, Joan Rupp. Other laboratory personnel consisted of Charles Babb, Janet Beasley, Barry Brookner, David Mathews, Richard Allen and Rhonda Johnson. I was assisted in the preparation of the photographic plates for the report by Michael Bower, Michael Newhouse, and Gary Barber.

The line drawings were prepared by Roy Dickens (Figures 1, 2, 26, 27, 34, 40, 45, 62, and 67), James McKinley (Figures 33, 50, 90, 93, 100, 101; Figure 1, Appendix I; and Figure 1, Appendix II), Ruthanne Mitchell

(Figures 14, 15, 17, and 36), and Judy Chiapella (Figures 44, 49, 54, 58, and 63).

Aerial reconnaissance was an invaluable aid in planning the fieldwork at Horseshoe Bend, and the photographs taken during these flights form an important record of the excavations. I am grateful to Larry Lee and Dale Rupp for providing the aircraft and piloting the flights. Larry Lee also assisted in many other aspects of the project.

The soil resistivity surveys were conducted by John Combes of the South Carolina Institute of Archeology and Anthropology and Marshall "Woody" Williams of the University of Georgia.

The manuscript was typed by Jean Reed.

Richard Faust and John Walker of the Southeast Archaeological Center of the National Park Service were helpful and encouraging during all phases of the project. And, finally, much appreciation is due the staff of Horseshoe Bend National Military Park--Superintendent James Kretchman, Historian Roy Beasley, Ranger Ronald Warfield, and the others --for their friendship and willing assistance during the field season.

Roy S. Dickens, Jr.
Georgia State University
October 30, 1979

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CHAPTER 1

INTRODUCTION

Horseshoe Bend National Military Park is located on the upper Tallapoosa River in east-central Alabama (Figure 1). The park, established in 1959, contains within its 2040 acres the area of the 1814 battle between Andrew Jackson and the Creek Indians, the site of the village of Tohopeka, which was occupied by the Red Sticks immediately prior to the battle, and the site of the village of Nuyaka which was founded in 1777 and destroyed in 1813 (Figure 2). These sites are situated in close proximity to a large bend in the Tallapoosa River (Figure 3), for which the park and battle are named.

The battle site is located on elevated terrain within the "neck" of the river bend. Here, the Indians constructed a fortification, or "barricade," which stretched from bank to bank and was the focal point of the engagement. There is no remaining above-ground evidence of this fortification. The site of the village of Tohopeka lies in the "toe" of the river bend on the active river floodplain. The surface of this site has been severely scoured by river action during the past century. The Nuyaka village site is located on the northeastern portion of the park, mostly but not completely within the park boundary. It is about 1800 yards upstream from the river bend and on the opposite bank from the other two sites. Nuyaka covers a much larger area than Tohopeka and is situated on a first terrace of the river. It has been subjected to modern plowing, but is less damaged by river erosion than Tohopeka.

Both the battle site and Tohopeka village site are open to the public and form an integral part of the park's interpretive (museum and tour) program. The Nuyaka site, however, is presently closed to the public and is given only peripheral treatment on the museum exhibits interpretive literature.

Project Design

This project at Horseshoe Bend was brought about for the purpose of investigating specific historical and interpretive questions, and for enhancing the archaeological knowledge of Upper Creek culture in the late historic period. Four "project areas," outlined in the contract agreement, are listed below in order of priority:

(a) Indian Barricade site (A.D. 1814): archaeological investigations to determine, if possible, the location and construction details of the barricade so that it might be accurately reconstructed.

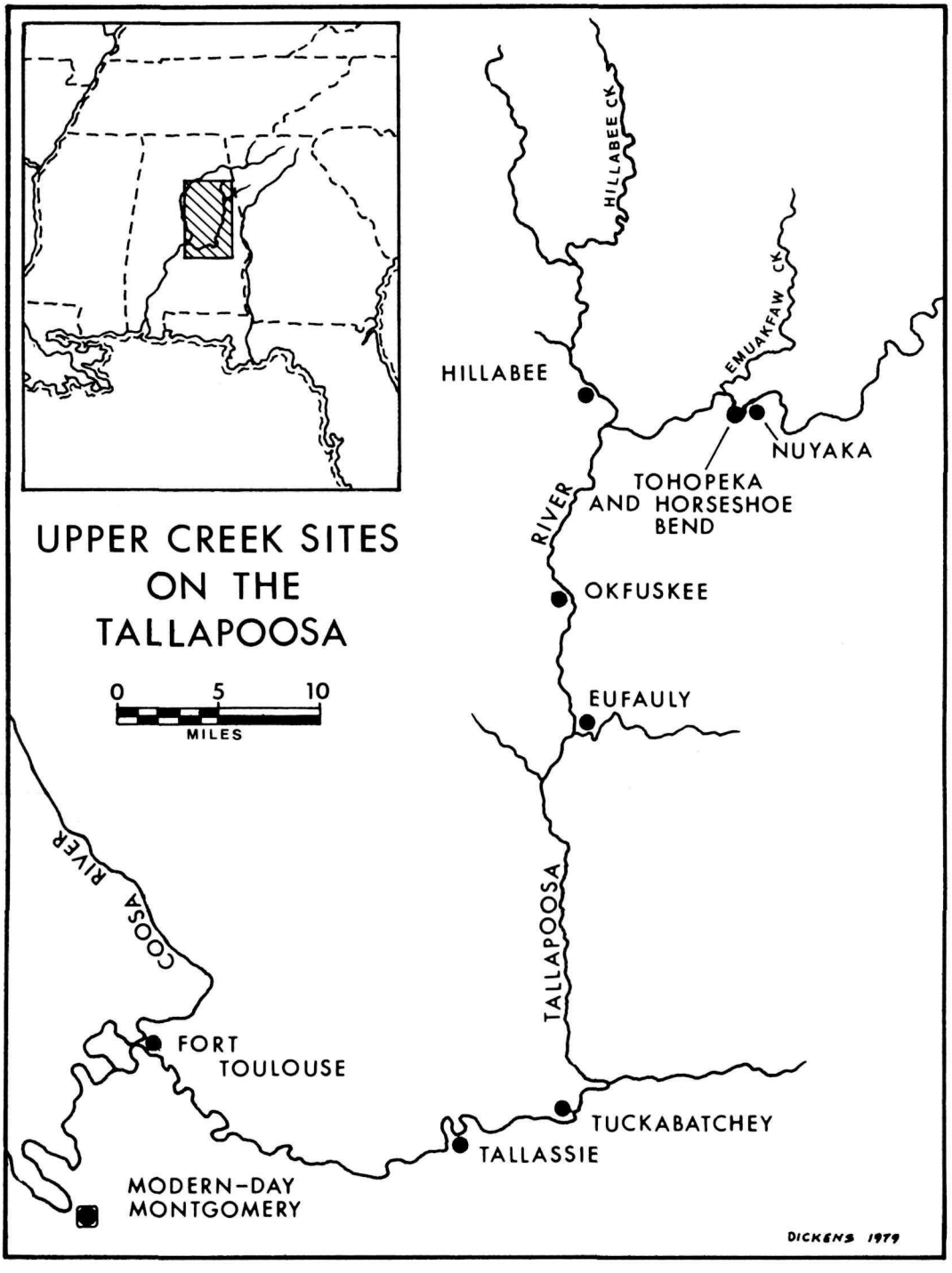

Figure 1. Map of East-Central Alabama, Showing Major Upper Creek Sites on the Tallapoosa River.

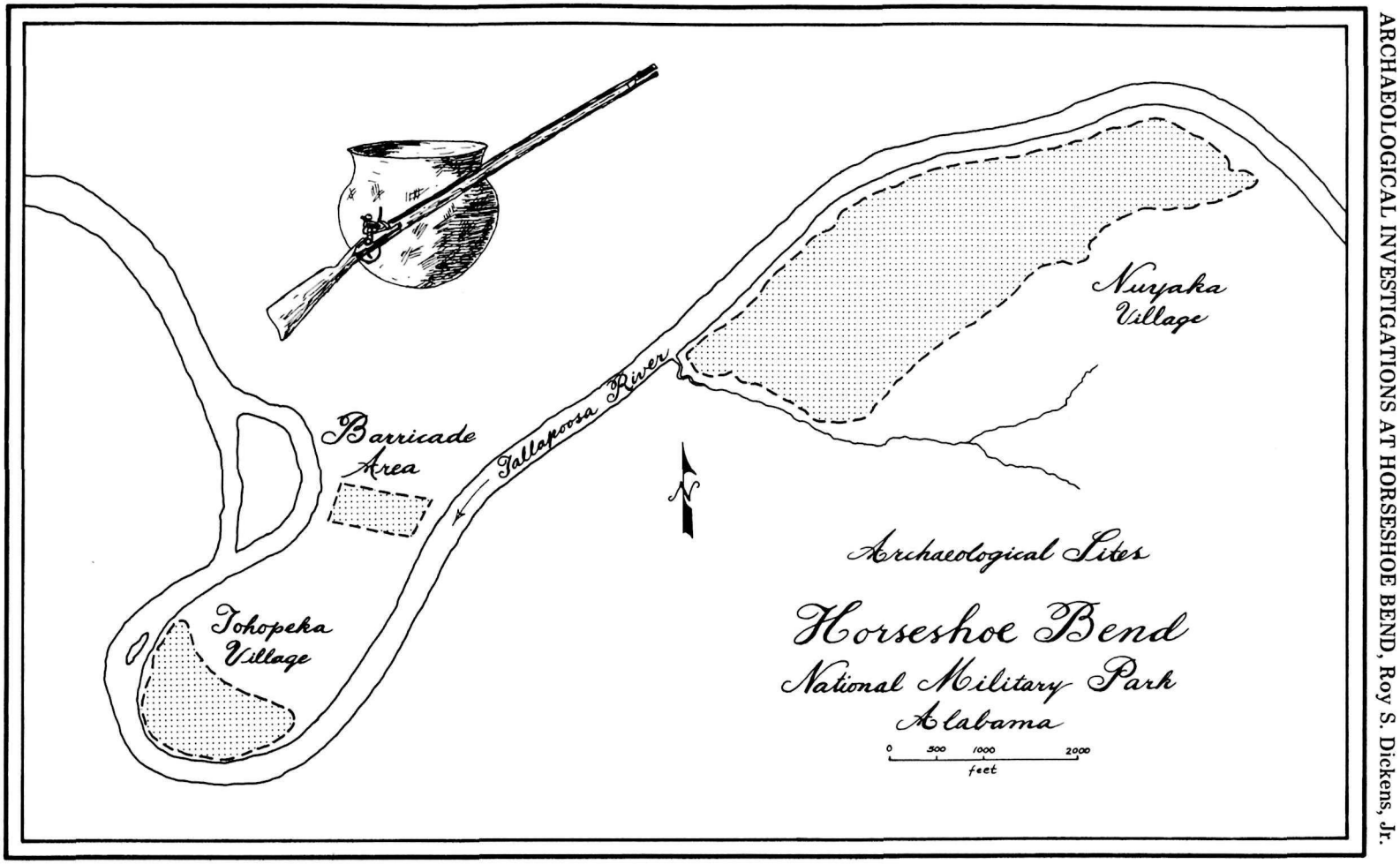

Figure 2. Map of Horseshoe Bend, Showing the Locations of Nuyaka Village, Tohopeka Village, and Barricade Area.

(b) Tohopeka Village site (A.D. 1813-1814): archaeological investigations to determine the locations and construction details of houses within the village and to obtain cultural materials and other data for park interpretive purposes.

(c) Nuyaka Village site (A.D. 1777-1813): archaeological investigations to obtain information that will allow for interpretions of cultural differences between Nuyaka (an acculturated Creek village) and Tohopeka (a Red Stick, or Creek nativistic movement, village).

(d) Indian Cave sites (A.D. 1814): archaeological investigations to locate, if possible, the river bank caves which according to tradition were used as refuges for some warriors near the end of the battle.

Scientific importance of the investigations was described as follows:

Archaeological research in the four project areas will be conducted to obtain information to aid in providing a more complete historical and anthropological interpretation of Horseshoe Bend National Military Park.

The Redstick fortification was a salient feature and focal point of the 1814 battle. Information on its location and construction would add significantly to a proper interpretation of the battle, and possibly could result in a field reconstruction of the feature.

The village sites of Nuyaka and Tohopeka offer a unique opportunity to investigate Creek Indian culture at two distinct phases in the acculturation period. Nuyaka should contain evidence of a combined European-aboriginal culture, with influence from Benjamin Hawkin's "civilizing" efforts. Tohopeka, on the other hand, should contain evidence for the nativistic revival of the prophets and of the cultural setting immediately prior to the battle. The excavations in both village areas would be aimed at the recovery of evidence related to house types, settlement patterns, technologies, social structures, ideologies, and subsistence patterns of the respective cultures. Information on any of the above would be especially important in the contexts at Horseshoe Bend because of its well defined temporal parameters and tribal identification.

Investigations of the cave sites, if such investigations are deemed appropriate and feasible, could produce valuable information on the 1814 cultural setting. This would be especially true, if, in fact, Creek warriors were buried alive in the caves.

The contract also contained an outline for a research plan:

1. Fieldwork:

The four areas of proposed investigation will require different research strategies, field techniques, and equipment. A preliminary research plan for each area is outlined below.

(a) Indian Barricade site:

An effort will be made to determine the location, structural detail, an extent of any remaining portions of the Redstick barricade from the 1814 battle. This investigation will consist of a combined approach utilizing studies of period documents and maps, surveys with electronic sensing equipment, and excavations.

Initial areas of promise will be determined from data provided by historical documentation and past excavations. Once these areas are delineated, systematic surveys with metal detectors and soil resistivity devices will be conducted. Finally, archaeological excavations (probably a combination of mechanical and hand excavation) will be carried out in specific locations suggested by the prior studies and surveys.

This phase of the project will be terminated by supervising archaeologist at such a time when he decides that sufficient information has been obtained or that further investigation would be fruitless.

(b) and (c) Tohopeka (A.D. 1813-1814) and Nuyaka (A.D. 1777-1813) village sites:

The research plans will be essentially the same for both village sites. Standard, systematic excavation and recording techniques will be employed to attempt to located house sites, burials, features, and other cultural remains of the two occupations. It is probable that these excavations will be carried out entirely by hand, although, if circumstances warrant, some mechanized equipment may be utilized. Metal detector and soil resistivity surveys may also be conducted.

A special effort will be made to locate and thoroughly excavate at least one house at each village site, so that specific comparisons can be made of the respective architecture and artifact associations.

Figure 3. Aerial view of Horseshoe Bend. The site of Tohopeka is in the toe of the horseshoe, and the Barricade site is to the left in the neck of the horseshoe. Nuyaka lies off the upper left corner of this photograph.

Figure 4. Excavating and sifting the plow zone at Tohopeka.

Figure 5. Troweling the base of the plow zone at Tohopeka.

(d) Indian Cave sites (A.D. 1814):

Investigation of the cave sites, purported to have been used by Redstick refugees at the close of the battle, will be given lowest priority in the overall project. Only if available time permits and a thorough study of the documents and the modern-day terrain yields significant leads, will this part of the project be pursued. If work is done in this area, standard excavation and recording techniques will be employed.

2. Analysis and final report:

Analysis and interpretation of data recovered in the field-work at Horseshoe Bend National Military Park will be aimed at providing a maximum historical and anthropological interpretation. This information will be submitted to the National Park Service in the form of a final typed-and-illustrated report suitable for publication and use in the preparation of museum and field exhibits.

In general, the research plans, as outlined above, were carried through on the project. During the fieldwork period, approximately three weeks (one-third of the field time) were devoted each to the barricade area, Tohopeka, and Nuyaka. Because no definite topographic or historical evidence could be found for the locations of the alleged "caves," this area was deleted and in its place a project of underwater archaeology was conducted toward the end of the summer and on a week-end basis during the succeeding fall.

Field Season

Prior to beginning the fieldwork, a large house in Alexander City, approximately 18 miles from the park, was rented and converted into field headquarters for the project. This house served as dormitory for the students, housing and office for the archaeologist and assistants, darkroom, drafting room, field laboratory, and class room. In addition, tents were set up at each site to serve as storage facilities and ready shelter from mid-summer rains.

Fieldwork was initiated at Tohopeka, where conditions were most amenable to "breaking-in" the crew. This site was accessible by paved park roads, the vegetation was kept well trimmed, and the sandy soil was relatively easy to excavate. After approximately two weeks at Tohopeka, part of the crew was moved to the Barricade site. Hand excavations at the barricade then occupied about three weeks. During the period of work at the barricade, excavations were completed at Tohopeka, and the portion of the crew that had remained at Tohopeka was

moved to Nuyaka. After completion of work at the barricade, and during the last two weeks of the project, all of the crew worked at the Nuyaka site.

By shifting the field crew in the above manner, it was possible for each student to be involved in a portion of the work at all three sites. Many of the tasks necessary at the sites prior to excavation--such as mapping, metal detection, soil resistivity surveys, and surface collecting--were conducted by the archaeologist and portions of the crew on weekends.

Before excavations were begun at each site, a permanent datum was established for horizontal and vertical control in excavation and mapping (an eight-inch diameter concrete column imbedded in the ground with the top exposed four inches above the ground surface). During the work at each site, a plane table map (one-foot contour intervals at Tohopeka and Nuyaka and two-foot contour intervals at the barricade) was constructed. All excavation units were recorded on these maps.

For a further permanent record of the excavations, three flights were made in a small aircraft during the course of the project for aerial photography. The first flight was made during the work at Tohopeka, a later flight was made at about the middle of the summer while the barricade excavations were in progress, and a final flight was made at the close of the summer when the work at Nuyaka was nearing completion. These flights produced black-and-white negatives and color slides as well as infrared black-and-white negatives of certain areas. It was hoped that the infrared photographs, especially of the barricade site, would reveal buried features.

Excavations at each site conformed to a ten-foot grid. Work in each ten-foot square was begun by removing the grass and weeds, after which all surface artifacts were collected and bagged. Next, the plow zone was removed with shovels, and all the dirt was processed through hand-operated sifters with one-quarter-inch screens (Figure 4). It was the archaeologist's judgement (which proved correct) that much information, especially distributional data, would be lost if the plow-disturbed soil were not sifted.

After removal of the plow zone, the floor of each excavation was carefully troweled in order to reveal intrusive features (Figure 5). If features were found, they were photographed in black-and-white and color (Figure 6) and drawn to scale (Figure 7). Then, feature fill was removed (Figure 8), and all of the soil was processed through a fine-mesh screen (1.3 mm. window screen) using gently-hosed water to separate the silt from small artifacts and food remains. This water-screening was carried out either at the field headquarters in Alexander City, or at an on-site facility utilizing water pumped from the river (Figure 9).

Figure 6. Photographic record of sub-plow zone features at Nuyaka.

Figure 7. Plotting sub-plow zone features at Tohopeka.

Figure 8. Careful excavation of a sub-plow zone feature at Nuyaka.

Figure 9. Water-screening pitfill from a feature at Nuyaka.

Excavation below the plow zone was carried out only at Tohopeka. In this work, the soil was divided into 0.5-foot arbitrary divisions or, when possible, by natural stratigraphic zones. The top of each arbitrary level, or stratigraphic zone, was troweled and features were drawn to scale and photographed. All excavation profiles also were drawn and photographed.

Historical Sources

Historical accounts of the Horseshoe Bend military activities (e.g., Reid and Eaton 1817), and of the area prior to the battle (e.g., Hawkins 1848) provided important background information for the archaeological investigations. Also, of particular value were the war-time maps of the Horseshoe Bend area drawn by Andrew Jackson (Figure 10), John Coffee (Figure 11), and John Cheatham (Figure 12).

Detailed descriptions or depictions of the villages of Tohopeka and Nuyaka could not be located (and it is doubtful that any exist). The brief references that are available will be discussed in Chapters III and IV. The somewhat more complete information on the battle site (including the above maps) will be analyzed and interpreted in Chapter II.

Prior Archaeological and Historical Research

In the summer of 1961, two years after the park was established, an archaeological project was conducted at Horseshoe Bend by a crew from Florida State University under the direction of Charles Fairbanks. Fairbanks conducted work at the same three sites as in the present project. The major difference was in the scope of the work. The Florida State crew was smaller and their excavations were limited primarily to scattered "test pits" in the two villages and to extensive hand-excavated and machine-excavated trenches in the barricade area.

Fairbanks succeeded in delineating the general locations of the two village sites and in defining an historic Creek component at each. At Tohopeka, he also identified a prehistoric component, represented by a sand-tempered pottery complex which he named "Dadeville" and for which he suggested a dating of A.D. 1200-1400 (Fairbanks 1962a:8).

In searching for remains of the barricade, Fairbanks dug a total of 1030 feet of hand-excavated trenches and another 1210 feet of trenches excavated with a ditching machine. Since these trenches produced no definite evidence of the fortification and only a few artifacts of the battle period, he concluded that "all traces of the land surface during Indian times have been removed by row cropping and erosion." He also stated that "I do not think that further archaeological excavation will be any more rewarding than our recent excavations....I believe inter-

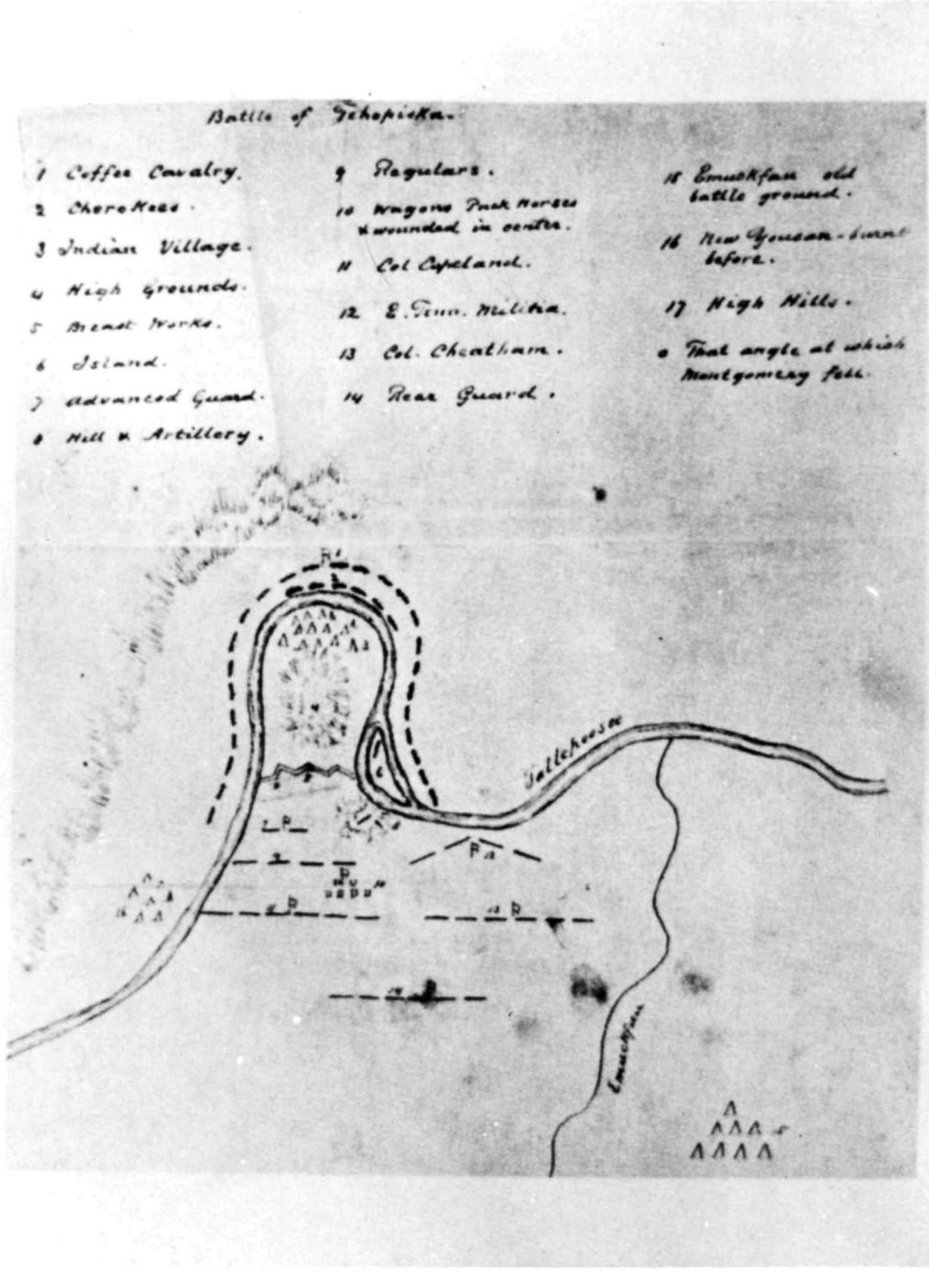

Figure 10. Andrew Jackson's 1814 map of Horseshoe Bend.

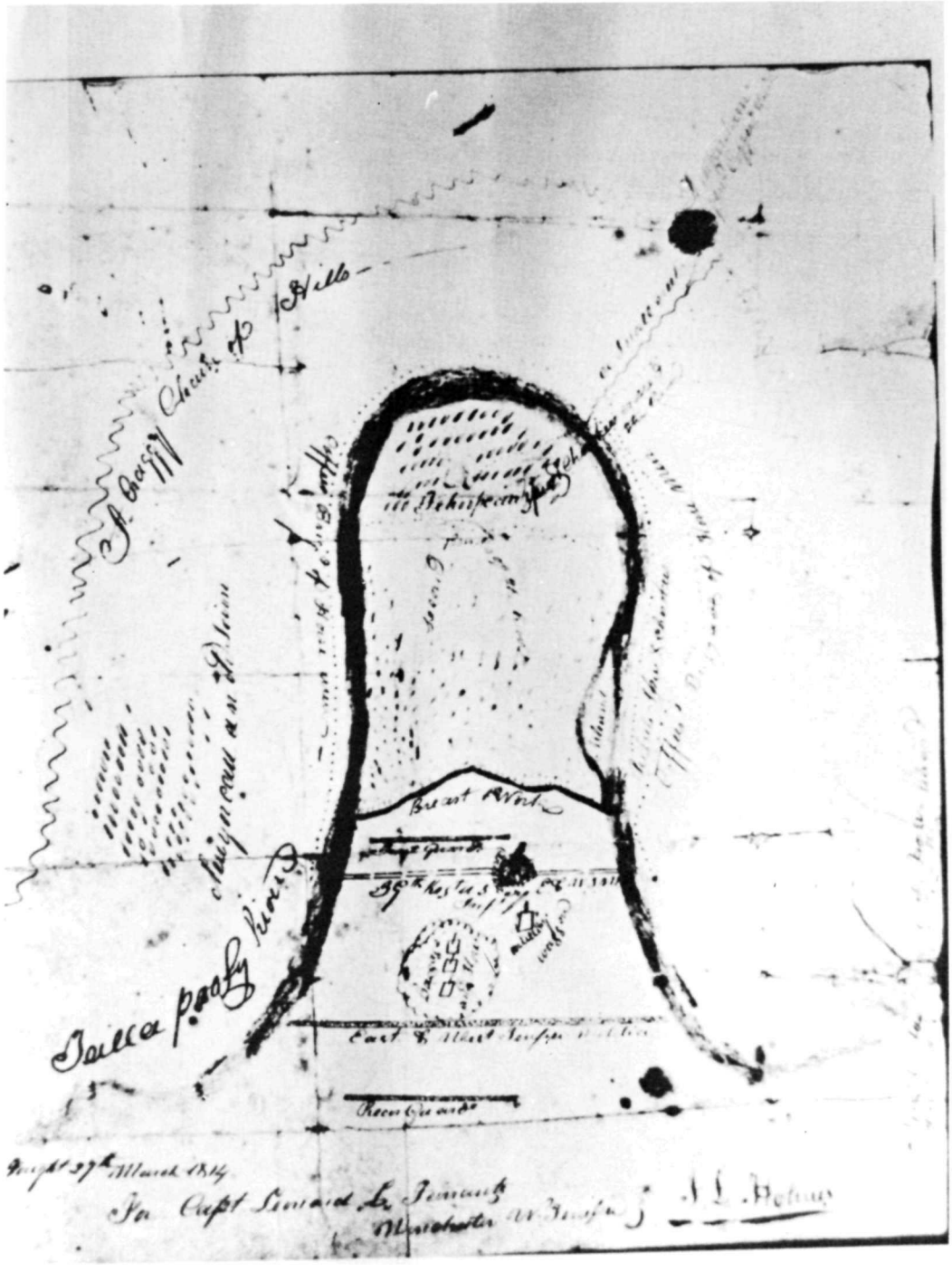

Figure 11. John Coffee's 1814 map of Horseshoe Bend.

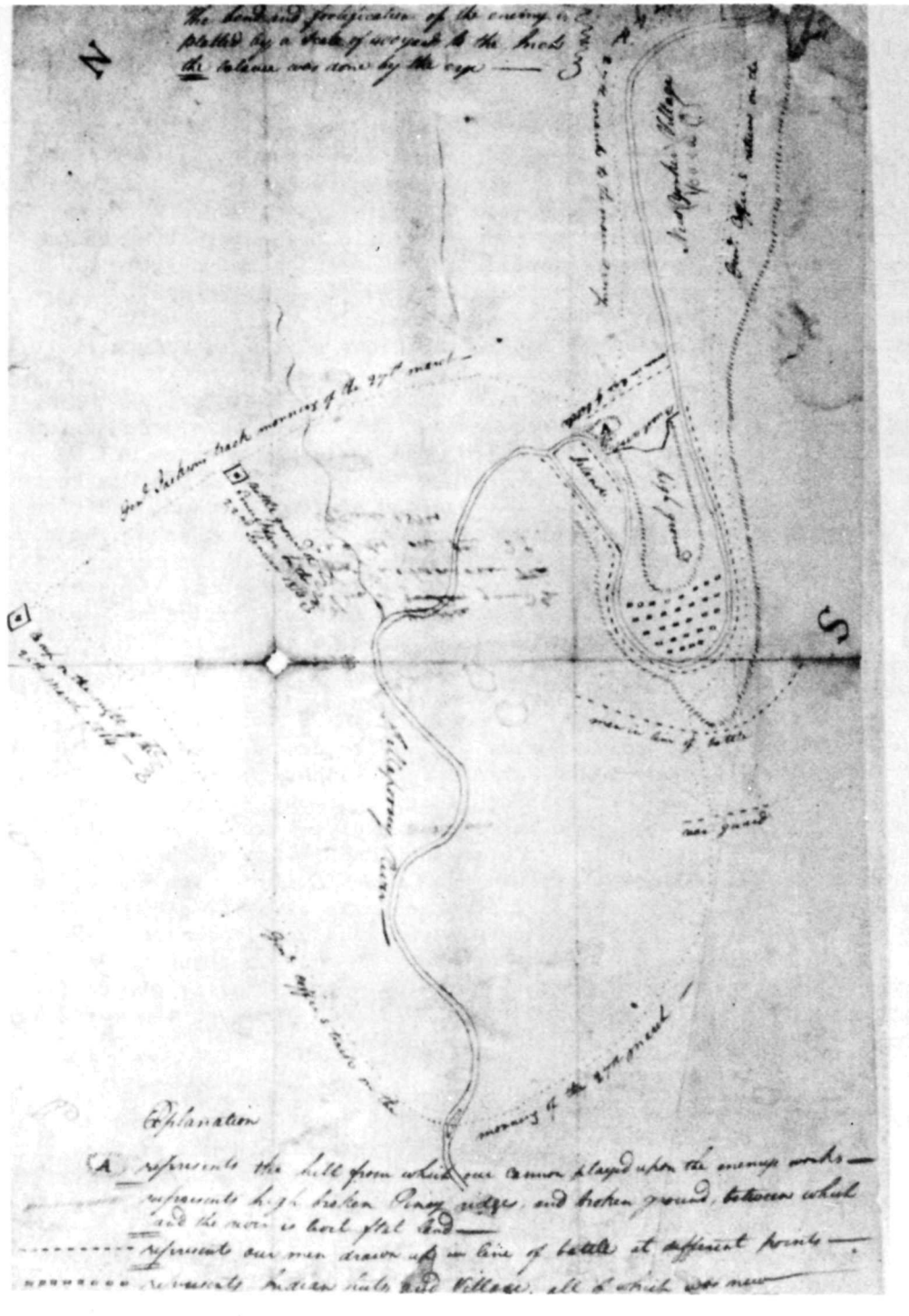

Figure 12. John Cheatham's 1814 map of Horseshoe Bend.

pretation [of the barricade] must rest on documentary evidence, not on archaeological recovery" (1962a:20-21).

For possible future work at the park, Fairbanks (1962a:20-23) recommended "a systematic sweep with mine detection equipment" in the battle area, large-scale trenching at Tohopeka to locate specific features and "to determine the plan of the village," underwater exploration in the Tallapoosa River, and systematic trenching at Nuyaka to reveal the town plan and to obtain "information on the culture of the towns participating in the Prophets' movement." "At Nuyaka," Fairbanks stated (1962a:23), "there is an unparalleled opportunity to excavate by modern methods a major Creek Town of the late 19th century."

In 1969, National Park Service historian George MacKenzie undertook a study of the documents concerning the Indian barricade at Horseshoe Bend. MacKenzie searched all of the available sources on the battle, and from this search he set out "to analyze all that is known concerning the breastwork from the various sources checked, and then relate this to the events as they are known to have happened, the topography of the battleground, both then and now, use of the terrain, and the archaeological [Fairbanks'] investigation" (MacKenzie (1969:vi). He further stated that "this study aims to furnish sufficient basis for continuance of archaeological investigation at the earliest opportunity and to give official support to a proposal to reconstruct the breastwork" (MacKenzie 1969:vi-vii).

In his search of contemporary and latter accounts of the battle, MacKenzie (1969:38-47a) found ample evidence that the barricade had been a substantial and well-planned fortification. He pointed out that the Creeks had long been involved in White military activities, and that some of the Indian leaders, such as William Weatherford, had received European military training and were familiar with the defensive works at Pensacola and Mobile. MacKenzie (1969:47-47b) concluded his study by suggesting that the barricade had been composed of "a double row of timbers laid down horizontally, one upon another and parallel to each other....held in place by vertical posts placed five feet apart....the clay fill....well tamped into place as the fortification was raised layer by layer to full height."

In addition to the historical evidence, MacKenzie (1969:33,46) noted that when a park road was constructed in 1964 across the battle site, several "burnt areas" had been uncovered at a depth of about two feet below the present ground surface. He thought that such features might represent remains of the barricade.

On the basis of the above evidence, MacKenzie (1969:48-52) concluded that Fairbanks' excavations had not been sufficient to preclude further search for archaeological remains at the battle site. He even suggested that additional archaeological work, together with contemporary maps and descriptions, might yield enough evidence on which to base a reconstruction of the barricade.

Both Fairbanks and MacKenzie, therefore, suggested that further archaeological work at Horseshoe Bend was in order. MacKenzie was more optimistic than Fairbanks about the possibilities of finding direct archaeological evidence of the Indian fortification. The next three chapters of this report describe and interpret the 1973 excavations at the barricade site and the two village sites. This is followed by sections on the artifacts and food remains recovered at the three sites. The final chapter summarizes and evaluates the results of the 1973 project. There are two appendices to the report, one which describes underwater archaeology in the Tallapoosa, and another which provides a narrative sketch of Upper Creek history.

CHAPTER II

THE BARRICADE SITE

The Indian barricade traversed the river bend on a neck of land that was approximately 1000 feet wide and elevated about 30 feet above the flood plain (Figures 13 and 14). The archaeological investigations in this area were designed to established finally whether or not there remained any physical evidence of the barricade. If evidence could be found, then excavations would be conducted to determine as much as possible about the general form of the fortification and details of its construction.

Fairbanks (1962a:3) had concluded from his 1961 excavations "that there now remains no possibility of locating the Indian fortification or locating any scrap of Indian land surface." He believed that modern plowing and sheet erosion had reduced the ground surface to a level several feet below the 1814 surface (Fairbanks 1962a:41). Mackenzie (1969), however, had raised fresh hopes of finding some archarological evidence when he pointed out the apparent sophistication and permanency of the barricade, and presented possible evidence for buried features in the battle area.

The present search for the barricade utilized historical descriptions and maps, aerial photography, soil resistivity surveys, metal detector surveys, and excavations.

Historical Sources

Early descriptions and maps of the battle were studied in order to gain information on the barricade's location and overall form, structural details (especially those relating to possible subsurface construction), and condition after the battle. The following are descriptions from primary sources, and from several of the more credible secondary sources.

Letter from Andrew Jackson to Thomas Pinckney, March 28, 1814 (Bassett 1926:488-489):

> It is impossible to conceive a situation more eligible for defence than the one they had chosen; and the skill which they manifested in their breast-work, was really astonishing. It extended across the point in such a direction as that a force approaching would be exposed to a double fire, while they lay entirely safe behind it. It would have been impossible to have raked it with cannon to any advantage even if we had had possession of one extremity...Having planted my cannon (one six and one three pounder) on an eminence at the distance of a hundred and fifty or two hundred yards from it, I opened upon it a very brisk fire, occassionally playing upon them with the musquetry and rifles whenever they shewed out from behind it. This was kept up, with a few intermissions, for about two hours.

Letter from Andrew Jackson to William Blount, March 31, 1814 (Bassett 1926:-289-492):

> Across the neck of land which leads into it [river bend] from the North, they had erected a breast-work of greatest compactness and strength, from five to eight feet high, and prepared with double rows of port-holes very artfully arranged. The figure of this wall manifested no less skill in the projection of it, than its construction: an army could not approach it without being exposed to a double and cross fire from the enemy who lay in perfect security behind it. The area of the peninsular, thus bounded by the breast-work includes, I conjecture, eighty or a hundred acres... I had planted my artillery on a small eminence, distant from its [barricade] nearest point about eighty yards, and from its farthest, about two hundred and fifty; from whence I immediately opened a brisk fire upon its center. With the musquetry and rifles I kept up a galling fire whenever the enemy shewed themselves behind their works or ventured to approach them.

Letter from Andrew Jackson to his wife, April 1, 1814 (Bassett 1926:492-494):

> They [the Indians] had possessed themselves of one of the most military sites, I ever saw, which they had as strongly fortified with logs, across the neck of a bend. I endeavoured, to levell the works with my cannon, but in vain The balls passed thro the works without shaking the wall, but carrying destruction to the enemy behind it.

Letter from Gideon Morgan to William Blount, April 1, 1814 (Niles' Weekly Register, April 30, 1814:148-149):

> The breastwork was composed of five large logs, with two ranges of port holes well put together, artillery had no effect more than to bore it whenever it sruck... The breast-work in its whole extent was lined by savages.

From The Life of Andrew Jackson (Reid and Eaton 1817:149):

> Surrounded almost entirely by the river, it [Tohopeka Village] was accessible only by a narrow neck of land, of three hundred and fifty yards width, which they had taken much pains to secure and defend, by placing large timbers and trunks of trees horizontally on each other, leaving but a single place of entrance. From a double row of port holes formed in it, they were enabled to give complete direction to their fire, whilst they lay in perfect security behind.

From Life and Public Service of Gen'l Andrew Jackson (Jenkins n.d.: 90):

> Across the neck of land by which the peninsula was entered from the north, the Indians had thrown up a rude breast-work of logs, seven or eight feet high, but so constructed

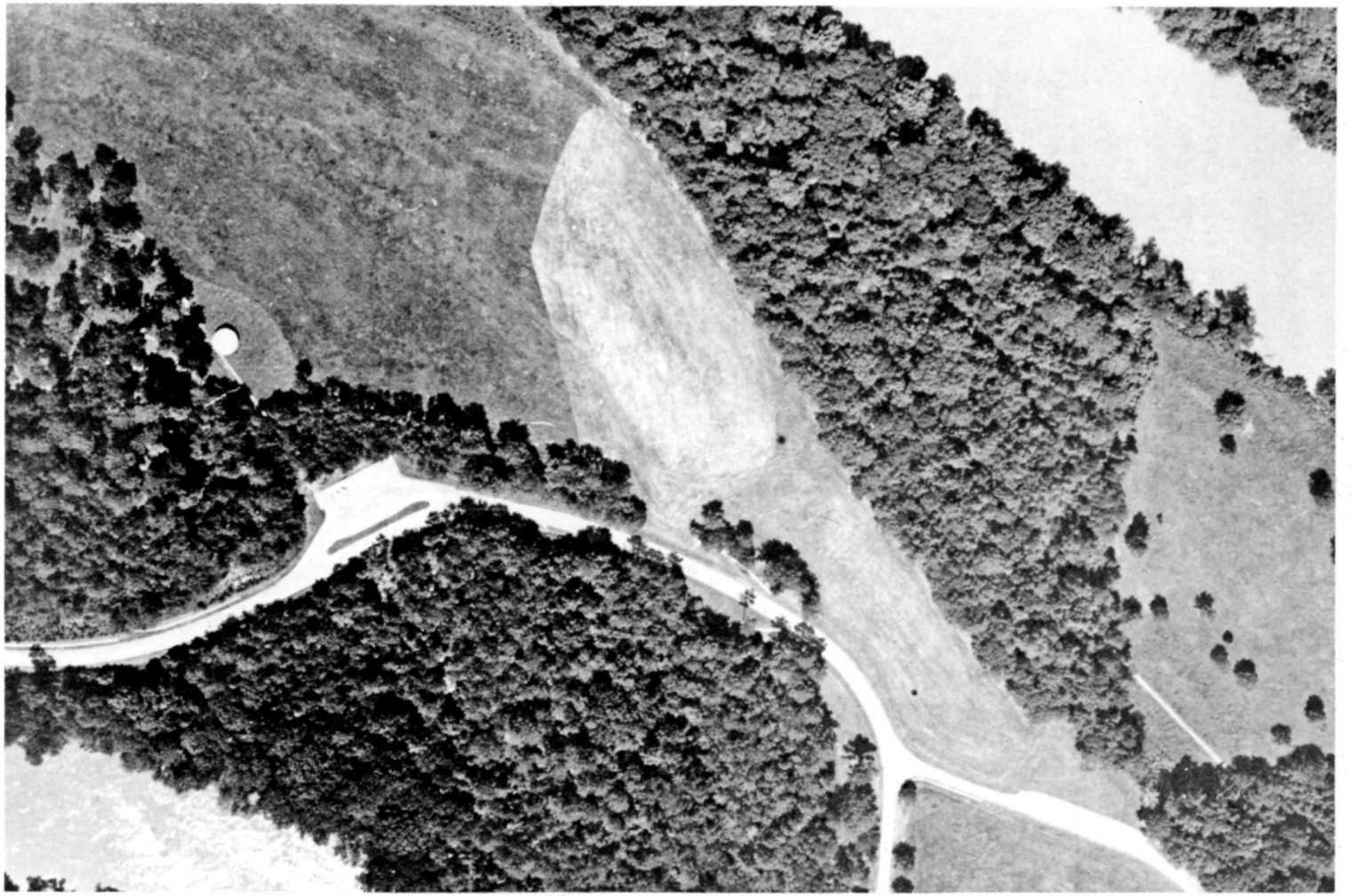

Figure 13. Aerial view of the Barricade site, with grass cut for first metal detector survey.

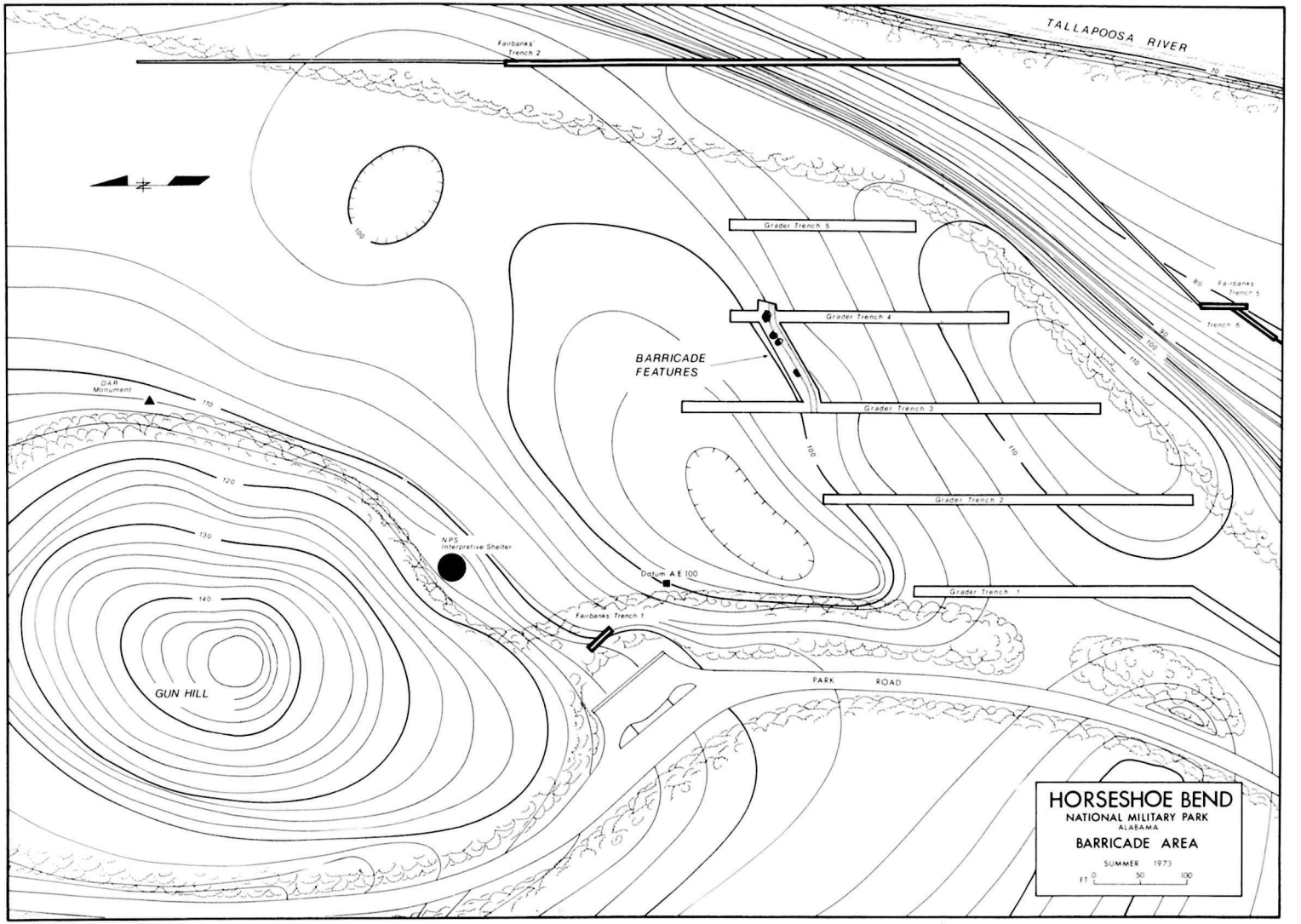

Figure 14. Contour Map of the Barricade Site.

that assailants would be exposed to a double and cross-fire. About a hundred acres lay within the bend.

From Red Eagle (Eggleston 1878:318, 322):
Across the isthmus the Indians had constructed a strong breastwork composed of heavy timbers built up into a thick wall, and designed, unlike the ordinary Indian stockade, to withstand artillery fire. This breast- was provided with port-holes through which the fire of the garrison could be delivered, and the angles of the fortification were so well and so regularly drawn after the manner of educated military engineers, that any force which should approach it in assault must do so at cost of marching under a front and an enfilading fire...The cannon-shot plunged into the fortifications at every discharge; but the parapet was too thick to be penetrated and except when a missile chanced to pass through a port-hole, the artillary fire accomplished very little.

From The Life of Sam Houston (Lester 1866:page unknown):
Where, but a few hours before a thousand brave savages had scowled on death and their assailants, there was nothing to be seen but volumes of dense smoke, rising heavily over the corpses of painted warriors, and the burning ruins of their fortifications.

Although the last quotation is the only direct reference to the barricade having been burned, there are statements in other accounts concerning the burning of Tohopeka (e.g. Niles' Weekly Register 1814: 147) and of brush piles behind which the Indians took refuge during the battle (e.g. Reid and Eaton 1817:151). It also seems probable that the barricade would have been destroyed in order to prevent its further use.

All three of the contemporary battle maps of Horseshoe Bend clearly depict the barricade, and show to some extent topographic features in the vicinity of the fortification. On Jackson's map (Figure 10), the barricade is drawn with seven sections that zig-zag to produce three reentrant angles. The sections seem to follow the contours of the terrain, in that the end sections are farther forward than the middle sections. Gun Hill, where Jackson set up his two pieces of artillery, is accurately positions opposite the west end of the barricade and near the river island.

On the Coffee map (Figure 11), a crude depiction of the barricade has only four sections with two reentrant angles. The fortification appears to follow the slope of the terrain, with the end sections farther forward than the middle sections. Gun Hill is incorrectly positioned opposite and a little west of the center of the barricade.

Cheatham, Jackson's topographic engineer, presents the barricade in great detail on his map (Figure 12). It is shown with six sections of approximately equal length arranged to produce three reentrant angles. The four central sections form a prominent recess at the lowest point in the terrain, while the east and west ends are brought forward along the higher east-west trending slopes. Such an arrangement would have allowed for the cross fire described in the preceding accounts. Gun Hill is shown in its proper position opposite the west end of the fortification.

Using a Map-O-Graph machine, the three battle maps were enlarged to the same scale as a modern topographic map. Since the early maps displayed definite inaccuracies and inconsistencies, certain recurring features were chosen as match points in controlling the enlargements. These features were: the point of greatest width in the river bend, the center of Gun Hill, the center of the island, and the narrowest point in the river bend (neck of the horseshoe). Each map was enlarged on the machine until a maximum "fit," utilizing the above features, was obtained.

After the enlargements were completed, the three depictions of the barricade were traced onto the modern topographic map (Figure 15). These enlargements place the barricade at varying distances from Gun Hill. Cheatham's location is farthest to the north, Jackson's is farthest to the south, and Coffee's is intermediate but closer to Cheatham's location. The location from the Jackson map is closer to the traditional placement by historians. Also, this is where Mackenzie (1969:37) suggested that the archaeologists should concentrate their efforts, and where the Park Service had placed logs to mark the location of the barricade. It is the highest ground opposite Gun Hill, and probably for this reason seemed the most logical location to many students of the battle.

However, since Cheatham's map appears in every way to be the most accurate depiction of the battle area, and since he was a professional topographic engineer, one is more inclined to accept his rendition of the form and location of the barricade, even though it may seem unlikely that the Indians would have built their fortification in a low lying area with high ground behind them and in front of them.

The contemporary descriptions and battle maps provided the following conclusions: (1) The barricade was a strong and well-planned fortification; (2) it consisted of a double row of horizontal logs, probably having earth fill between the walls; (3) it was five to eight feet high and had a double row of port holes; (4) it probably had vertical posts at relatively close intervals on the outside to support the heavy and tall horizontal walls; (5) it had approximately six segments, arranged in zig-zag pattern to produce strategic reentrant angles; (6) it was designed, in overall pattern, to conform to the advantages offered by the natural topography (i.e. it was recessed at its center to allow for a cross-fire from the higher ground on the east and west ends); (7) it was probably located farther to the north than previously thought, even though the ground in the area traversed by the middle of the barricade was lower than to the south; (8) and it probably was burned following the battle.

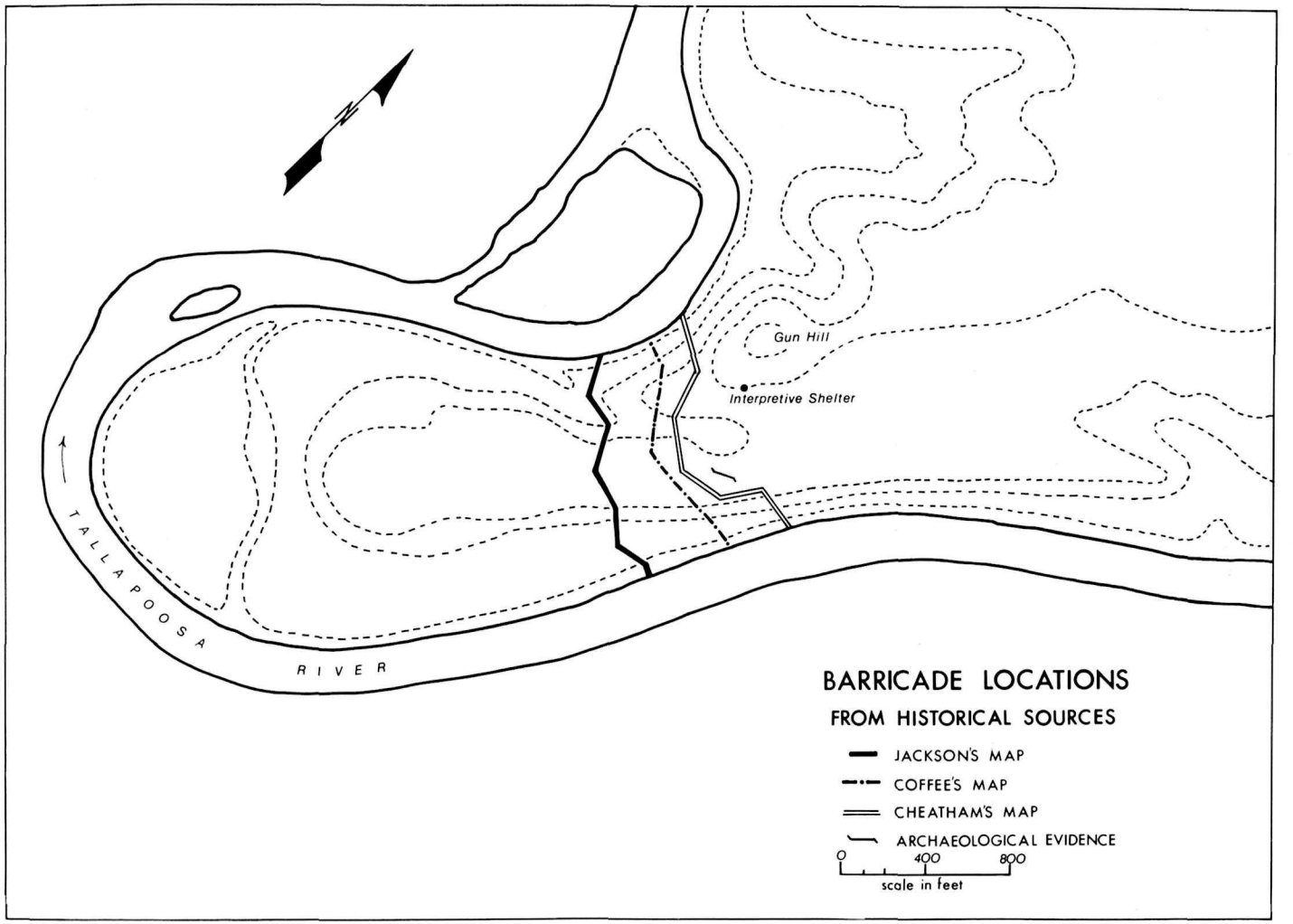

Figure 15. Map Showing Locations of Barricade from Historical Maps.

Aerial Photography

At the beginning of the field season, a flight was made over the barricade area and vertical photographs were made with standard black-and-white, color, and infrared black-and-white film. It was hoped that these photographs, especially the infrared shots, would reveal soil or vegetational marks related to the barricade.

After careful studies of the photographs, two linear features were defined. These appeared vaguely as dark streaks running east-west in the open field southeast of Gun Hill and in the area of Cheatham's and Coffee's placement of the barricade. These streaks were present with approximately equal clarity in all three types of photography.

When these photographs were checked against older aerial photographs on file at the park headquarters (one pair of oblique black-and-white shots were made as early as 1929), it was discovered that one of the features was an old farm road bed and the other an eroded agricultural terrace. Although the aerial photographs were valuable later in mapping of the barricade area, they did not produce any information to aid in placement of the electronic surveys and excavations.

Metal Detector Surveys

Metal detector surveys were conducted in the barricade area in hopes that, in spite of intensive farming and other surface disturbances, a certain amount of the metal artifacts lost at the time of the battle would still be present. Furthermore, if Jackson's artillery and small arms fire had been concentrated on the barricade for two hours followed by heavy hand-to-hand fighting at the fortification, one would expect any remaining metal artifacts, especially ammunition, to be concentrated along the route of the barricade.

The instruments used in these surveys were a Metrotec Model 220 and a Fisher Model 0121 (Figure 16). The Metrotec is very sensitive in detecting small non-ferous objects; the Fisher, when set on its "minus" adjustment, is more sensitive than the Metrotec in detecting ferous metals and its depth penetration is somewhat better. During the surveys, both instruments were used in succession to cover the same ground. The desirability of using both types of detectors is demonstrated by the fact that most of the lead artifacts were located with the Metrotec, whereas most of the iron artifacts were recovered with the Fisher on its "minus" setting.

Survey Area 1 (Figures 13 and 17) was demarked on the north by the approximate location of the barricade on the Cheatham map, the southern boundary was the approximate location of the barricade on the Jackson map, the eastern limit was the edge of the woods, and the western boundary was the park road. The total area amounted to over 100,000 square feet.

In order to work the detectors close to the ground, the park maintenance crew used a rotary mower and then a reel mower to trim the grass over the entire survey area. The final mower paths, about three feet in width, were then used as a guide in the survey work. Two operators, one using the Fisher instrument and the other the Metrotec, walked in succession along the paths. The coverage (swing of the instrument) on each path was overlapped with the previous one, so as to avoid missing any areas. All finds were marked with a wooden stake. Numbers were assigned only to the finds that were possibly of early 19th-century origin.

Numerous artifacts of the late nineteenth and twentieth centuries were recovered in Survey Area 1. These included plow blades, tin cans, bottle caps, bolts, screws, fence wire, and nails. Only one battle-related artifact (designated Find No. 1) was recovered in Survey Area 1. This item was a small, faceted lead shot (probably a canister shot) and it was found close to the northern edge of the survey area (Figure 17).

The poor results of the initial metal detector survey led to a decision to extend the soil resistivity surveys and grader trenching to the north of Area 1. Plans also were made to conduct additional metal detector surveys farther to the north.

Survey Area 2, consisting of approximately 33,000 square feet and located adjacent to the northeast end of Area 1, was established following the discovery of portions of the barricade in Grader Trenches 3 and 4 (Figure 17). This area was surveyed for the purpose of testing the original hypothesis that battle-related artifacts would be clustered along the route of the barricade.

Metal detection in Area 2 was conducted in the same manner as in Area 1. Again, a number of recent metal items was present, but in addition, ten definite battle-related artifacts were recovered. In all, twenty-two finds from Area 2 were numbered, but only Finds 3, 6, 7, 8, 14, 15, 18, 19, 20, and 21 could be positively assigned to the battle period. These finds consisted of five lead rifle balls, three iron grape shot, and two iron cut nails. The finding of ten battle-related artifacts in Area 2, which was less than one-third the size of Area 1, and the definite patterned distribution of these artifacts along the route (or at least the projected route for Finds 14, 15, 18, and 19) of the barricade, provided substantiation of the original hypothesis.

Soil Resistivity Surveys

Following the metal detector survey in Area 1, five parallel lines, spaced 100 feet apart, were laid out in a north-south direction, at a right angle to the alignment of the barricade as depicted on the three battle maps. Line 1, the western most, was 700 feet long. It

began just north of the park loop road near the Nuyaka overlook, ran 400 feet northeast, and then turned due north for another 300 feet. Line 2, 400 feet long, was located 100 feet east of Line 1 and extended 100 feet farther north than Line 1. Line 3, 450 feet long, extended 150 feet farther to the north than Line 2. Line 4 was 300 feet long, and Line 5 was 200 feet long (Figure 14).

Soil resistivity surveys, using a 1000-cycle bridge-type instrument, were conducted along these lines, with readings being taken at three-foot intervals (Figure 18). The purpose of these surveys was to detect subsurface burned areas or disturbances, points of resistence to an electrical current passing through the ground between two metal probes.

Although irregularly spaced "anomalies" were recorded along the five lines, there were no definite patterns from one line to another. Nevertheless, all readings were recorded and plotted as continuous graphs. The anomalous readings later were checked in the grader trenches, but all of these points proved to have no relationship to aboriginal features (usually they were areas of unusually rocky subsoil). Actually, when the barricade was finally discovered, it was found that the resistivity surveys had crossed it only on Lines 3 and 4, and that the instruments had not registered the barricade features.

Grader Trenching

Following the metal detector survey in Area 1 and the soil resistivity surveys along Lines 1 through 5, excavations with a road grader (provided through the courtesy of the Montgomery County Highway Department) were begun. These excavations consisted of stripping the plow zone in twelve-foot-wide trenches along the lines previously laid out for the resistivity surveys. Lines 1 through 5 now became Grader Trenches 1 through 5 (Figures 14, 17, 19, and 20).

The grader operator worked with care and skill to remove only the plow zone and to conclude his work in each trench by leaving the floor as clean as possible. In most cases, it was easy to detect even the most subtle disturbances on the floors of these freshly graded trenches. Actually, in this situation, where the subsoil was a tough, gravel-laden clay, the grader cuts seemed equal to hand-troweled surfaces.

A few subsoil disturbances were observed in Trenches 1 and 2. At the angle in Trench 1, the remains of an erosional gully, filled in by the park crew in 1960, was uncovered. Several smaller disturbances, which appeared at random locations, seemed to be rotted or burned-out stumps. The southern portions of Trenches 3 and 4 also contained a few stump molds and other small disturbances.

In the northern ends of Trenches 3 and 4, at points approximately

Figure 16. Metal detector survey in progress. Stake marks the location of a find. Gun hill is in background.

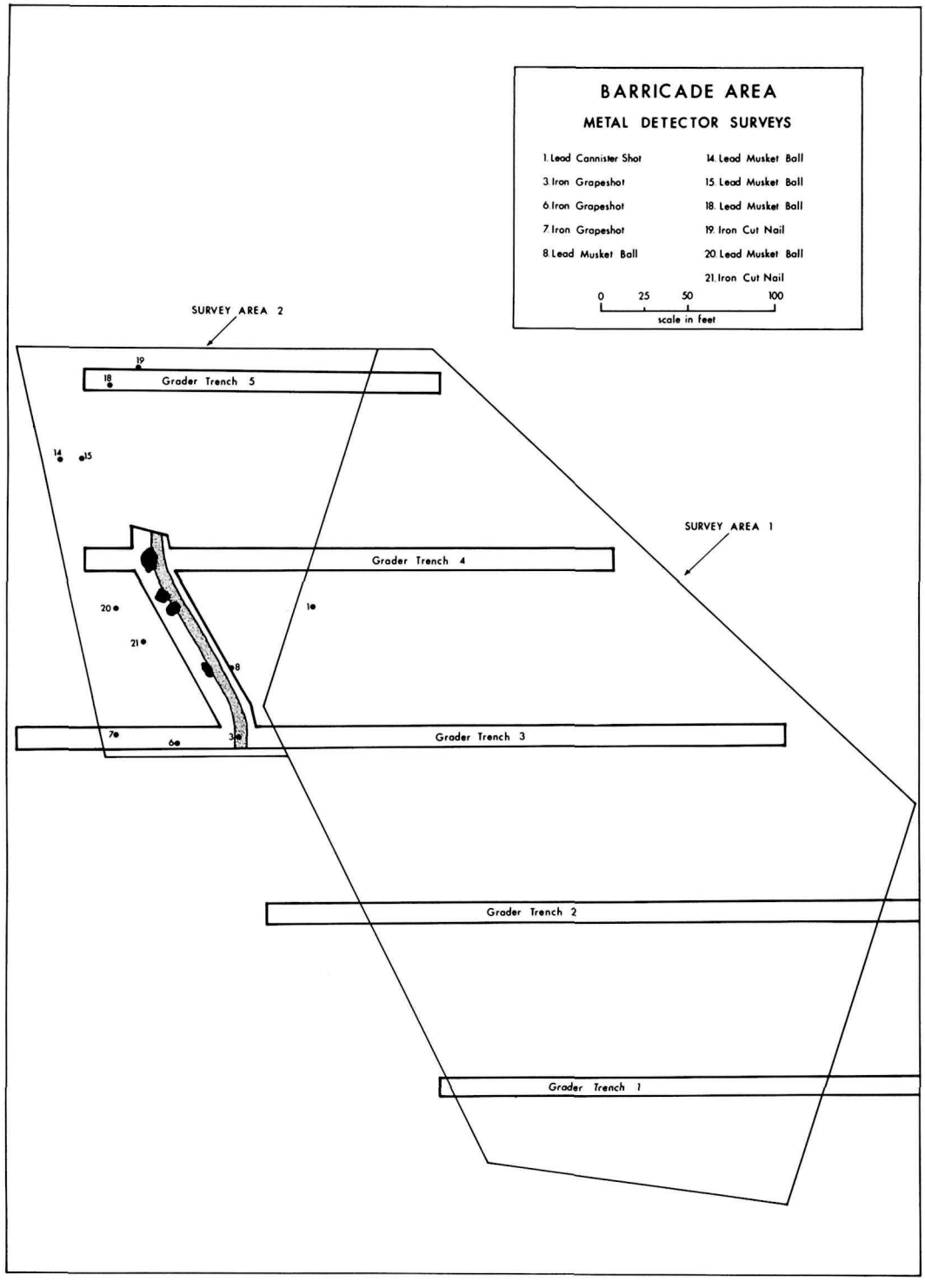

Figure 17. Metal Detector Survey Areas at the Barricade Site.

Figure 18. Soil resistivity survey in progress at the Barricade site.

opposite one another, the grader revealed two very distinct disturbances, which later proved to be parts of the same feature. The disturbance in Trench 3 consisted of a six-foot wide, sand-filled feature, which was cut by the grader at approximately ninety degrees to its long axis (Figure 17). A similar feature, which was aligned east-northeast by westsouthwest, was encountered in Trench 4 (Figures 17 and 21). Just north of this feature was a large, roughly circular disturbance containing sand, burnt clay, ash, and charcoal. In this area, the grader blade also turned up several Ocmulgee Fields Plain sherds.

After these features were troweled and photographed, a two-by-sixteen-foot excavation was made across each in order to obtain profiles (Figures 21, 22, 23, and 24). The sand-filled features proved to be shallow ditches containing laminated sands and clays near the edges and more homogeneous clay at the centers. At the bottom of the ditches, and parallel to their long axes, were distinct linear impressions that appeared to be the molds of horizontal logs (Figure 24).

The large, circular feature in Trench 4 proved to be a four foot deep pit with complex stratigraphy (this was later designated Feature 1). It contained a large amount of burnt clay throughout, but there were also patches of unburnt clay, gravel, and sand, especially near the bottom. At the top of the pit were concentrations of charcoal and ash, sections of burnt logs, a cluster of wedge-shaped, hard-fired chunks of clay, and a few additional Ocmulgee Fields Plain sherds.

It was at this time that the second metal detector survey (Area 2) was initiated. The positive results of this survey (which already have been described), along with the findings in the grader trenches, made it highly probable that features related to the barricade had been encountered. If these suspicions were correct, one would expect to find the sand-and-clay filled ditch to be continuous between Grader Trenches 3 and 4, and possibly to find additional pits similar to the one in Grader Trench 4, along with further evidence of burning.

The road grader was now employed to carefully scrape the plow zone from a twenty-foot wide corridor between the locations of the previously defined features (Figure 25). As this scraping reached the base of the plow zone, it became obvious that the suspicions were correct. The shallow, sand-and-clay filled ditch was continuous, and there were three additional large pits containing burned debris. There was also evidence of burning of the soil between the pits and along the entire north margin of the ditch. In an effort to delineate these features as clearly as possible, the entire area was flat-shoveled and troweled. Although this produced a generally neater surface on which to work, this hand scraping improved very little the clarity of the features as revealed by the grader.

At this point, it was decided to use the grader to trace the ditch east of Trench 4. However, this effort was deterred by several days of heavy rain. When the rain ceased, a second attempt was made to

scrape the plow zone from the new area. After a few passes, however, it became obvious that the ground was too saturated for the heavy machine. The tires would slip and become mired, destroying the freshly scraped surface. Rather than risk damaging the shallow remains of the ditch, no further effort was made to trace the barricade features to the east or west of the portions already uncovered.

Barricade Ditch

The exposed portion of barricade ditch (Figure 26) measured 132 feet long and from 4.5 to 7 feet wide. It was from 0.5 to 1.5 feet deep (generally deeper on the east end). The middle portion of the ditch, for a distance of about 90 feet, was aligned northeast by southwest. There was a distinct turn about 15 feet from the west end, where it appeared to take a due west direction. About 25 to 30 feet from the east end, there was a more gradual turn to a nearly due east direction.

Fill was removed from two portions of the ditch, a 12-foot section on the west end and a 48-foot section on the east end. Near the center of the ditch, the fill was a rather homogeneous clay intermixed with lensed sands and clays. Along the edges, the fill was uniformly lensed sands and clays. Parallel, linear molds, generally concave to slightly angular in cross-section, were found in the bottom of the ditch (Figures 27and 28). These molds, apparently resulting from embedded horizontal logs, numbered four along most of the excavated portions of the ditch. The greatest space was usually between the two center molds, suggesting that the logs were paired on the lowest tier. Although it was not possible to determine precisely the overall length of any one of the molds, one could estimate that the original logs were about 25 to 40 feet long. The widths of the molds ranged from 0.6 to 1.5 foot, indicating the approximate diameters of the original logs. One mold contained a short, badly decayed section of log, possibly "heart" pine.

At several locations along the north edge of the ditch were small, horizontal, sand-filled molds positioned at right angles to the log molds. In one area, adjacent to Features 2 and 3, these small molds were equally spaced at intervals of approximately 0.6 foot (Figures 27 and 28). They measured about 0.15 foot wide and 0.8 foot long. They sloped upward away from the ditch, as if they had resulted from poles driven into the ground at an angle of about 30 to 40 degrees.

The ditch contained only a few artifacts. This was to be expected, however, if the architectural interpretation presented at the end of this chapter is correct. The only military artifact was an iron grape shot found by the metal detector in the fill, just inside the north edge of the ditch where it crossed Grader Trench 3 (Figure 29). Other artifacts from the ditch were:

5 sherds, Ocmulgee Fields Plain

Figure 19. Grader trenching at the Barricade site.

Figure 20. Aerial view of the grader trenches, looking southwest.

Figure 21. Barricade features uncovered in grader trench 4, looking southeast. Test excavation across Feature 1 is in progress.

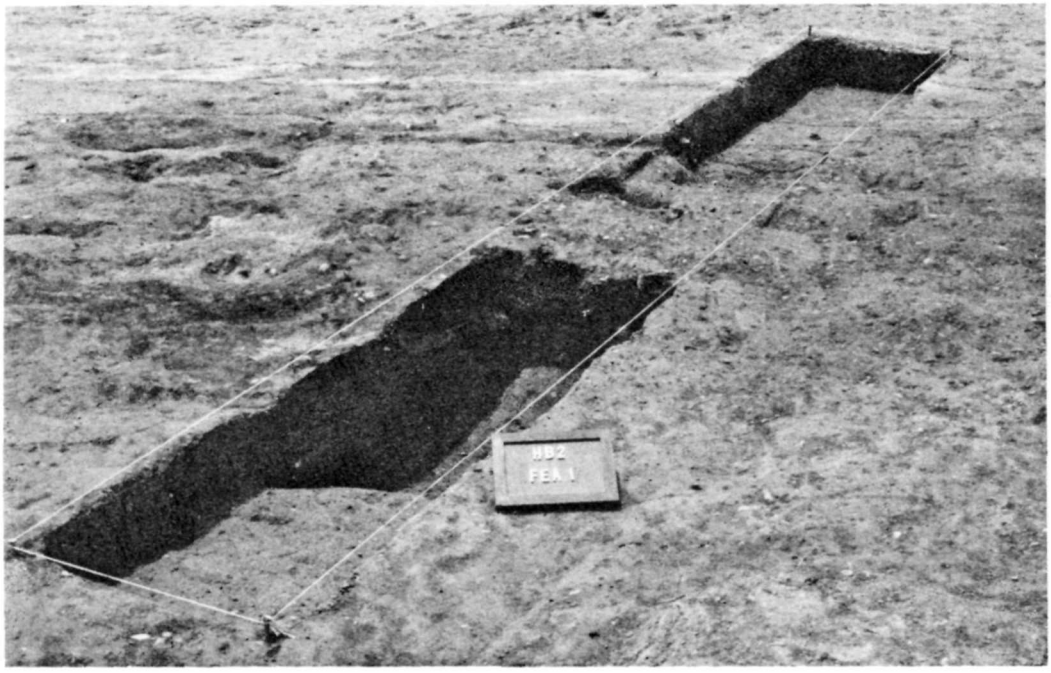

Figure 22. Test excavation across the Barricade ditch and Feature 1.

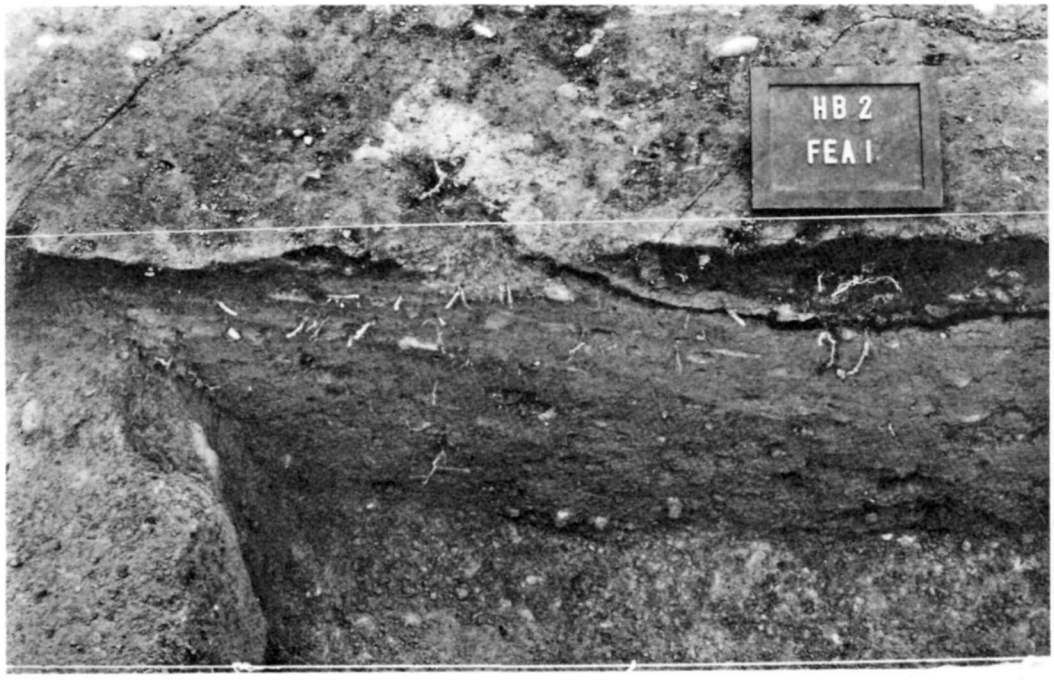

Figure 23. Profile of Feature 1 at the Barricade site.

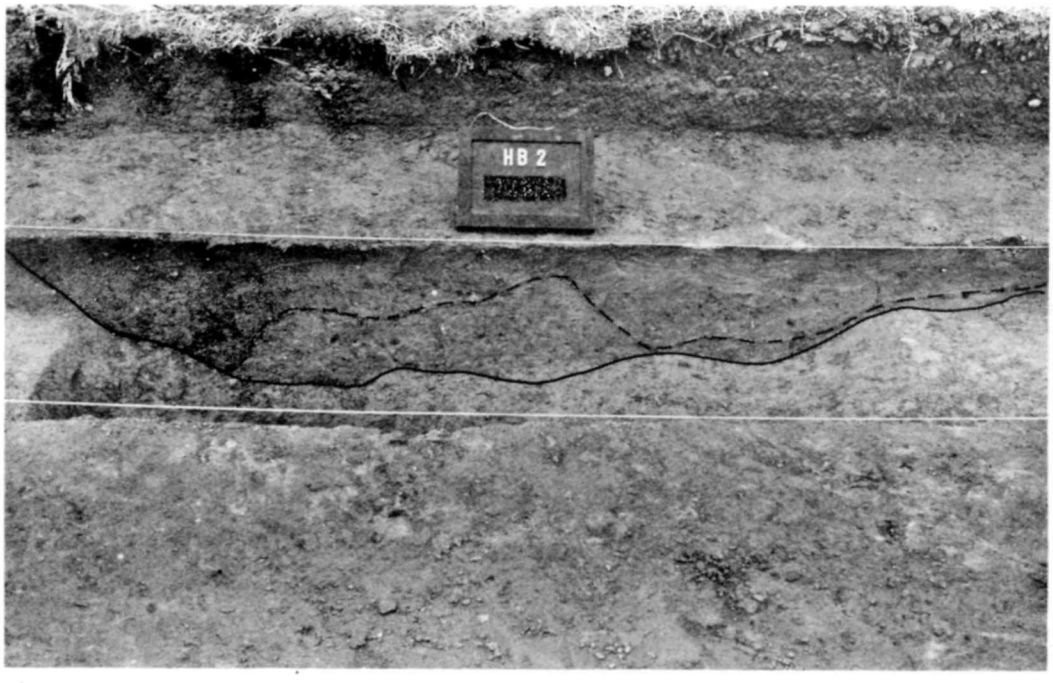

Figure 24. Profile of the Barricade ditch in grader trench 3.

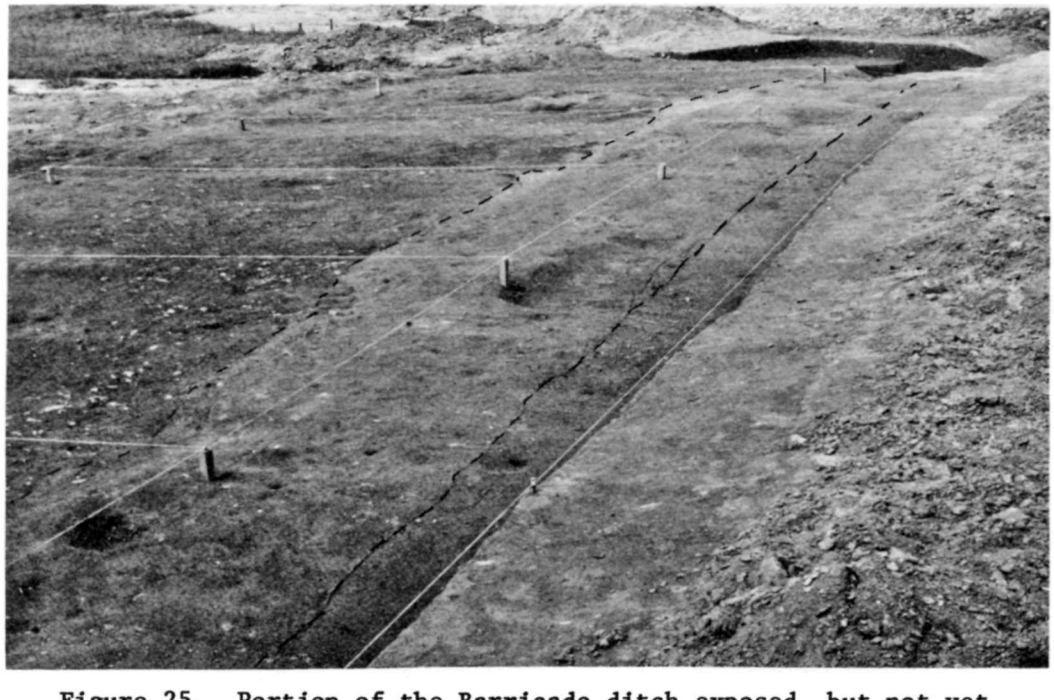

Figure 25. Portion of the Barricade ditch exposed, but not yet excavated.

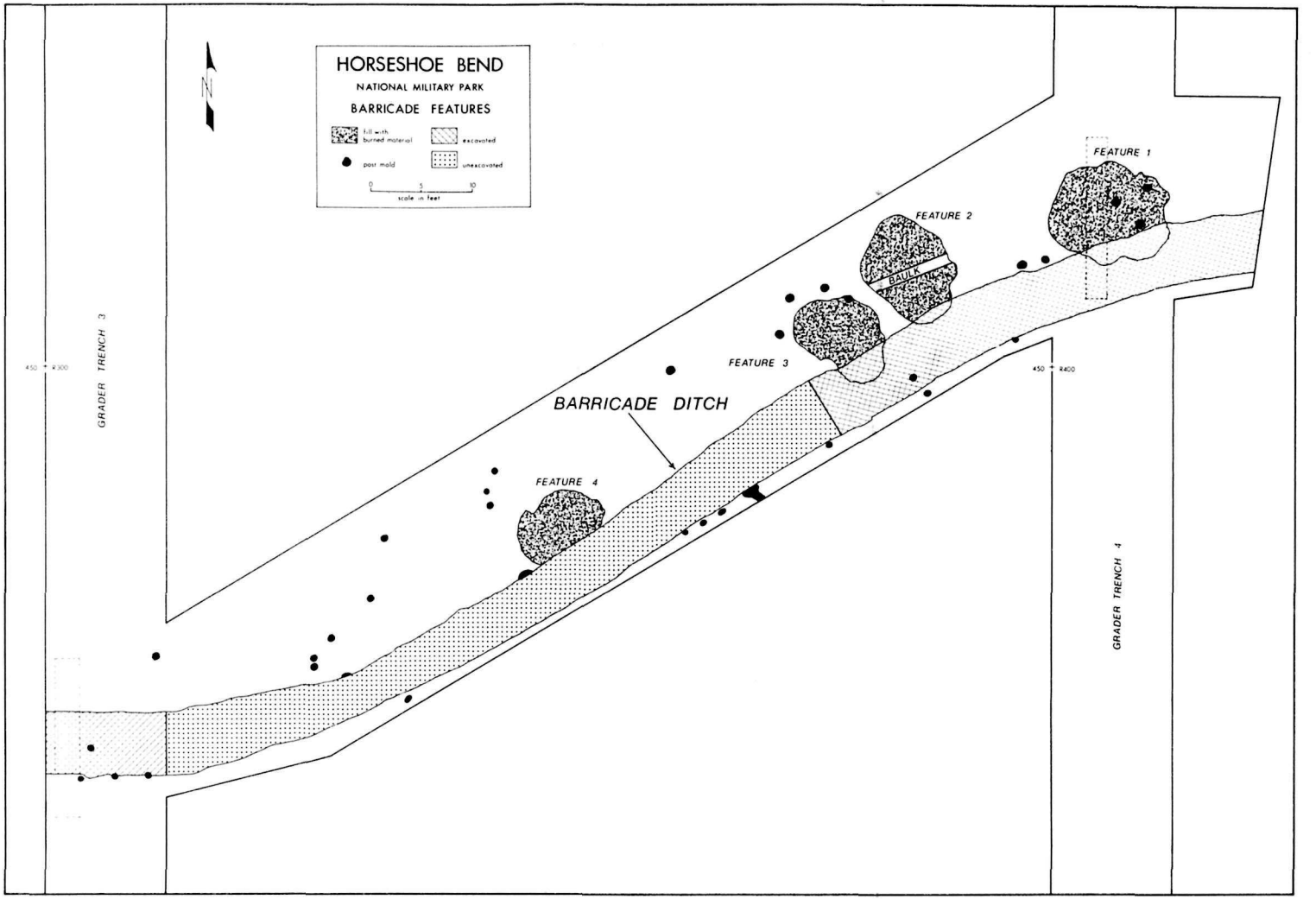

Figure 26. Plan of the Barricade Features.

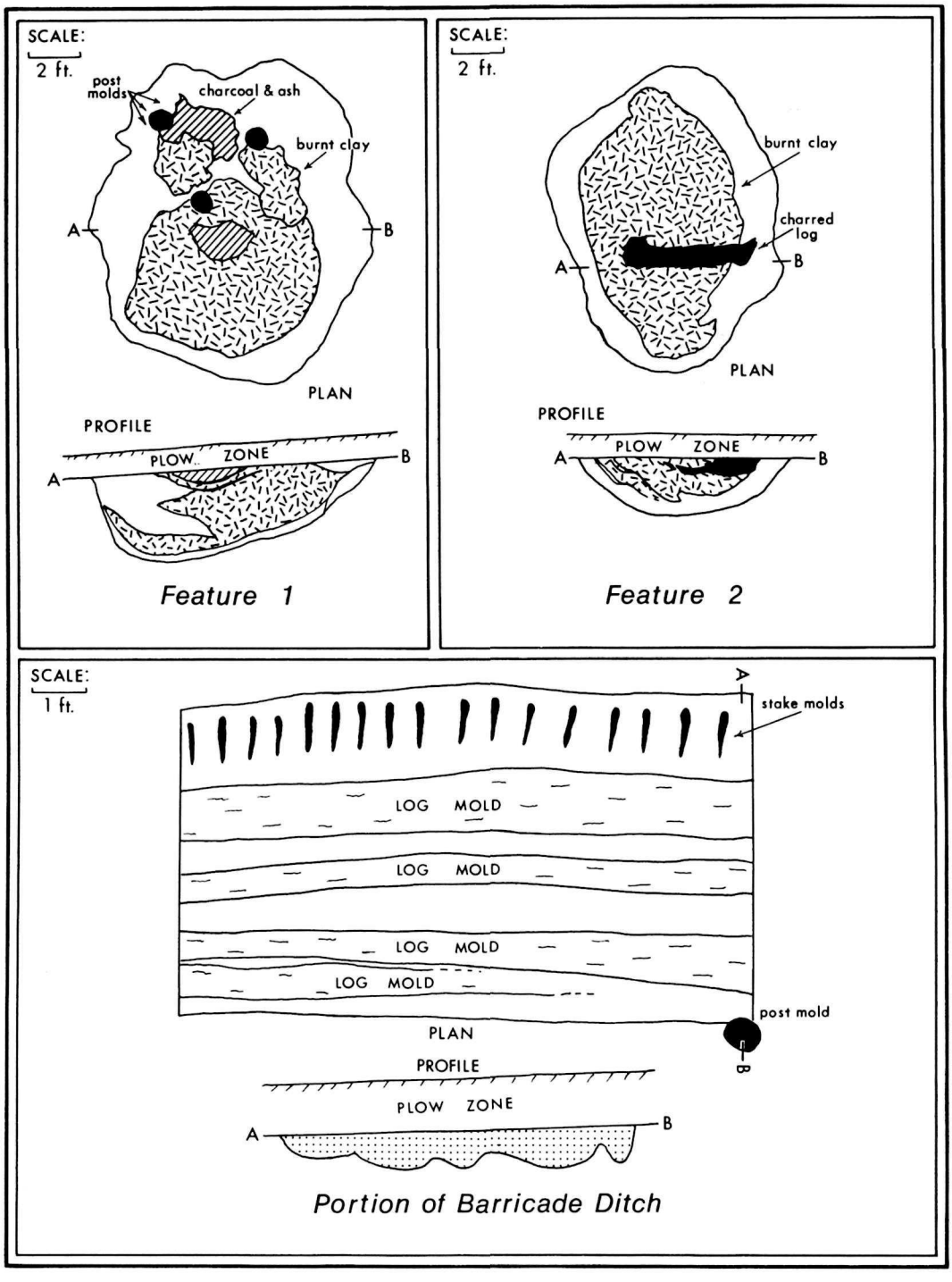

Figure 27. Features 1 and 2, and a Portion of the Barricade Ditch.

2 sherds, Ocmulgee Fields Burnished Plain
1 sherd, Ocmulgee Fields Incised
1 sherd, European Pearlware (plain)
1 sherd, green bottle glass
2 basal pieces of quartzite projectile points or knives
5 quartzite flakes
1 quartzite core
1 quartzite pebble hammer
1 piece of animal bone
1 piece of burnt clay

Postmolds

Thirty-four postmolds, or postmold-like features, were defined in the barricade area. Eleven of these, averaging 0.8 foot in diameter, appeared to be aligned along the south edge of the barricade ditch, with four on the east end being spaced at 10-foot intervals; the remaining 8 were irregularly spaced. The postmolds in front of the ditch formed no definite pattern. There were two postmolds within the ditch itself.

Features

Four large pits were discovered along the north margin of the barricade ditch. The three of these farthest to the east were excavated (Figure 30). In addition to these pits, all of which contained burned debris, the soil along the entire north margin of the barricade ditch showed evidence of having been burned.

Feature 1 measured 10 by 12 feet across the top and was 3.2 feet deep at the center (Figures 27 and 32). Its north wall was almost vertical, whereas the south wall sloped less steeply down from the edge of the barricade ditch. The fill in this pit consisted of sandy-clay and gravel (similar to the surrounding soil) in the bottom, and gray sand and sand mixed with burnt clay in the middle and upper portions (Figures 23 and 27). Near the top, there was a large amount of heavily burnt clay, sections of charred posts or logs, and pockets of charcoal and ash. At the center there was a concentration of fired clay, the largest pieces of which measured 0.9 foot long, 0.6 foot wide, and 0.4 foot thick (Figure 31). Several of these clay objects were wedge-shaped in cross-section, with slightly concave surfaces. Their appearance suggests they had been formed when clay was packed between logs which subsequently had burned, thus firing the clay. The rather jumbled arrangement of these pieces suggests that they had fallen into a depression in the top of Feature 1.

Feature 1 contained the following artifacts:

7 sherds, Ocmulgee Fields Plain
6 sherds, Ocmulgee Fields Burnished Plain
1 sherd, Ocmulgee Fields Incised
2 sherds, Chattahoochee Brushed
1 sherd, European Pearlware
1 sherd, bottle glass
3 quartzite flakes
1 fragment of greenstone earspool
1 quartzite pebble hammer
4 iron nails
Many fragments of charred wood
Many fragments of burnt clay
16 charred nut shells (probably hickory)
1 almost complete dog skull

Feature 2 was very similar to Feature 1 (Figures 27 and 30). It measured 8 to 11 feet across the top and was 2 feet deep at the center. It was basin-shaped in cross-section. As with Feature 1, this pit contained clay-and-gravel fill near the bottom and burnt clay and charcoal near the top. At the top, there also were several chunks of hard-fired clay and a 3-foot section of heavily charred log. Imbedded in the charred log was a small, quartzite projectile point or knife.

Feature 2 contained the following artifacts:

1 quartzite projectile point or knife
4 quartzite flakes
1 quartzite pebble hammer
2 iron nails
1 fragment of animal bone

Feature 3 was a pit of similar form to Features 1 and 2, although somewhat smaller (Figures 26and 30). It measured 6.5 by 9 feet across the top and was 1.8 feet deep at the center. The sides of the pit sloped to an irregular bottom. The fill was composed of clay-and-gravel and lensed gray sand in the lower portions, with burnt clay and a large concentration of charcoal at the top. No artifacts were found in this feature.

Feature 4 was an oval area of burnt clay, less clearly defined than the other three, located approximately 25 feet southwest of Feature 3 (Figure 26). It measured 7 by 9 feet across the top. Time did not permit the excavation of this feature.

Interpretations

There is little doubt that the above-described ditch, postmods, and pits are remains of the Indian barricade. The evidence for this

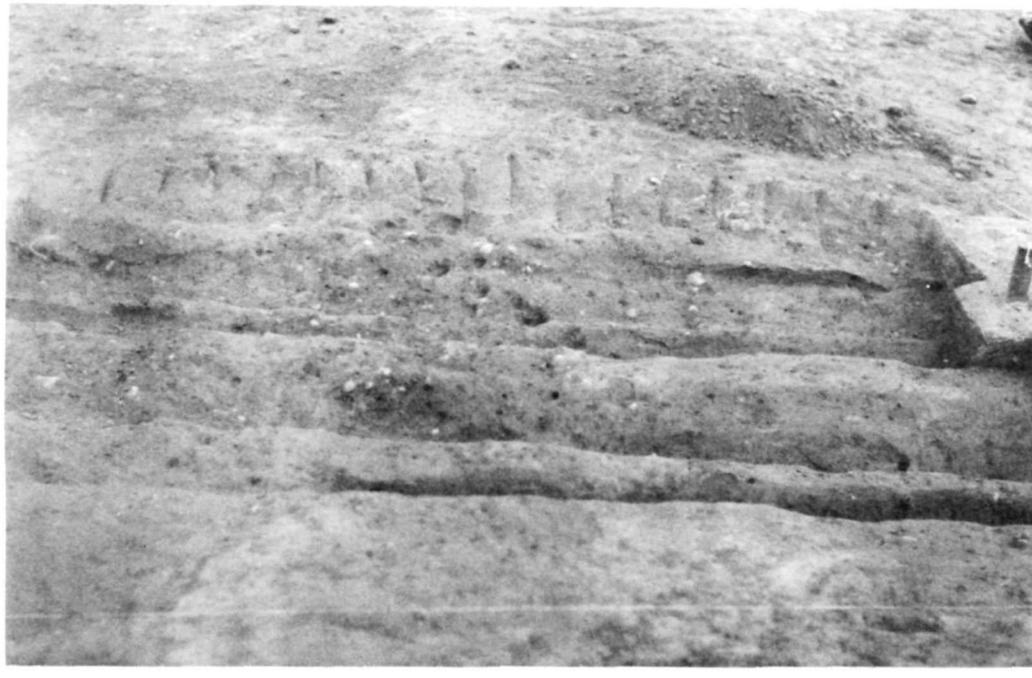

Figure 28. Portion of excavated Barricade ditch, showing log impressions and stake molds.

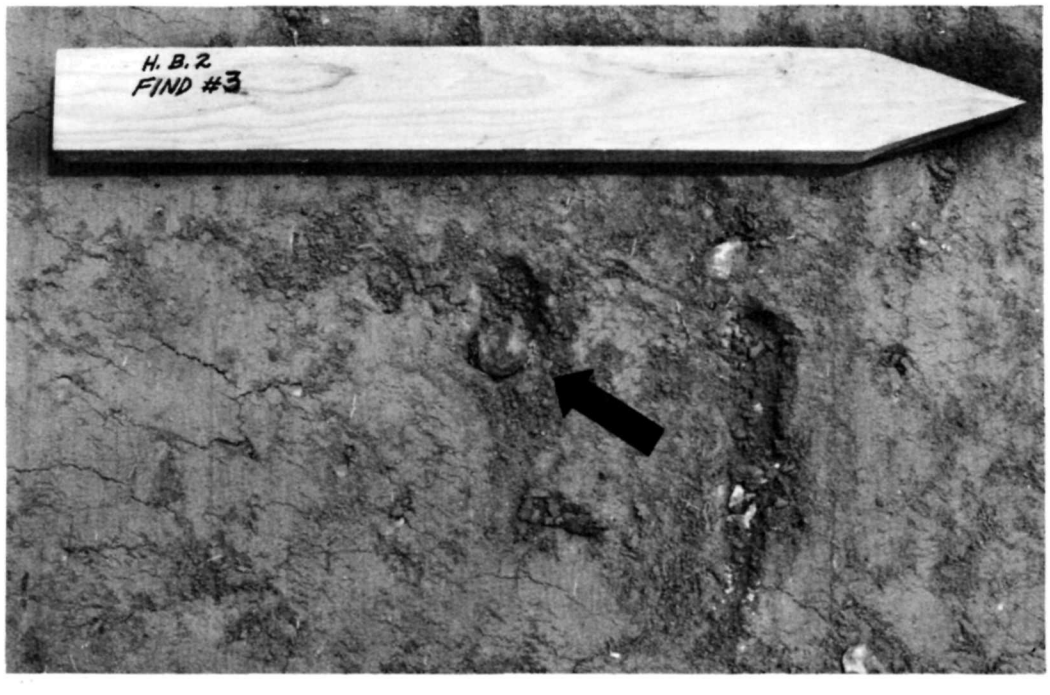

Figure 29. Iron grape shot in the fill of the Barricade ditch.

Figure 30. Portion of the Barricade ditch and Features 1, 2, and 3, following excavation.

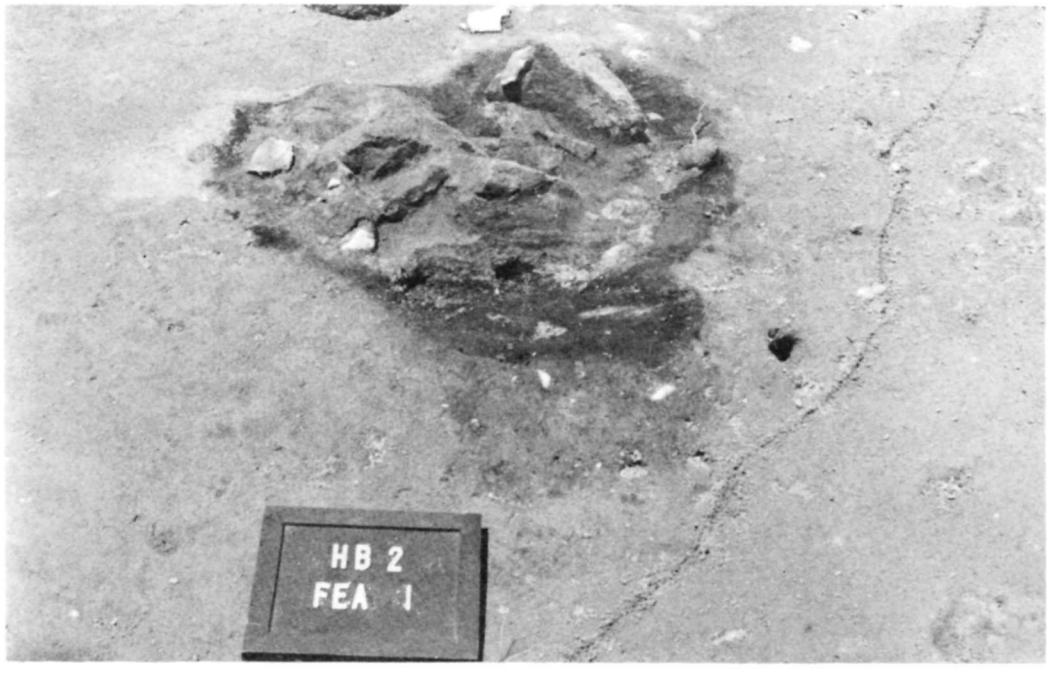

Figure 31. Concentration of burnt clay in Feature 1 at the Barricade site.

Figure 32. Feature 1 at the Barricade site, following excavation.

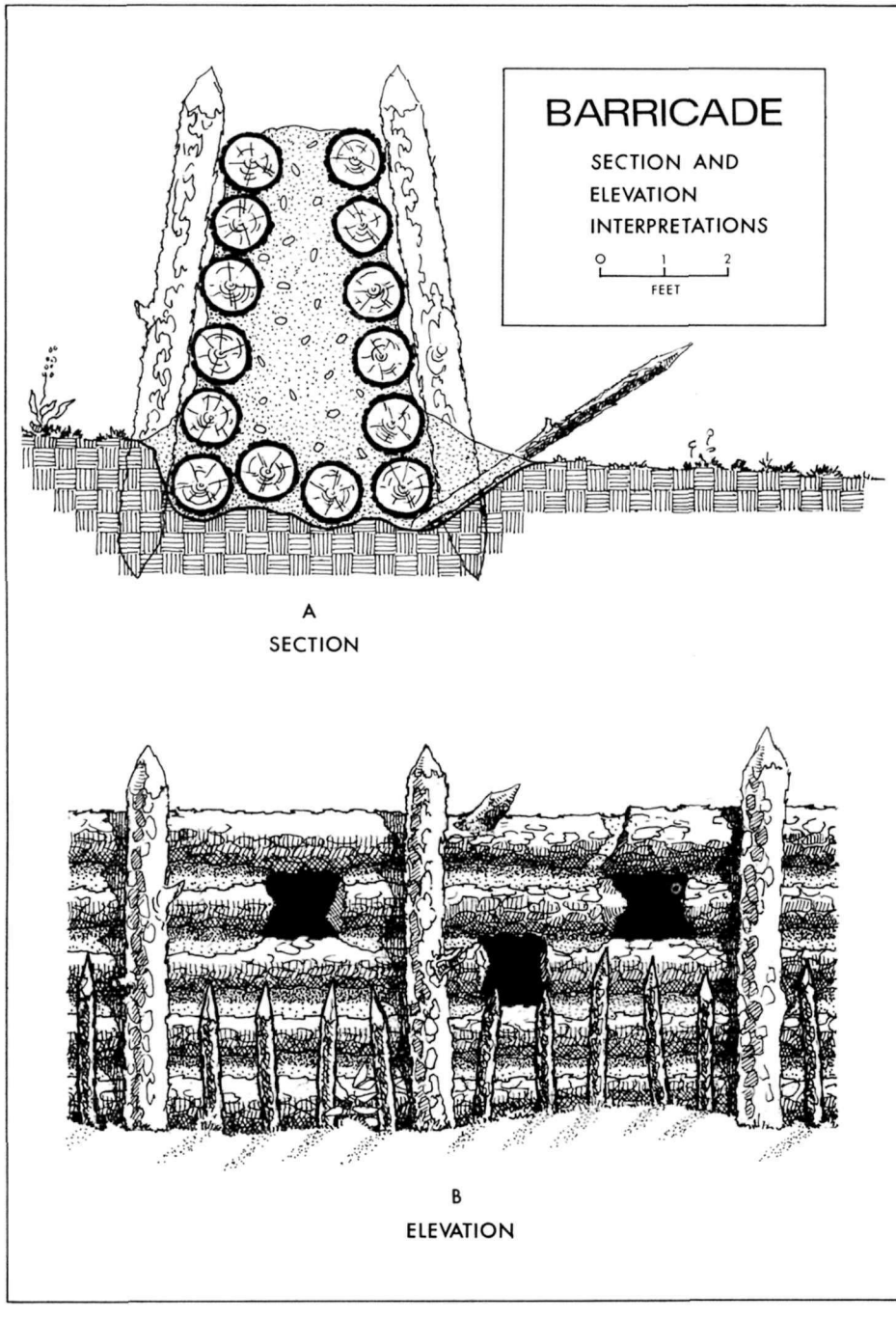

Figure 33. Section and Elevation Interpretations of the Barricade

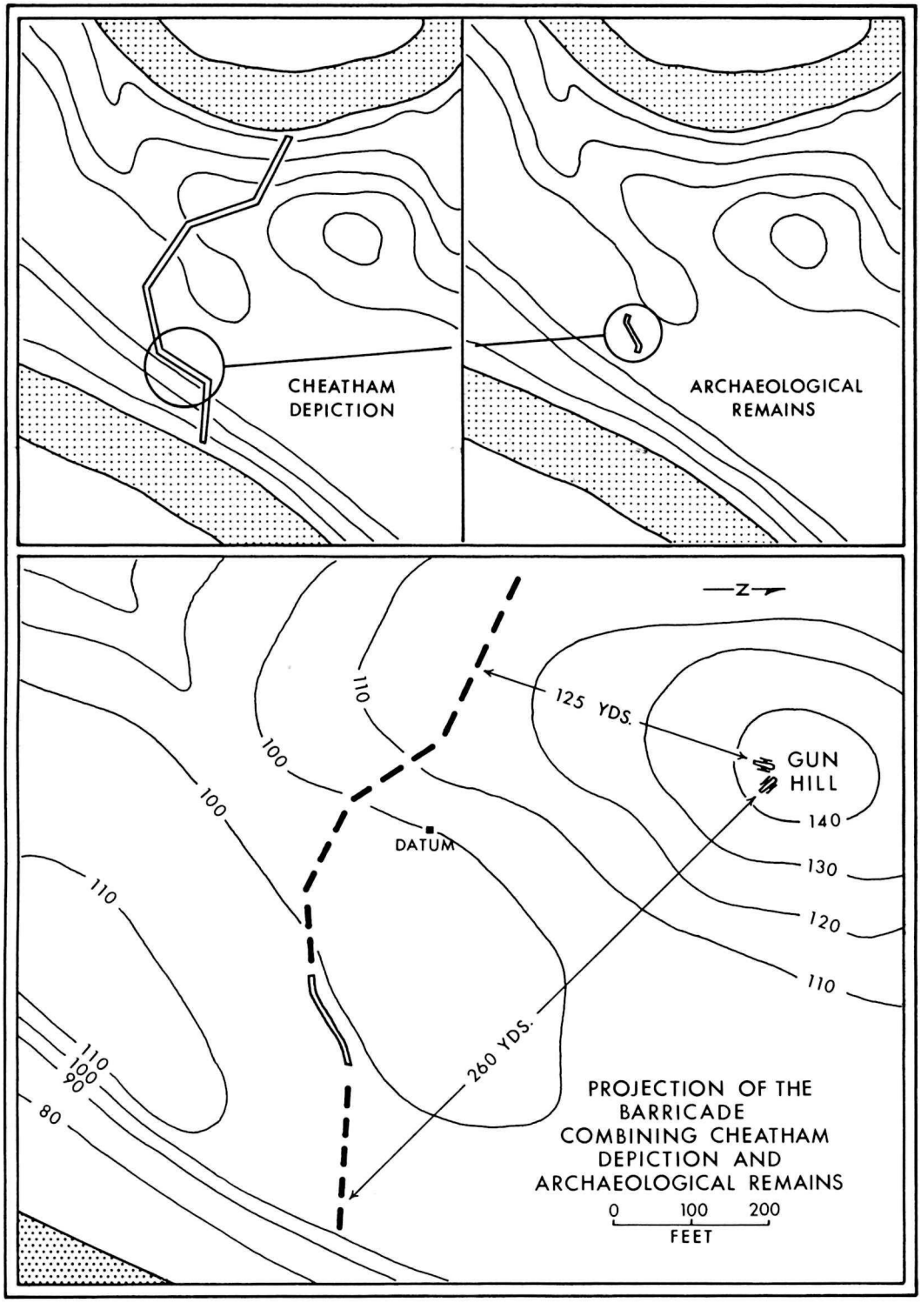

Figure 34. Comparison of Archaeological Remains and Cheatham's Depiction of the Barricade.

conclusion is listed as follows: (1) the general shape and orientation of the excavated features conform to the depictions of the barricade on contemporary maps, (2) the ditch contained the molds of horizontal logs as described in contemporary accounts, (3) military artifacts were found in a pattern associated with the features, (4) historic Creek pottery and stone artifacts were found in the features, and (5) there was considerable evidence of burning in the area of the features.

In his conjectural reconstruction, Mackenzie (1969:47-47b) proposed that the barricade had consisted of "a double row of timbers laid down horizontally, one upon another and parallel to each other." These rows of timbers, he thought, would have been "held in place as the fortification was raised layer by layer to full height."

Mackenzie's basic reconstruction is supported by the archaeological findings. To it, might be added: (1) the lowest tier of horizontal logs was embedded in a ditch to provide added support for the upper tiers, (2) the lower logs were paired, (3) wooden stakes were driven into the ground along the front of the ditch as crude chevaux-de-frise, and (4) clay fill for the barricade was obtained from borrow pits dug at intervals in front of the ditch, with these pits also serving as obstacles to the enemy (Figure 33).

Since the current surface on which these features were defined has probably been plowed and eroded at least two feet below the 1814 surface, one could speculate that the barricade ditch was originally about three feet deep. Many of the vertical support posts along the front and back of the barricade walls probably were shallow and have been lost to erosion. The existing evidence suggests, however, that these posts were spaced widely in some areas and closely in others, as the need required. The seemingly disarranged postmolds in front of the ditch cannot be explained at the present time.

The large pits presumably were borrow pits for clay used as fill between the log walls. The burned debris (charred logs, ash, and burnt clay) found in the upper portions of these pits provide convincing evidence that the barricade (or at least portions of it) was burned after the battle. The fired clay slabs in Feature 1 suggest that earth had been packed tightly between the logs, some of which fell forward into the partly open borrow pits.

The configuration of the ditch matches most closely the second section from the east end of the barricade on the Cheatham map (Figure 12). When the excavation plan and Cheatham's drawing are enlarged to approximately the same scale, the match is even more convincing (Figure 34, top). One then needs only to project, maintaining comparable scale, the missing portions to obtain a general indication of the relationship of the total fortification to the existing terrain (Figure 34, bottom). It is important that the distances of 85 and 250 yards, given by Jackson as the nearest and farthest points from his cannons to the barricade, match closely the measured distances of 125 and 260 yards from the summit of Gun Hill to the same points on the projected barricade.

CHAPTER III

TOHOPEKA VILLAGE SITE

The site of Tohopeka occupies about 20 acres in the toe of the river bend, 2500 feet southwest of the battle site (Figures 35 and 36). The terrain is low-lying and slightly rolling, with an average elevation of only 14 feet above the river. The soil consists generally of a loose sand that grades to a more compact sandy-clay at deeper levels.

Investigations at the Tohopeka site were carried out for the purposes of obtaining information on the pattern of settlement at the 1814 village and of locating and intensively excavating at least one house. Further, it was hoped that an assemblage of artifacts sufficient to interpret the material culture of the nativistic Red Sticks would be recoverd. Each of the above goals was only partly realized.

Background information for the work at this site came from scanty historical documentation and Fairbanks' 1961 excavations.

Historical Sources

Details on the settlement of Tohopeka are lacking in the contemporary descriptions. This could be expected, since the village was of low military significance compared with the barricade. The following are references from some of the more reliable sources:

Letter from Andrew Jackson to Thomas Pinckney, March 28, 1814 (Bassett 1926:489):

> A part of the Cherokee force, with Capt. Russell's Company of spies who had accompanied Genl. Coffee, Crossed over to the extremity of the bend in Canoes, and set fire to a few of the buildings that were there situated.

Report from General Coffee to General Jackson, April 1, 1814 (Niles' Weekly Register, April 30, 1814:148):

> About one hundred of the warriors and all the squaws [were] running about among the huts of the village, which was open to our view.

From The History of Alabama (Pickett 1851:341-342):

> The houses of the village stood upon some low grounds, at the bottom of the bend, where hundreds of canoes were tied to the banks of the river....They reached the town, and wrapped it in flames.

From The Life of Andrew Jackson (Reid and Eaton 1817:149-152):

> Surrounded almost entirely by the river, it [Tohopeka]

> was accessible only by a narrow neck of land, of three hundred and fifty yards width....The village stood on the margin of the river, and on that part of the peninsula most remote from the fortification....a considerable number [of friendly Cherokees] passed over, entered the town and fired it.

The three military maps depict Tohopeka Village in approximately the same manner. On Jackson's map (Figure 10), it is shown as 14 small triangles grouped in the toe of the river bend. The Coffee map (Figure 11) represents Tohopeka with approximately 50 small, irregular ovals arranged in rows in the toe of the bend. At the approximate center of this grouping, there is a larger five-sided figure which may represent a plaza or square ground. Coffee was stationed directly across the river from the village and probably had the best knowledge of it before it was burned. Cheatham's map (Figure 12) presents the village as 30 small square symbols arranged in five orderly rows in the toe of the bend. He gives as a key to these symbols: "represents Indian huts and village, all of which was new."

In summary, the historical accounts do not provide much information on the organization of the village or on the architecture of its structures. The map depictions all agree on the location and general limits of the settlement, but they vary on the number of houses. One is more inclined to trust Cheatham's map, since as a topographic engineer he would have been accustomed to presenting his information accurately. Cheatham shows 30 houses for a total population of about 1000 (this number is used since several hundred of the Okfuskee warriors arrived only a few days before the battle). This works out to about 33 persons to a house. Even if we increase the number of structures to 50, as on the Coffee map, there would have been 20 individuals per house.

Although the depictions on the maps were intended mostly to locate the village and not to precisely illustrate its plan, 30 to 50 houses is probably a reasonable number. The settlement was a new one, as documented by Cheatham, and not established for the same purposes as a peace-time village. Instead, it was a temporary warrior-and-refugee encampment, and its location, in what must have been frequently flooded ground, was entirely a defensive one. It is logical to conclude, therefore, that an impermanent settlement of primarily young men would not have conformed, in terms of general plan or habitation architecture, to a permanent settlement of nuclear families.

The above suggests that Tohopeka's habitations, called "buildings" or "huts" in the comtemporary sources, were larger-than-normal structures. Fairbanks' suggestion that "any dwellings were quite flimsy affairs" lacking the normal wall-post and daub construction also seems reasonable, considering the impermanent nature of the settlement. It is unlikely that a mud-plaster wall covering would have been used on

Figure 35. Aerial view of the Tohopeka Village site, looking southeast.

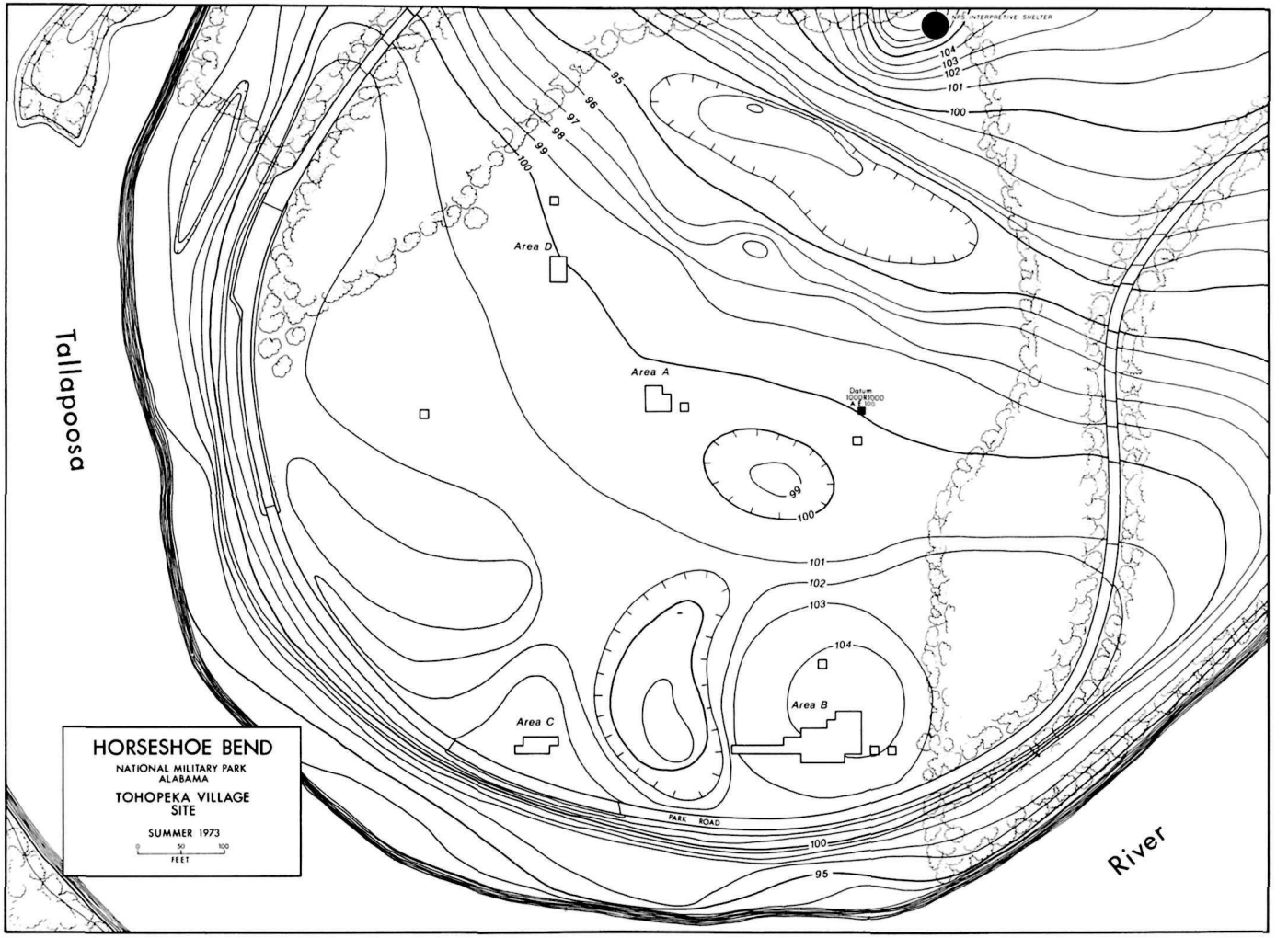

Figure 36. Contour Map of the Tohopeka Village Site.

impermanent buildings, but it also must be remembered that the Indians occupied this village in the winter and, therefore, would have needed fairly secure accomodations.

Prior Excavations

In his 1961 explorations, Fairbanks (1962a:4) determined that there were no archaeological remains along the east and west margins of the river bend. Through additional testing and surface inspection, he determined that the site was totally within the toe of the bend or "southern flats" (Fairbanks 1962a:4-5). Here, he excavated a total of 35 ten-foot squares "wherever open places in the trees and brush permitted."

Fairbanks (1962a:5-6) discovered that certain areas had been disturbed in modern times by river action, but that in other locations there appeared to have been little alteration since the time of the Creek occupation. Several of his test pits produced mostly historic Creek pottery sherds, while other pits contained large numbers of sherds from a prehistoric component which he called "Dadeville" (Fairbanks 1962a: Figure 3).

Following his excavations at Tohopeka, Fairbanks (1962a:21) concluded that "when the area is finally cleared, additional excavation would probably be rewarding in getting more precise information on the location and form of specific features....The present yield is small but would certainly increase with additional excavation."

1973 Investigations

In the period between Fairbanks' work and the 1973 investigations, park personnel had cleared most vegetation from the central portion of the site. The cleared section is widest in the southwestern portion of the bend, gradually becomes narrower across the village area, and finally terminates on high ground north of the site where the park has constructed an "interpretive shelter" (Figures 35, 36, and 37).

The terrain is relatively flat, although there are dips and rises of two or three feet in several locations. The lowest ground (partly filled during park construction) consists of a natural slough that cuts across the bend along the northern margin of the site. This and other low areas (those below the 100-foot contour on Figure 36) are flooded during periods of heavy rain. The river is presently depositing alluvium on the interior of the bend and cutting the exterior banks.

Prior to the 1973 excavations, the field crew was utilized to make a systematic surface collection over the site. It was found that there was little material showing on most of the site, which probably can be

attributed to its accessibility to visitors and vulnerability to erosion. However, several areas of moderate artifact density were noted.

During this initial phase of work, a permanent datum (1000R1000) was established just east of the center of the cleared area, and coordinates for an excavation grid were set up. A plane table map of the site also was begun at this time. Utilizing north-south and east-west coordinates, 100-foot squares were staked off over most of the cleared area. Smaller excavation units then could be established simply by pulling tapes within the 100-foot squares. An effort also was made to tie the current grid into the map of the 1961 excavations. This, however, could not be accomplished with much accuracy since Fairbanks did not establish a permanent datum (Fairbanks 1962a:Figure 2).

Initially, nine 10-foot squares were excavated in the north (two squares), west (one square), central (two squares), east (one square), and south (three squares) portions of the cleared area. These units were placed in locations that had produced the largest amounts of surface artifacts. They were also positioned at or above the 100-foot contour, since it was obvious that lower areas of the site had been severely disturbed by river erosion.

Some important information was obtained from these tests. For example, subsurface conditions over the site were found to be quite variable. The northern-most test, western-most test, and the test just south of the datum all revealed very complex soil profiles (Figure 38 and Figure 40, bottom). In these areas river action had created successive layers of sands and silts, covering old humic and plow zones, and eventually sterile sandy-clay subsoil. These profiles matched closely situations reported by Fairbanks (1962a:5), which he described as layers of "laminated riverine silt" and "cross-bedding," evidence of "a rapidly running and fiercely flooding river." In these areas, it was obvious that there had been sequential scouring and redeposition, and in many cases the burial of not-too-old surfaces.

In other tests, the soil profiles indicated long-term surface stability. They exhibited a shallow plow zone and humus, containing most of the artifacts, beneath which there might be a thin remnant of midden (Dadeville), and below that a loose, culturally-sterile sand that gradually graded to a compact sandy-clay subsoil (Figure 39 and Figure 40, top). These areas, all above the 100-foot contour, also contained the largest numbers of artifacts related to the historic Creek occupation. Fairbanks (1962a:5) described these same areas: "The fact that the sherds occurred in the same zone as the humic material strongly suggests that there has been no extensive erosion or major deposition since Indian times."

In addition to the historic materials, the less eroded areas also produced artifacts of an obviously older component. These older

Figure 37. View of the Tohopeka site looking southwest from the interpretive shelter.

Figure 38. West profile of square 990R500 at Tohopeka, showing layers of alluvial deposition and older surfaces.

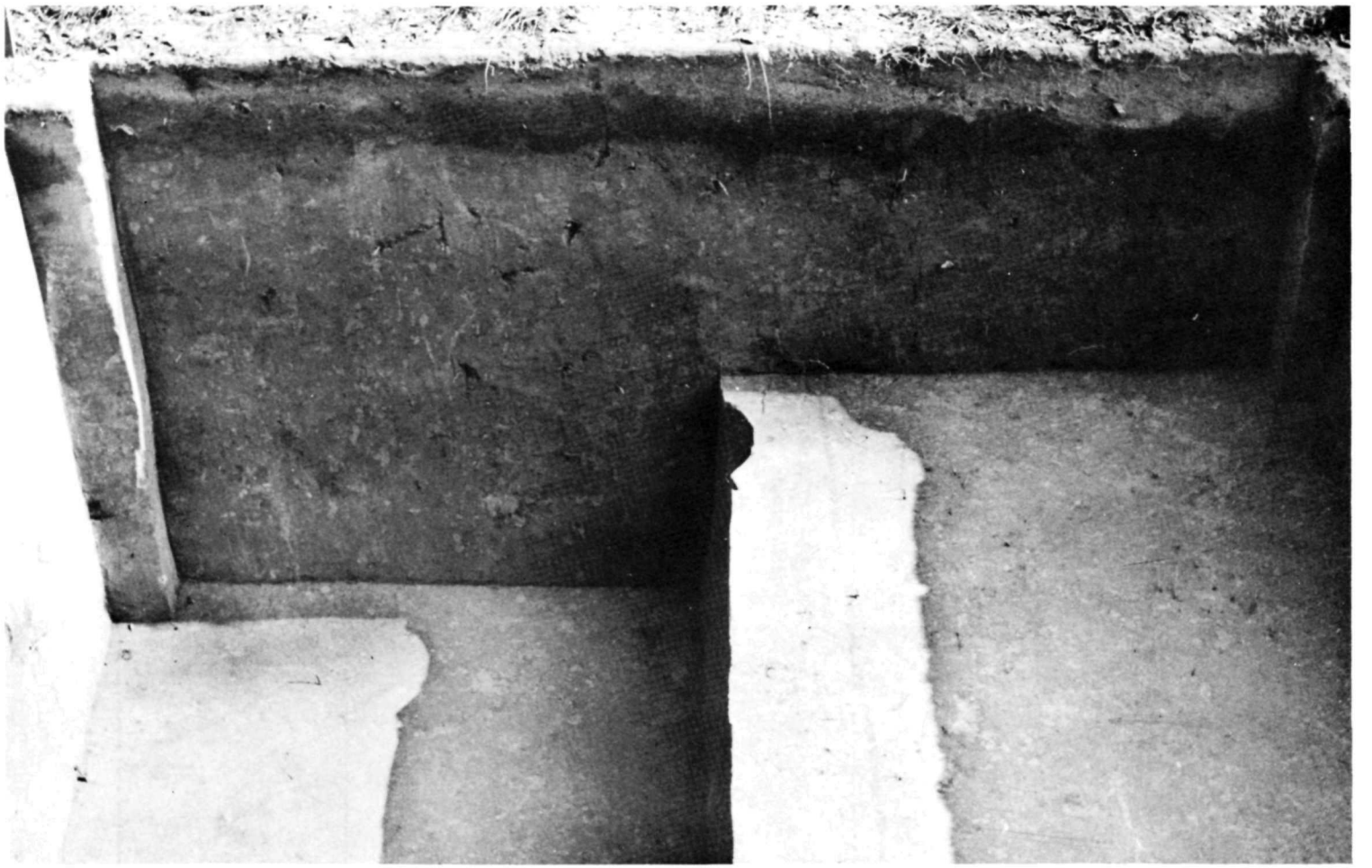

Figure 39. North profile of square 700R960 at Tohopeka, showing a stable land surface under a shallow plow zone and humus.

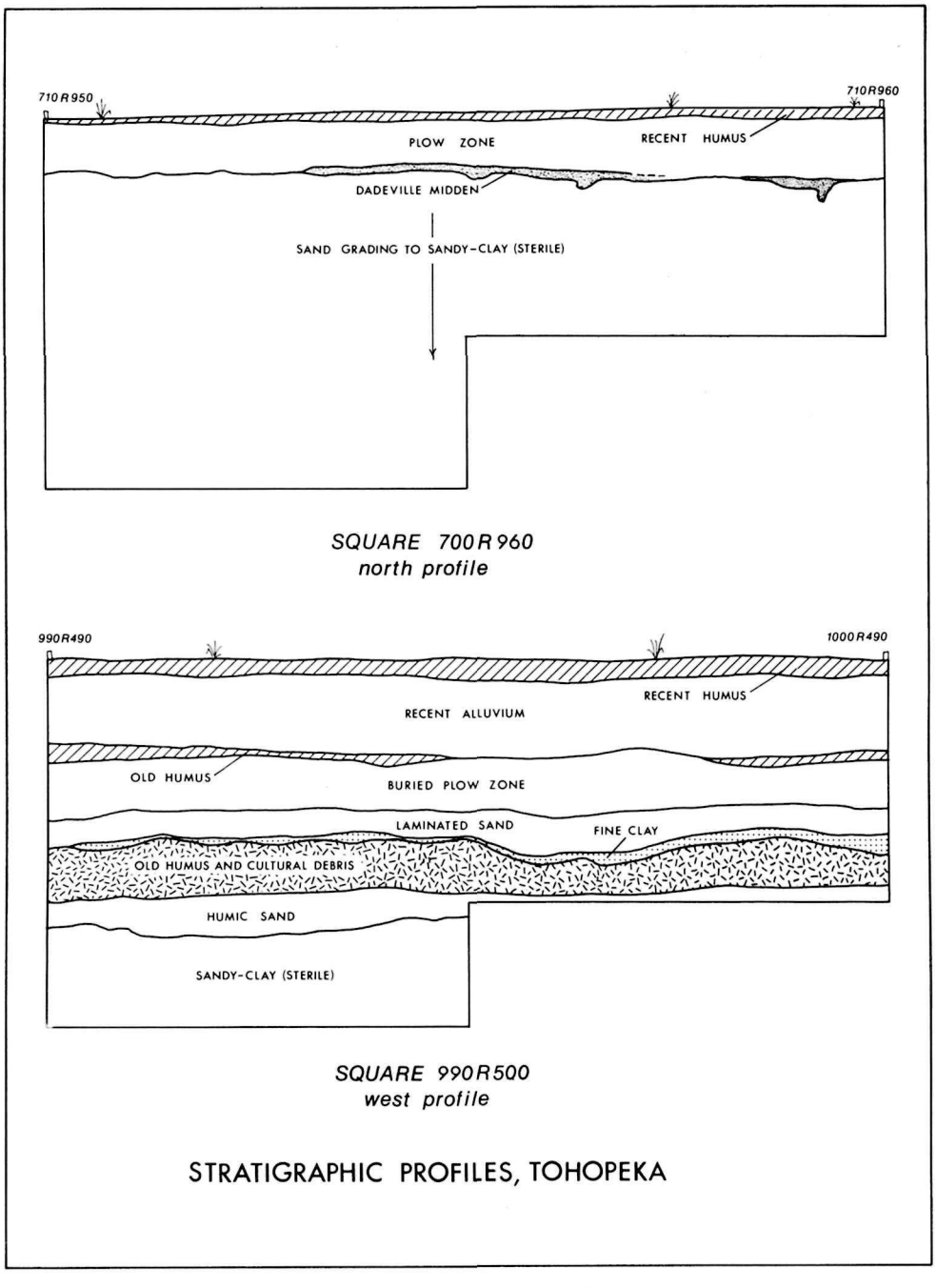

Figure 40. Profiles at the Tohopeka Site, Showing Stable Surface (Above), and Disturbed Surface (Below).

remains usually were found in the lower portions of the plow zone or in thin scraps of underlying midden. Again, Fairbanks had observed this same situation. He stated (Fairbanks 1962a:9):

> Stratigraphically, there was a very slight preponderance of the Creek complex in the upper six inches, and of the Dadeville complex in the lower levels. This stratigraphic separation, along with evident differences in manufacture lead me to believe that the Dadeville types represent an earlier occupation. I believe the two occupations of the site were separated by a considerable time, perhaps as much as four hundred years.

Excavations were expanded in three of the areas where a stable surface and larger numbers of historic Creek sherds were in evidence (Figure 36). These were labeled Areas A, B, and D. Excavations were also expanded in Area C, an elevated piece of ground in the southern most extremity of the bend, determined to be the approximate location of Fairbanks' test pits 12, 13, 16, and 17 (1962a: Figure 2), where he found large numbers of Dadeville sherds.

Excavation Areas

Area A

This area (Figures 41 and 43) consisted of nine ten-foot squares excavated in the vicinity of two of the initial stratigraphic tests (1000R760 and 1000R800). The profiles in this area consisted of a 0.6-foot thick plow zone, underlain by a thin humic layer that was relatively rich in artifacts. Beneath the humic layer, laminate sands (containing scattered artifacts) graded to a homogeneous sandy-clay that was culturally sterile.

The dark, artifact-bearing layer at the base of the plow zone seemed to form a slight depression that was deepest to the west (Figure 44). It was at first thought that this depression might represent a house floor. It was later concluded, however, that its shape and soil consistency were more suggestive of an erosional feature. A number of dark stains, some of which may have been post molds, also were observed in Area A. One large disturbance in square 1000R800, disignated Feature 2, is described below.

Feature 2 (Figures 42, 44, and 45) was a roughly circular pit that measured 6.3 feet in diameter and 3.1 feet deep at the center. Its sides sloped gradually from the top to a depth of about two feet, where they dropped vertically to the floor of the pit. The fill of this pit was stratified, with numerous lenses of fine, laminated silts. Artifacts contained within the pit, most of which were found near the bottom, belonged to the Dadeville component. This feature may have been food storage pit that was left open on abandonment, gradually

Figure 41. Excavating a test square at Tohopeka.

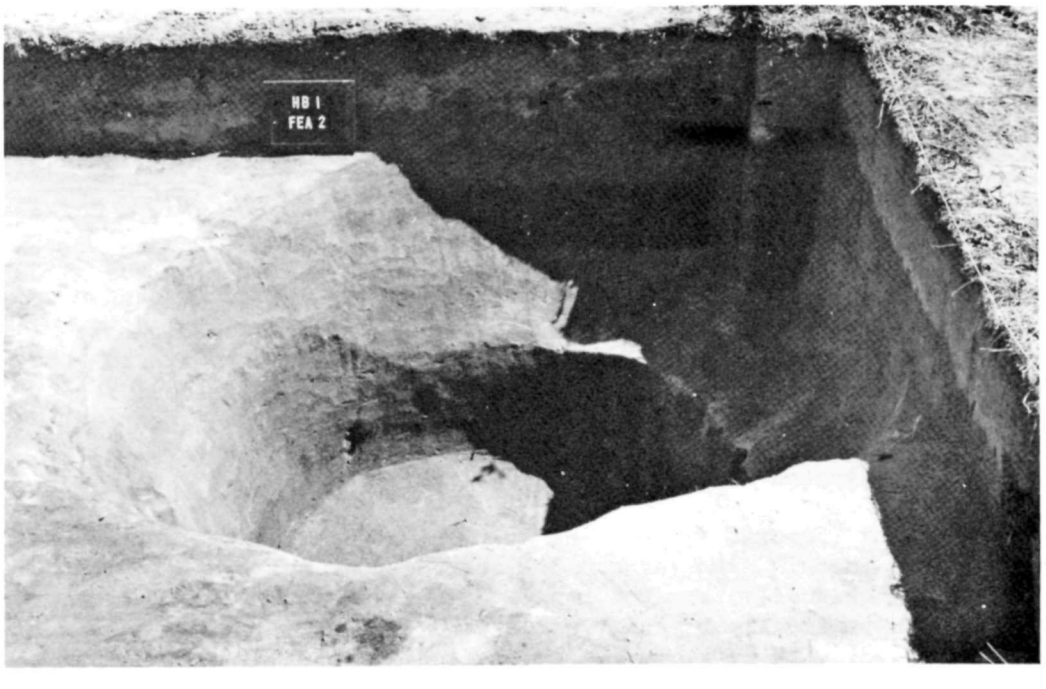

Figure 42. Feature 2 in Area A at Tohopeka.

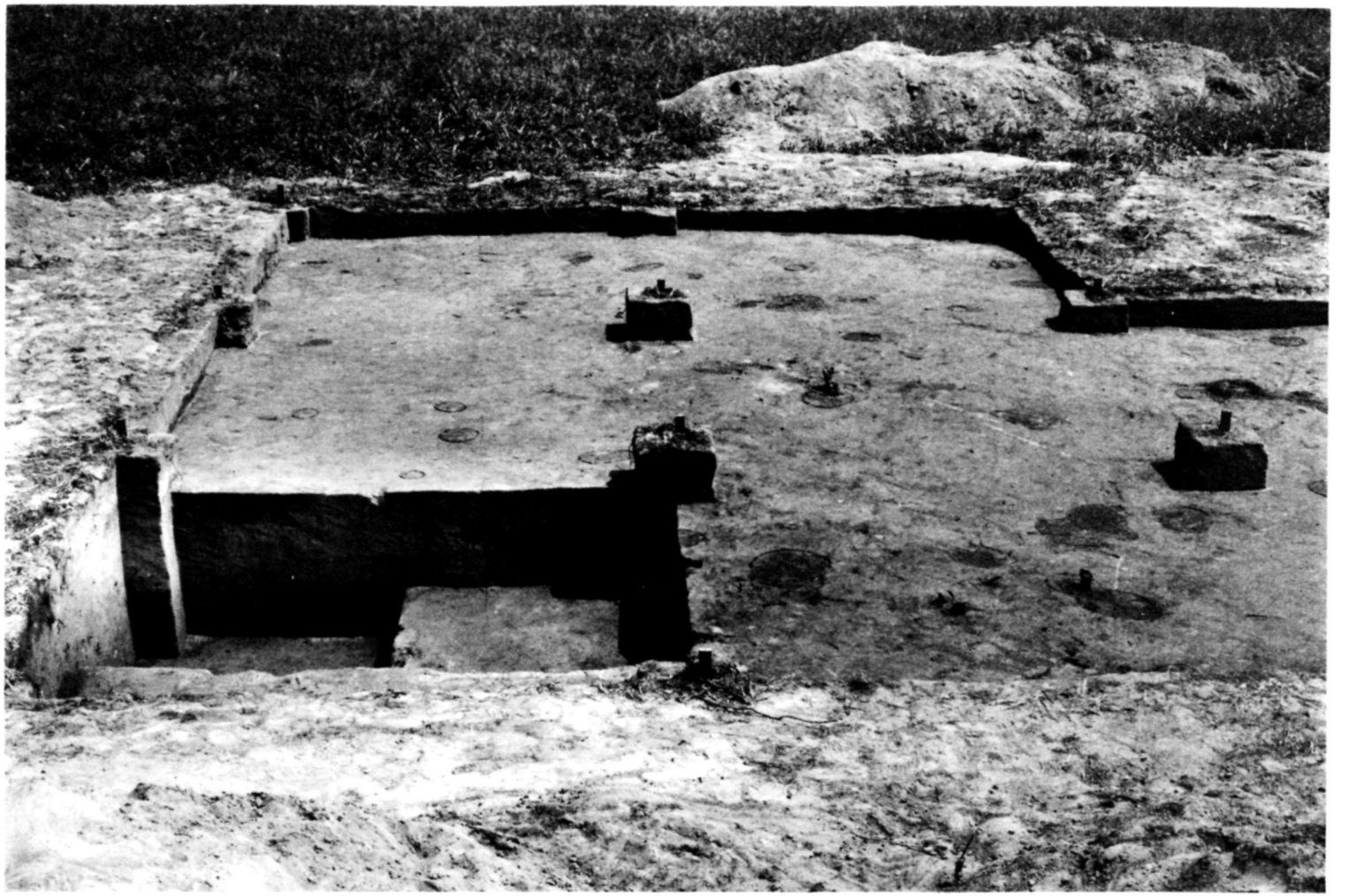

Figure 43. Completed excavation in Area A at Tohopeka.

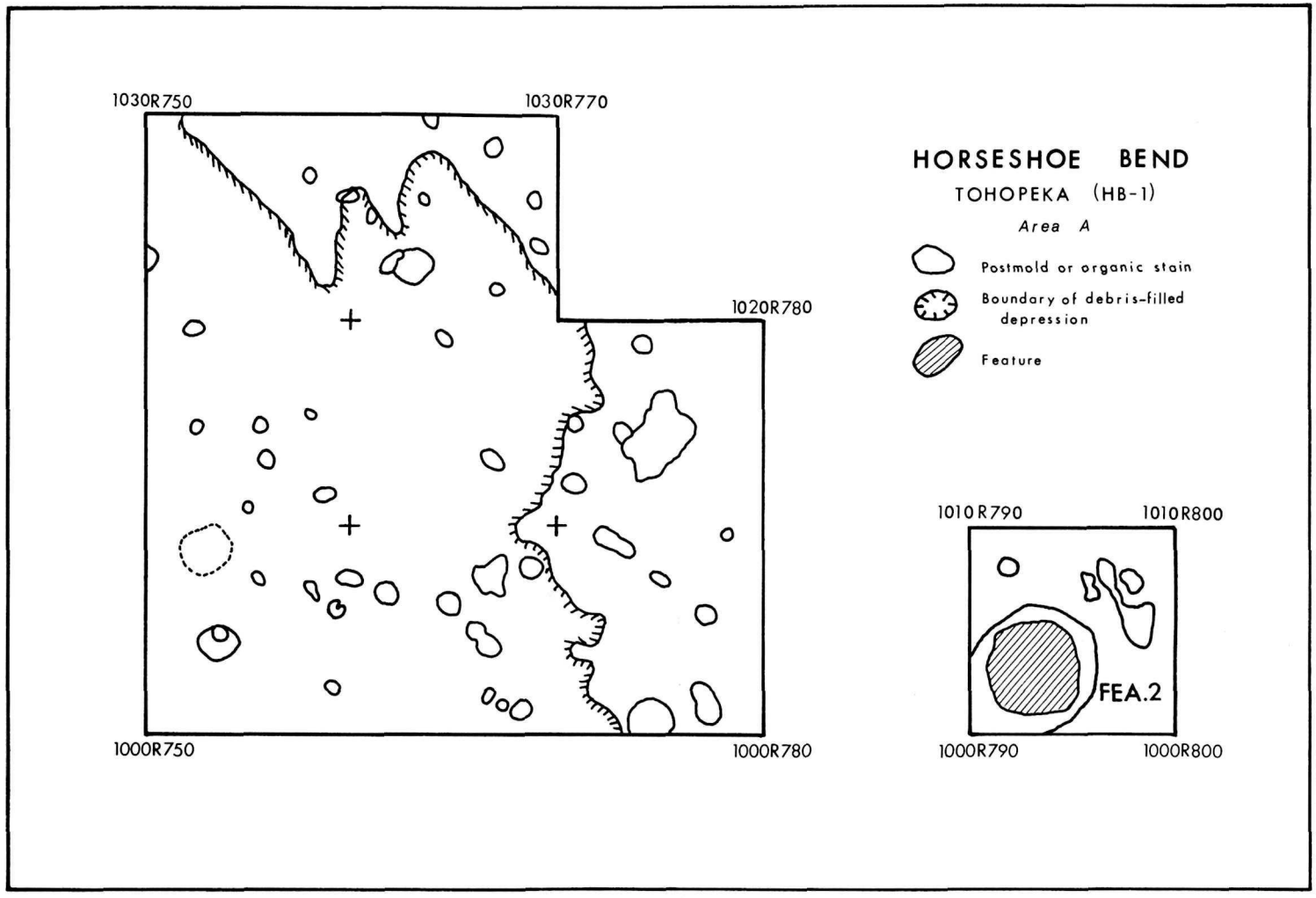

Figure 44. Plan of Excavations in Area A at Tohopeka.

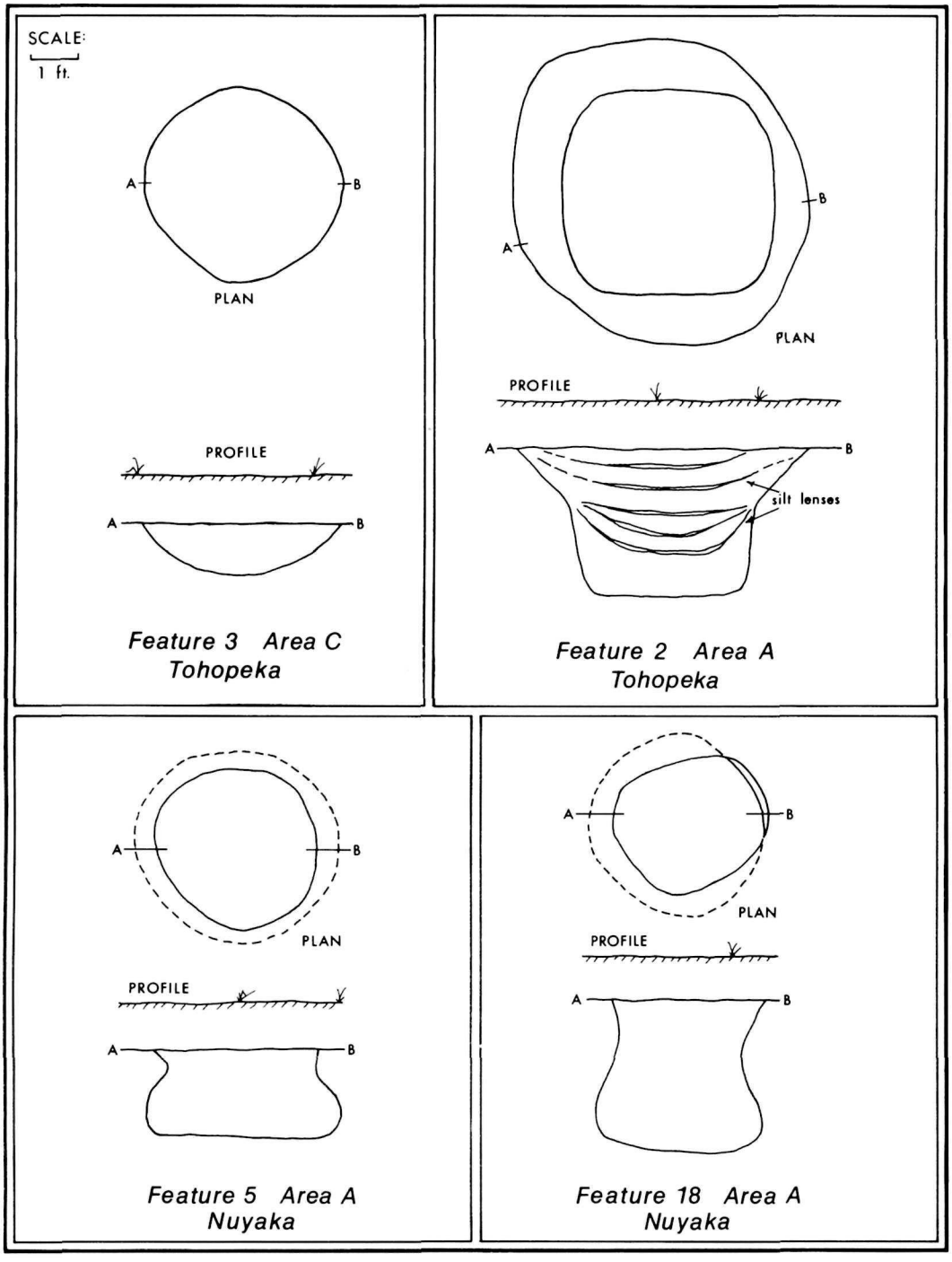

Figure 45. Dadeville Features at Tohopeka and Nuyaka.

filling with cultural debris and washed-in soil. The artifacts consisted of 173 sherds of Dadeville Plain, one sherd of Dadeville Punctated, a sylindrical soapstone bead, and a double-pitted anvilstone.

Area B

Two test squares (600R950 and 700R960) in the extreme south side of the bend, on what seemed to be the highest ground on the site, yielded a relatively large number of sherds, including several large Ocmulgee Fields sherds from the historic Creek occupation. From these findings, a decision was made to expand excavations in this area (Figure 36). Initially, a ten-foot-wide trench was opened along the 600 line, beginning on the edge of an erosional depression at grid point 600R850 and extending east for 190 feet (Figure 46). A number of historic sherds and trade artifacts were found in the central portion of this trench.

Next, a series of squares was opened to the north of the 600 line in an attempt to trace the extent of the historic Creek material. Only one additional row of squares was opened to the south, however, as several large tress and the right-of-way of the park road prevented further expansion in that direction. The excavations in Area B finally totaled 46 ten-foot squares (Figures 48 and 49).

A number of postmolds (and postmold-like features) were encountered at the base of the plow zone in Area B. These were most numerous in the central part of the excavations, bounded roughly by grid points 600R910, 590R930, 620R910, and 620R940, and the northeast part of the excavations, bounded roughly by grid points 630R970, 620R1000, 650R970, and 650R1000 (Figure 47). No evidence of floors or hearths was found.

The question of whether these postmolds could have resulted from building activities during the historic Creek occupation was approached through an examination of artifact content. Approximately 100 of the 266 postmolds recorded in Area B were excavated. Of these, 16 contained a total of 30 potsherds. All of the 30 sherds were Dadeville. Additionally, none of the larger features in Area B could be attributed with certainty to the historic Creek occupation. All of this suggests that few, if any, of the postmolds or other features in Area B were products of the Tohopeka settlement.

When the densities of historic Creek artifacts were plotted on a grid of Area B (Figure 50), it became obvious that the greatest numbers of these artifacts were not found in the same squares with the greatest numbers of postmolds. There was, however, a direct correlation between the distributions of Ocmulgee Series sherds and European trade goods (Figure 50, middle and bottom). Both tended to cluster in the south-central portion of the excavations, in the area bounded roughly by grid points 590R930, 620R930, 630R980, and 590R980.

Figure 46. Exploratory trench in Area B at Tohopeka.

Figure 47. Postmolds in the northeast portion of Area B at Tohopeka.

Figure 48. Completed excavations in Area B at Tohopeka.

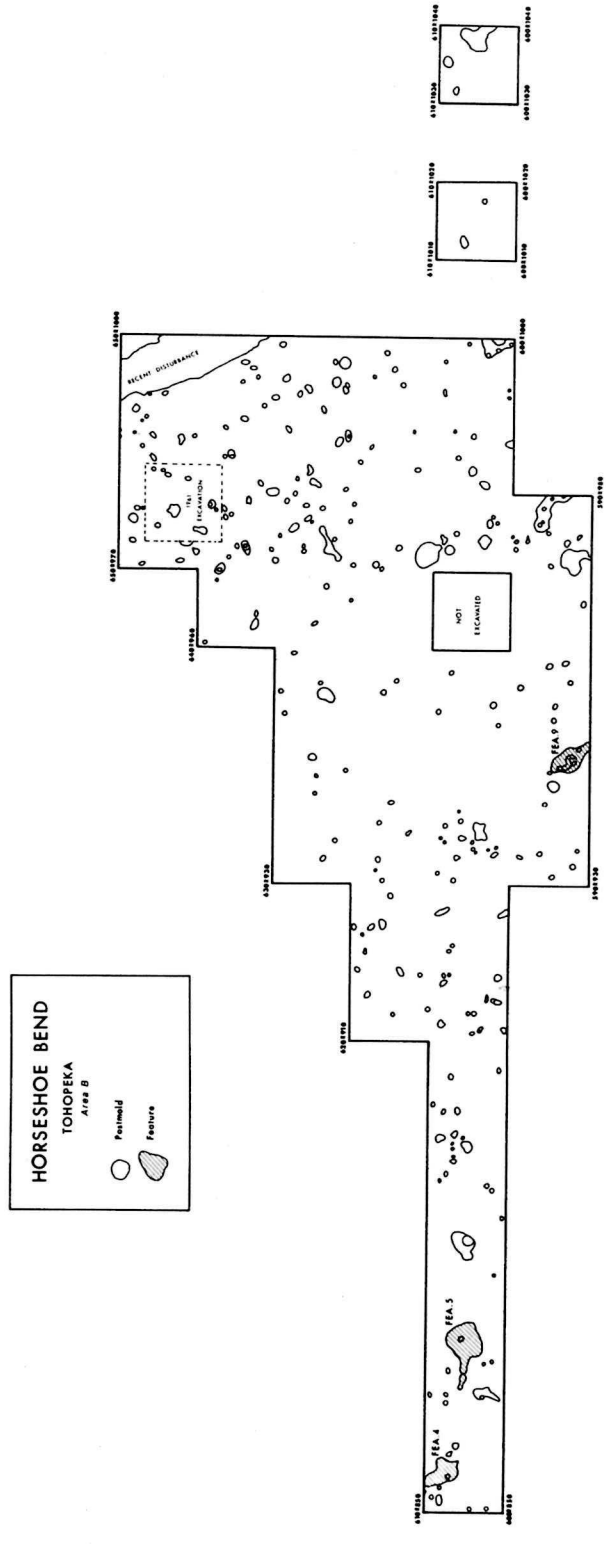

Figure 49. Plan of features and postmolds in Area B at Tohopeka.

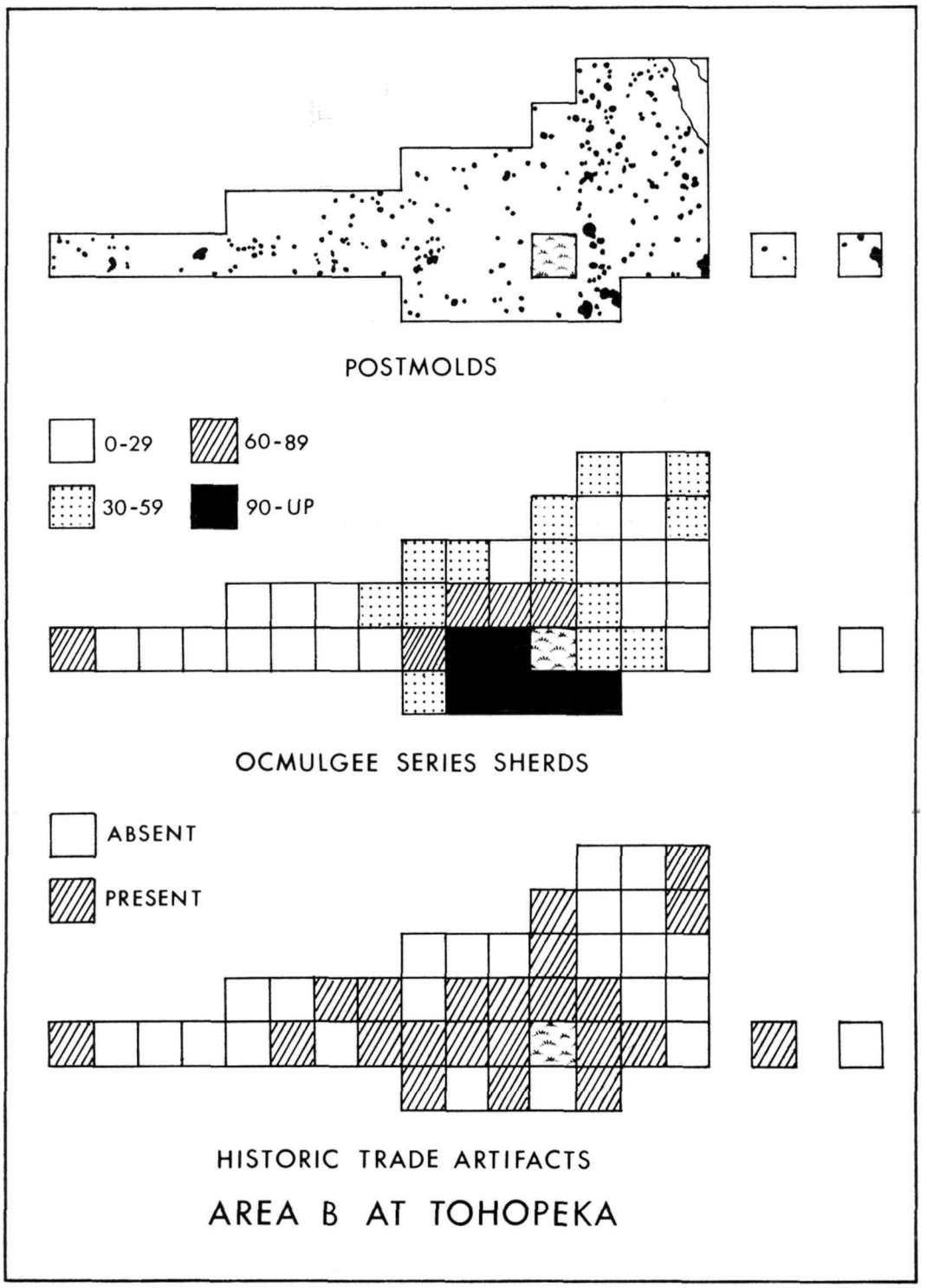

Figure 50. Comparisons of Distributions of Postmolds, Ocmulgee Series Sherds, and Historic Trade Artifacts in Area B at Tohopeka.

Figure 51. Feature 5 in Area B at Tohopeka.

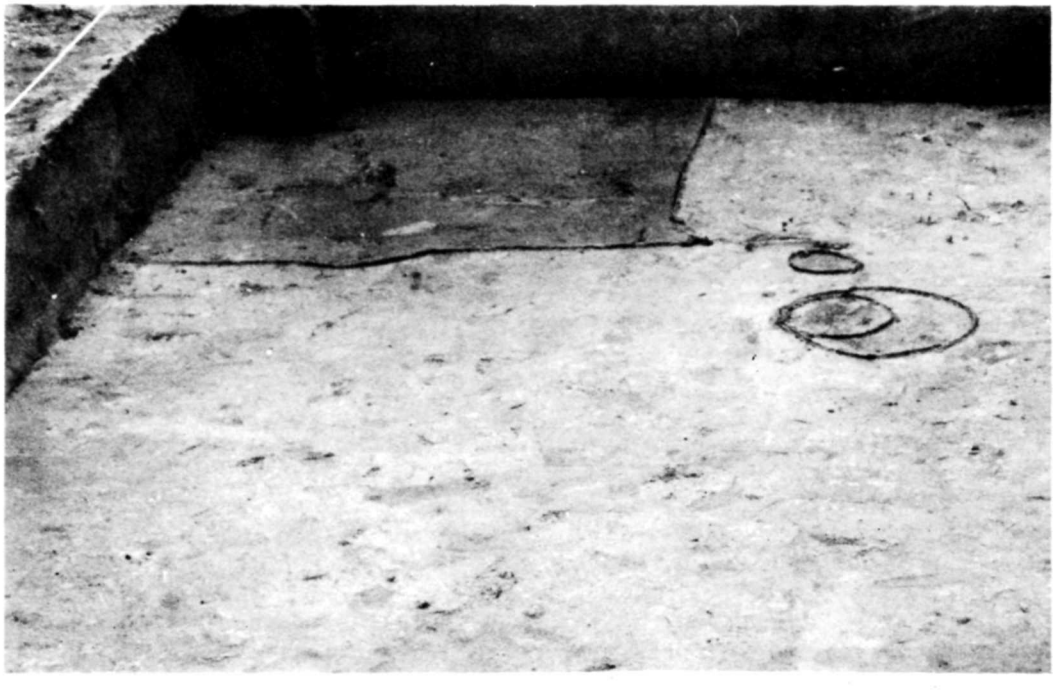

Figure 52. Corner of one of Fairbanks' test pits discovered in Area B.

Although the work in Area B did not produce direct evidence of house architecture, it did establish the possibility of delineating house locations through differential distributions of historic period artifacts. Given the short duration of occupation, this would be a possible method of reconstructing the village plan. It would, of course, require careful and systematic excavation of most of the area within the river bend.

Six features were found in Area B. Feature 1 consisted of a patch of midden located just below the plow zone in square 700R960. This feature, irregular in shape, measured 4 by 8.6 feet across the top and 0.4 foot thick at the thickest point. It contained a concentration of charcoal, 74 sherds of Dadeville Plain, Five sherds of Ocmulgee Fields Plain, and three sherds of Chattahoochee Brushed.

Feature 4 was a shallow basin-shaped pit located in the west end of Area B. It measured 3.2 by 5.2 feet across the top and was 0.4 foot deep at the center. It contained gray sand fill along with seven sherds of Dadeville Plain, three sherds of Ocmulgee Fields Plain, and two sherds of Chattahoochee Brushed.

Feature 5 (Figure 51) was a shallow, nearly circular, basin-shaped pit located near the west end of Area B. It measured 4.4 by 4.6 feet across the top and 0.6 foot deep. The pit fill contained charcoal, numerous river pebbles, 25 sherds of Dadeville Plain and two sherds of Ocmulgee Fields Plain.

Feature 8 (Figure 52) was encountered at the base of the plow zone in the northern portion of Area B. It consisted of a straight-sided, shallow depression that extended approximately 0.2 foot below the plow zone. It measured 9.6 by 9.8 feet, with the corners meeting at right angles and with the sides oriented north-south and east-west. The dark, homogeneous gray fill contained only two small Dadeville Plain sherds. This feature definitely represents the back-filled remains of one of Fairbanks' test pits, the only evidence of his excavations that was encountered in the 1973 work. By superimposing our site map over Fairbanks' "Key Map" of Tohopeka (1962a: Figure 2), it was possible to determine that Feature 8 represented the remains of either his Pit 7, 10, or 11.

Feature 9 a shallow depression located in the southern part of Area B, measured 2.6 by 5.2 feet across the top and 0.4 foot deep at the center. The fill consisted of charcoal-laden sand in which there were four sherds of Dadeville Plain, two sherds of Dadeville Brushed, and four sherds of Chattahoochee Brushed.

Feature 10, located in the northeast corner of Area B, was an erosional ditch, probably created by recent river action. The ditch extended for 20.4 feet across the northeastern limits of excavation; it was 1.1 feet deep at the deepest point. The fill consisted of gray

sand mixed with lensed sand and clay. It contained 70 sherds of Dadeville Plain, eight sherds of Ocmulgee Fields Plain, eight sherds of Chattahoochee Brushed, and one piece of scrap brass.

Area C

Eight ten-foot squares, designated as Area C, were excavated on a low rise of ground adjacent to the park road and 300 feet west of Area B (Figures 36 and 53). It was in this general location that Fairbanks (1962a: Figures 2 and 3) had found abundant evidence of the Dadeville component. The 1973 excavations revealed a shallow plow zone overlying a loose, tan sand, below which there was a gradually more compact sand grading to a sandy clay substratum. Artifacts were restricted to the plow zone and to thin patches of underlying midden. Ceramics in this area were overwhelmingly of the Dadeville Series, and there was little evidence of the historic Creek occupation. There were a few scattered post molds in Area C, along with three features (Figure 54).

Feature 3 (Figures 45 and 54), located in the central part of Area C, was a circular, basin-shaped pit belonging to the Dadeville component. The pit measured 3.8 feet in diameter and was 1.1 feet deep at the center. The dark gray fill contained 14 Dadeville Plain sherds, several of which belonged to the same vessel.

Feature 6 (Figures 54 and 55) was located ten feet north of Feature 3. It was an oval, basin-shaped pit that measured 2.8 by 3.2 feet across the top and 0.9 foot deep at the center. A dark, charcoal-laden fill contained four sherds of Dadeville Plain, and a bi-pitted anvilstone.

Feature 7 (Figures 54 and 56) was located six feet northeast of Feature 3. It was a small oval pit that measured 1.6 by 2 feet across the top and 1.2 feet deep at the deepest point. The west side of this pit sloped gently, while the east side was nearly vertical. The fill contained scattered bits of charcoal along with seven sherds of Dadeville Plain.

Area D

Area D (Figures 36 and 57) consisted of six contiguous squares located approximately 200 feet northwest of Area A, where several Ocmulgee Fields sherds had been found during the initial surface survey. The soil stratigraphy consisted of a shallow plow zone overlying loose sand that graded to a more compact sandy-clay. Disturbances recorded at the base of the plow zone included several scattered postmolds, a single pit (Feature 11), and three linear burned depressions (Figure 58).

Feature 11 (Figures 58, 59, 60, and 67) was a shallow, oval pit

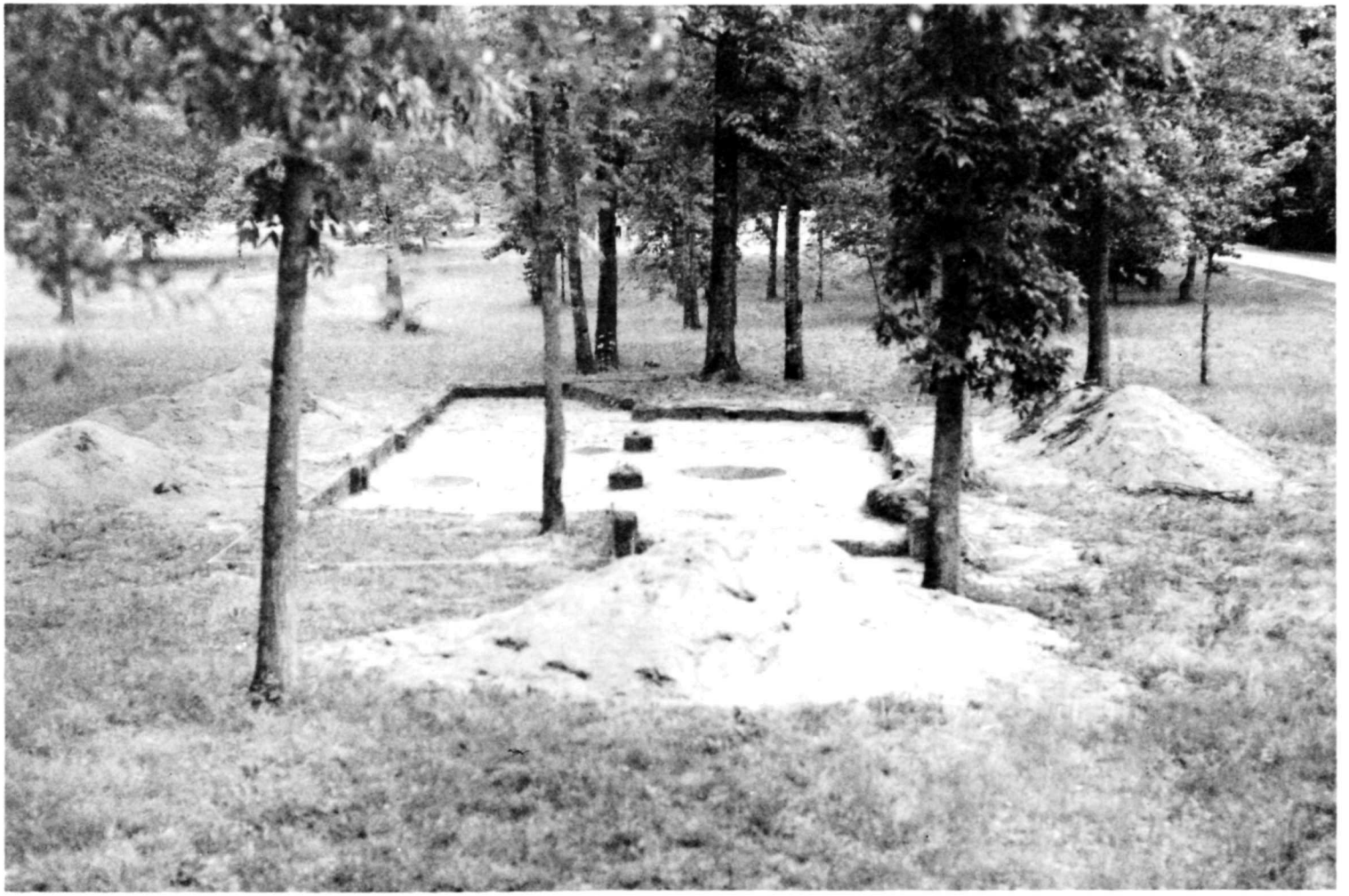

Figure 53. Completed excavations in Area C at Tohopeka.

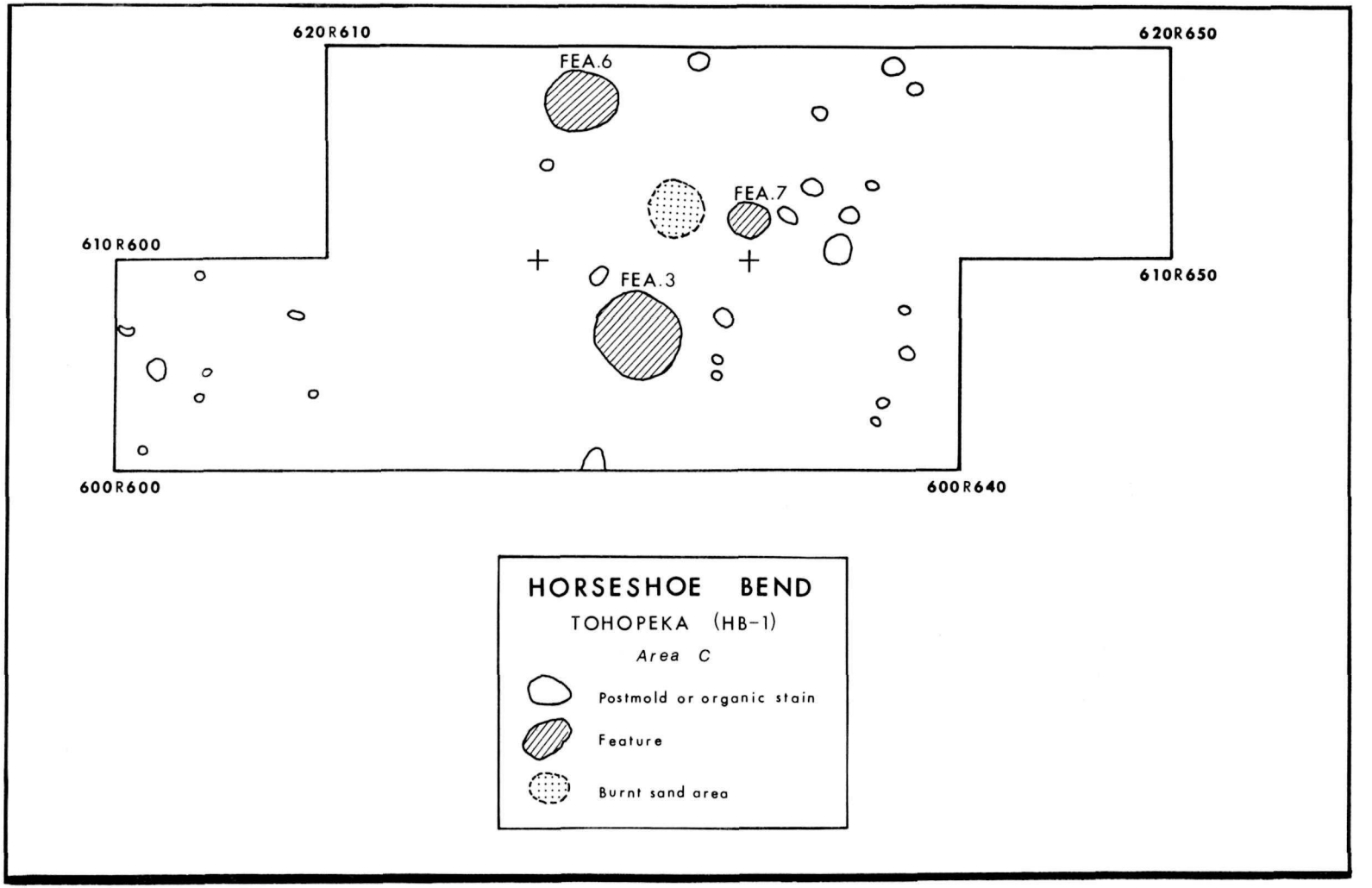

Figure 54. Plan of Features and Postmolds in Area C at Tohopeka.

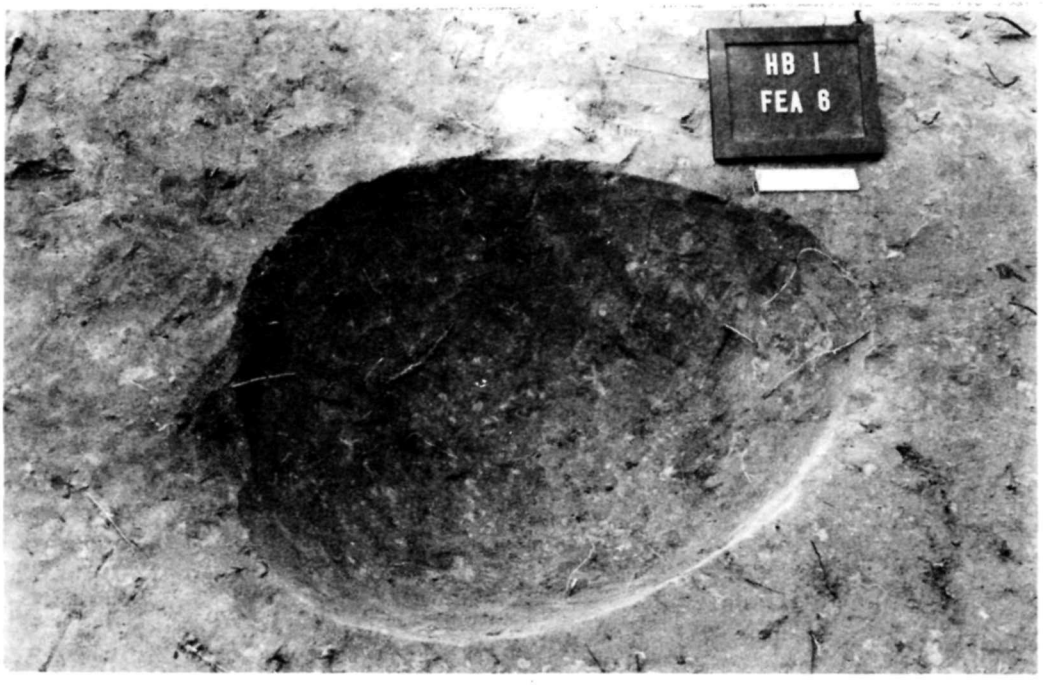

Figure 55. Feature 6 in Area C at Tohopeka.

Figure 56. Feature 7 in Area C at Tohopeka.

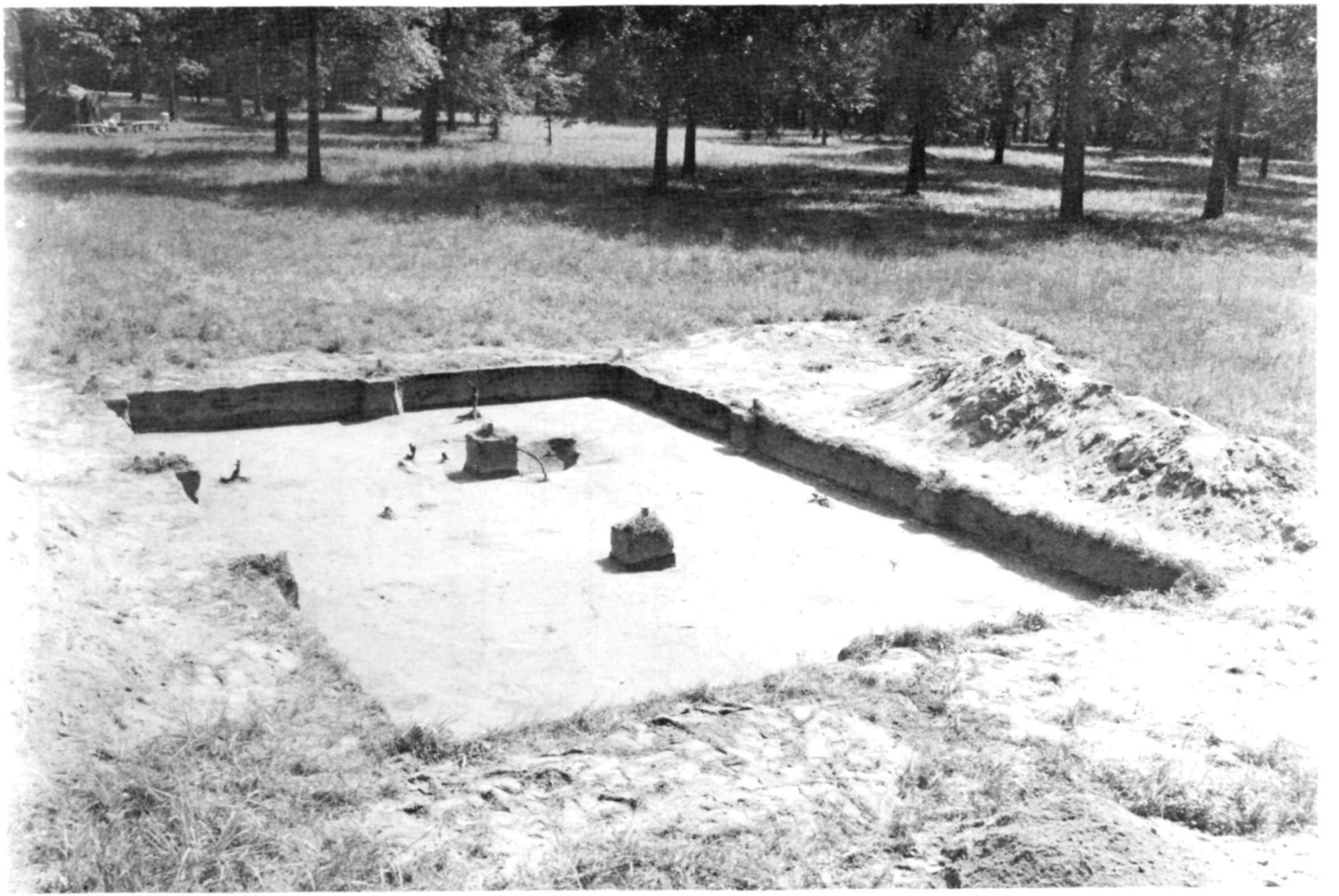

Figure 57. Completed excavations in Area D at Tohopeka.

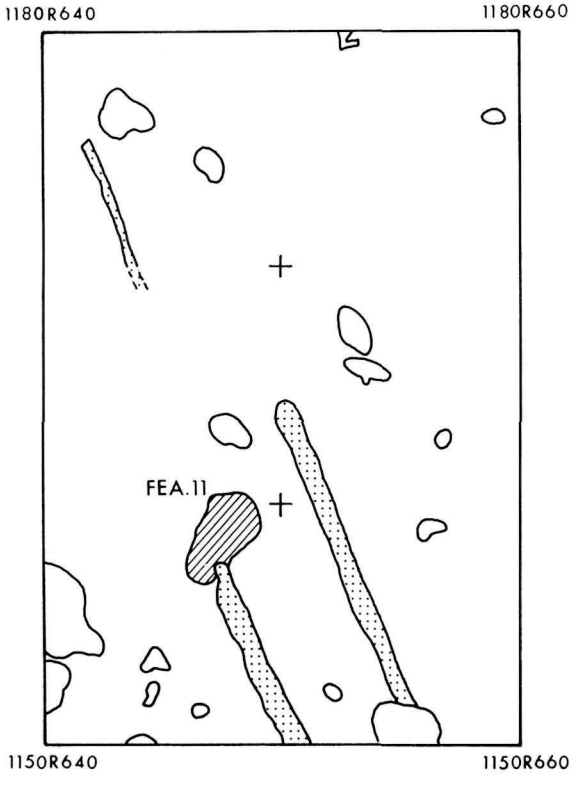

Figure 58. Plan of Features and Postmolds in Area D at Tohopeka.

Figure 59. Feature 11 in Area D at Tohopeka, before excavation.

Figure 60. Feature 11 in Area D at Tohopeka, after excavation.

that measured 2.1 by 3.9 feet across the top and was 0.8 foot deep at the center. The sandy fill, heavily laden with charcoal, contained 10 sherds of Dadeville Plain, eight sherds of Ocmulgee Fields Plain, five sherds of Chattahoochee Brushed, 44 small flakes of green bottle glass, and one celt fragment. This was the only feature at Tohopeka that could be positively assigned to the historic Creek occupation.

Interpretations

The goals of defining the settlement plan of Tohopeka Village and of determining the architecture of its houses were not realized in the 1973 excavations. Our investigations (especially in Area B) did demonstrate, however, that artifacts of the 1813-14 occupation tend to be patterned in their distribution on the site, and that this patterning may be related specifically to house locations.

Historic Creek features are not numerous on the site. This reflects the short life of the village, the fact that the Indians were preoccupied with working on the barricade and probably did not devote much time to activities in the habitation area, and the specialized nature of the settlement. Many of the features often found at permanent settlements, such as well-worn floors, storage pits, and burials, do not seem to be present.

The numerous features and abundant artifacts of the Dadeville component suggest a relatively intensive use of the site during the Early Mississippian period. The Dadeville occupation probably was impermanent, as the terrain in question would have been highly susceptible to seasonal flooding.

CHAPTER IV

NUYAKA VILLAGE SITE

The site of Nuyaka occupies approximately 160 acres on the south side of the Tallapoosa River, 1800 yards upstream from Tohopeka. It is situated on a first terrace, about 500 feet from the river bank, and has an average elevation of 24 feet above the water (Figures 61 and 62).

Nuyaka, founded in 1777, was an important town in the Okfuskee group. It was burned by Georgia militia in 1813, after which a number of its occupants moved to Tohopeka and participated in the 1814 battle.

The 1973 investigations at Nuyaka were carried out for the purpose of locating and excavating the remains of a dwelling structure, and of obtaining a sample of material culture from a late Historic Upper Creek settlement.

Historical Sources

Indian Agent Benjamin Hawkins described Nuyaka during his 1798-1799 travels through Upper Creek territory (Hawkins 1848:46-47):

> New-yau-cau; named after New York. It is on the left bank of Tallapoosa, twenty miles above Oc-fus-kee...The town is on a flat, bordering on the river; the adjoining lands are broken or waving and stony; the growth is pine, oak and hickory. The flat strips of land on the river, above and below, are generally narrow; the adjoining land is broken, with oak, hickory and pine. The branches all have reed; they have a fine ford at the upper end of the town; the river is one hundred and twenty yards wide.

In the winter of 1813, a detachment of Georgia Militia, under the command of David Adams, marched against the Upper Creek towns. During this brief campaign, the village of Nuyaka was attacked and burned. The following is a description by Adams of the activities around Nuyaka (Georgia Military Affairs, Vol. 3, 1801-1813:316-321):

> We...proceeded to within three miles of Newyaucau, and encamped without fire...the right and left wings formed such an alighment as would prevent escape of the enemy either up or down the river, near the margin of which the town was situated...When we arrived at a little hill which overlooked the town we found to our mortification as we had found at the village the preceding day, not a single Indian, though there were abundant signs of a very recent evacuation...the whole [of the troops] were then marched down to the town, where we discovered on the opposite side of the river a number of Indians in the wood on the brow of a small hill which commanded the ford, and at a distance from the town of perhaps four or

> five hundred yards, that space being occupied by a large old field and the river Talapousie...the river at this place was more shoal than at any other within our reach...we were under the painful necessity of executing so much only of the project of the Expedition as came within our immediate reach, which we did by burning the town containing 85 houses and the property found in them consisting principally of a considerable quantity of corn.

On Jackson's map (Figure 10), Nuyaka is shown in its proper location adjacent to the south bank of the river and several hundred yards upstream from Tohopeka. The town is illustrated by a cluster of seven small triangles which are labeled "New Youcau - burnt before." On the Coffee map (Figure 11), the village is labeled "Neuyorcau an old town," and is depicted with approximately 68 small ovals. The ovals are arranged in uneven rows, in much the same manner that he depicts Tohopeka, and are incorrectly positioned directly across the river from the barricade. The Cheatham map (Figure 12) has the village designated with the lettering "New Yorker Village." The words are stretched out to cover the approximate limits of the site, but no symbols for individual structures are used.

The historical sources indicate that Nuyaka village was a settlement of about 85 houses that were distributed in linear fashion along a terrace on the south margin of the Tallapoosa River. This village was burned on December 17, 1813, a few months prior to the Horseshoe Bend battle. References, such as "burnt before" and "old town," suggest that the town never was completely rebuilt, and that most, if not all, of its inhabitants had moved elsewhere by the time of the battle (a number of its males probably participated in the battle).

Hawkins (Pound 1951:106) recorded having visited with a White trader who had an establishment at Nuyaka in the late 1790's. Also, Nuyaka may have contained a square ground, since, as Swanton (1922:248) has noted, the people of Nuyaka were the only Okfuskees to maintain such a ceremonial facility in Oklahoma.

The houses of Nuyaka may have resembled those described by William Bartram (1792:394) in 1776 for the nearby town of Coolome:

> Their houses are neat and commodious buildings, a wooden frame with plaistered walls, and roofed with Cypress bark or shingles; every habitation consists of four oblong square houses, of one story, of the same form and dimensions, and so situated as to form an exact square, encompassing an area or court yard of about a quarter of an acre of ground, leaving an entrance into it at each corner.

Prior Archaeology

During the Florida State University project, all of the Nuyaka site was in cultivation or pasture. This allowed Fairbanks (1962a:14) to make a thorough surface inspection and to define the limits of the site. From this survey, he learned that the site was bounded on the south by a small creek, on the east by high ground, and on the north and west by the river (Figure 2). The southwest two-thirds of the site was within the park but was under use permit, half in cultivation and half in pasture.

The permitee allowed Fairbanks to excavate test pits in the pasture but not in the plowed field, which was described as "the most concentrated part of the site" (Fairbanks 1962a:20). The Florida State University excavations, therefore, consisted of three 10-foot squares ("trenches") located in the extreme southwest portion of the site (Figure 2).

Fairbanks found little cultural material in his Trench 1, which was located just north of the Creek on the southern margin of the site. However, Trench 2, located farther to the north on the edge of the alluvial terrace, contained abundant evidence of the historic Creek occupation. Two features were found in Trench 2. Feature 1 was a large, bell-shaped "storage pit" that contained a large amount of artifacts in the upper fill. Feature 2, a small, shallow pit, contained a mass of charred corn cobs. Trench 3, northeast of Trench 2 and also located on the terrace margin, contained only a small amount of Creek artifacts (Fairbanks 1962a 14-20).

From his surveys and test excavations, Fairbanks (1962a:20, 22) concluded that "the structures are rather widely scattered in this large flat bottomland. It may be that houses with their attendant features were scattered among the fields... Certainly houses, storage pits, and graves can be discovered."

1973 Investigations

In the twelve years after Fairbanks' project, all portions of the Nuyaka site contained within the park boundaries had been allowed to revert to a cover of secondary vegetation. What had been plowed fields and pasture in 1951 was, by 1973, thickly overgrown with pines, small hardwoods, broom straw, and briars. East of the park boundary, approximately one-fourth of the site was still kept in pasture by the owner.

Prior to beginning excavations, aerial and ground reconnaissances were made of the Nuyaka site. These showed that the area was nearly impenetrable, except along the fire roads maintained by the park, and that it would be impossible to obtain a surface collection. This situation necessitated that some type of broad-scale subsurface testing be devised.

Figure 61. Aerial view of the Nuyaka Site, looking north.

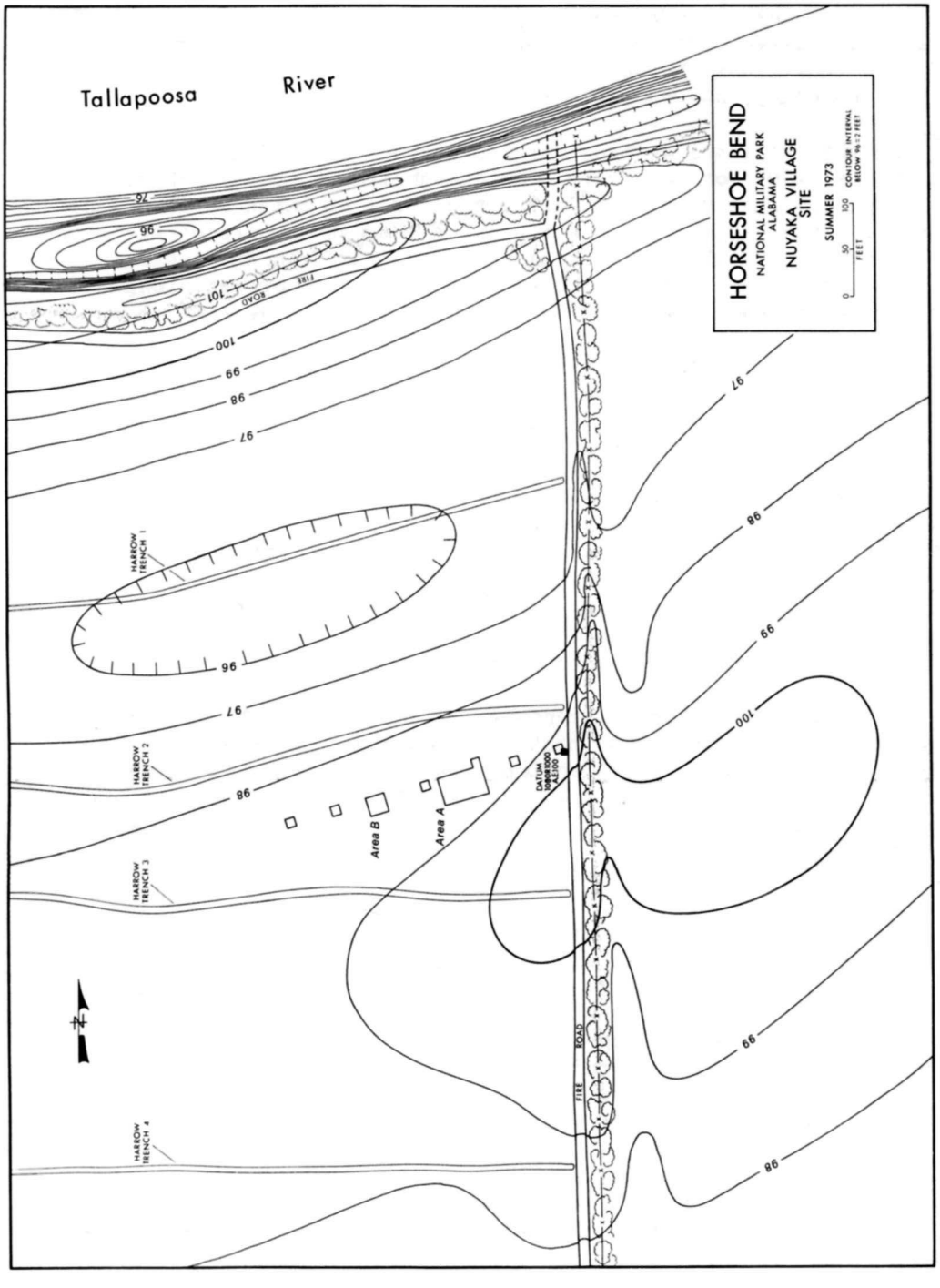

Figure 62. Contour Map of the Nuyaka Village Site.

A sample area was selected in the central part of the site, in what had been the plowed field where Fairbanks (1962a:20) thought the historic material would be concentrated. This area included a total of about 35 acres, bounded on the west by a park fire road (the 1961 fence line between pasture and plowed field), on the south by a fire road that runs along the back margin of the floodplain, on the east by the park boundary, and on the north by the river bank.

The initial sampling procedure consisted of digging one-foot-square test pits at 100-foot intervals over the entire 35 acres. These pits were taken 1.5 feet deep, well below the level at which Fairbanks had encountered the historic occupation. The largest numbers of artifacts (two to seven per one-foot square) were obtained from the tests in the eastern part of the sample area, especially on the portion along the front of the terrace about 400 to 800 feet south of the river bank.

In order to conduct further and more comprehensive sampling, five parallel east-west lines, approximately 200 feet apart, were established across the area. These lines were numbered 1 through 5, from north to south. Following these lines, the park maintenance crew cut six-foot-wide paths through the underbrush, and then used a tractor with a disc harrow to turn the plow zone to a depth of approximately 0.5 foot. This resulted in five lightly-plowed strips, 6 feet wide, 0.5 foot deep, and 1500 feet long, across the site (Figures 61 and 62). The trenches were not exactly parallel, as the tractor operator had to maneuver around clumps of trees and other areas of dense vegetation. These trenches were designed to reveal areas where cultural debris was most concentrated in the plow zone, but not to disturb sub-plow zone features.

The east ends of Harrow Trenches 2 and 3 (Figure 62) contained the largest amounts of artifacts, most of which could be identified as belonging to the historic Creek period. As a result of these findings, which corroborated the data from the test pits, a 100-foot by 300-foot excavation area was selected in the east-central part of the sample area, adjacent to the park boundary, and between Harrow Trenches 2 and 3 (Figure 62).

Initial excavations, consisting of seven 10-foot squares, were made along an east-west line at 50-foot intervals. These squares were taken only to the bottom of the plow zone, which averaged 0.8 foot thick, so that the time remaining in the project could be spent in a search for features of the Nuyaka Village occupation. All of the test squares contained a large amount of historic Creek artifacts, and in all but the eastern-most square there were postmolds and other intrusive features present at the base of the plow zone.

Two of the test squares, 1000R900 and 1000R800, revealed portions of features, from which large sherds and other cultural debris were protruding. It was decided, therefore, to expand excavations in the vicinities of these two squares. The area around 1000R900 was designated

Area A, and the area around 1000R800 became Area B (Figure 63). In both areas, the plow zone was removed with shovels and sifted through one-quarter-inch screens (Figure 64). All soil removed from features was hosed through window screen at a facility set up on the river bank near the excavations (Figure 65).

Area A

The excavations in Area A consisted of 16 contiguous 10-foot squares (Figures 63 and 66). In addition to a number of postmolds (some of which may have been taproot molds), fifteen features were identified. The upper portions of all of the features were disturbed by modern plowing, which resulted in greater concentrations of cultural debris in the plow zone over them.

No definite pattern could be detected in the postmolds in Area A. Likewise, there were no remains of floors, hearths, or other direct evidence of a structure. Nevertheless, the concentration of features and cultural debris suggests that the excavations were in the near vicinity of a house or houses.

Feature 1 (Figures 67, 68, 69, and 70), a large oval pit with a basin-shaped cross section, was located in the northeastern portion of Area A. It measured 7.1 by 8.4 feet across the top and 1.3 feet deep at the center. The pitfill, containing a large amount of cultural debris, was carefully removed and water-screened at the river bank. The water-screening resulted in 1206 grams of small-scale material, including 229 grams of botanical specimens. Artifacts from Feature 1 consisted of:

247 sherds, Dadeville Plain
308 sherds, Ocmulgee Fields Plain
27 sherds, Ocmulgee Fields Burnished Plain
18 sherds, Ocmulgee Fields Incised
131 sherds, Chattahoochee Brushed
140 sherds, unidentified sand tempered
2 chipped stone projectile points
1 ground stone celt
2 lumps of graphite
12 glass trade beads
19 sherds of bottle glass
1 iron strap
27 fragments of fire-cracked rock
100+ animal bones

Feature 2 was located three feet northeast of Feature 1. It consisted of a small, shallow pit that measured 1.8 by 2.6 feet across the top and 0.3 foot deep at the center. It contained dark gray fill with bits of charcoal. There were no associated artifacts.

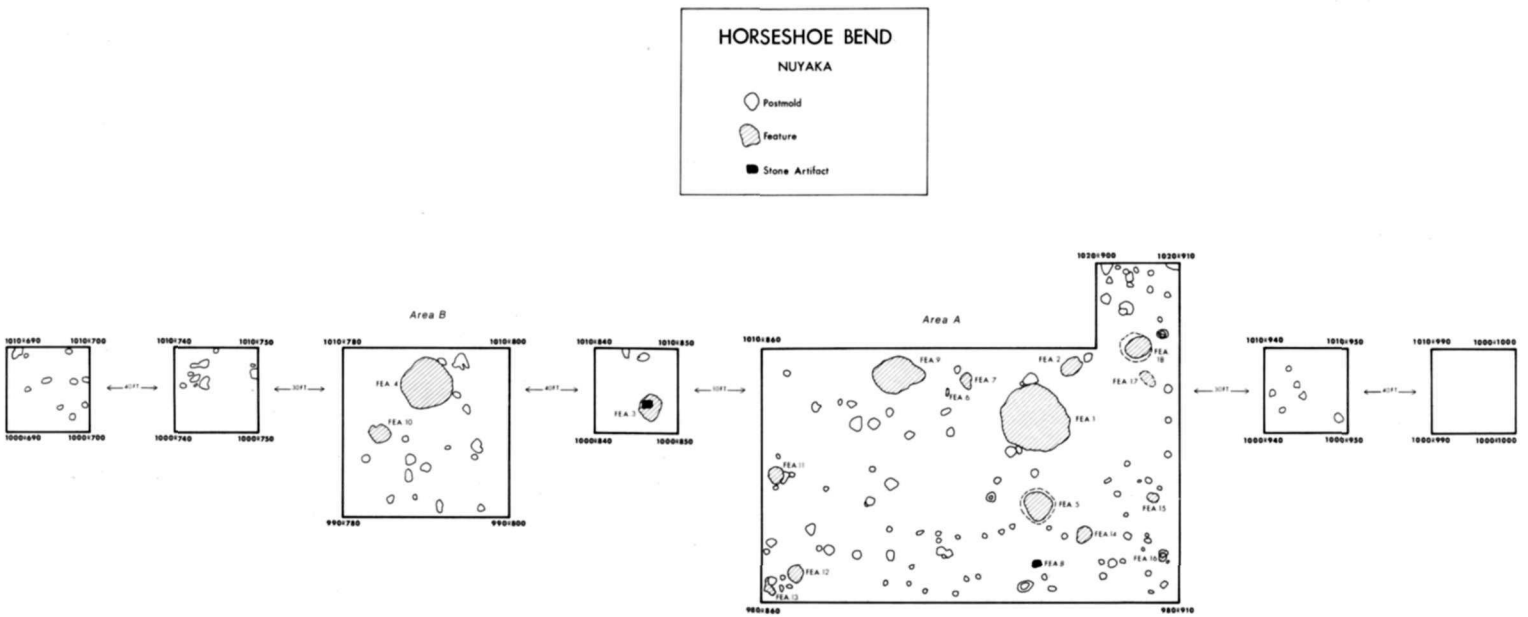

Figure 63. Plan of Features and Postmolds at the Nuyaka Site.

Figure 64. Excavating a test square at the Nuyaka site.

Figure 65. Water-screening pitfill at the Nuyaka site.

Figure 66. Completed excavations in Area A at the Nuyaka site.

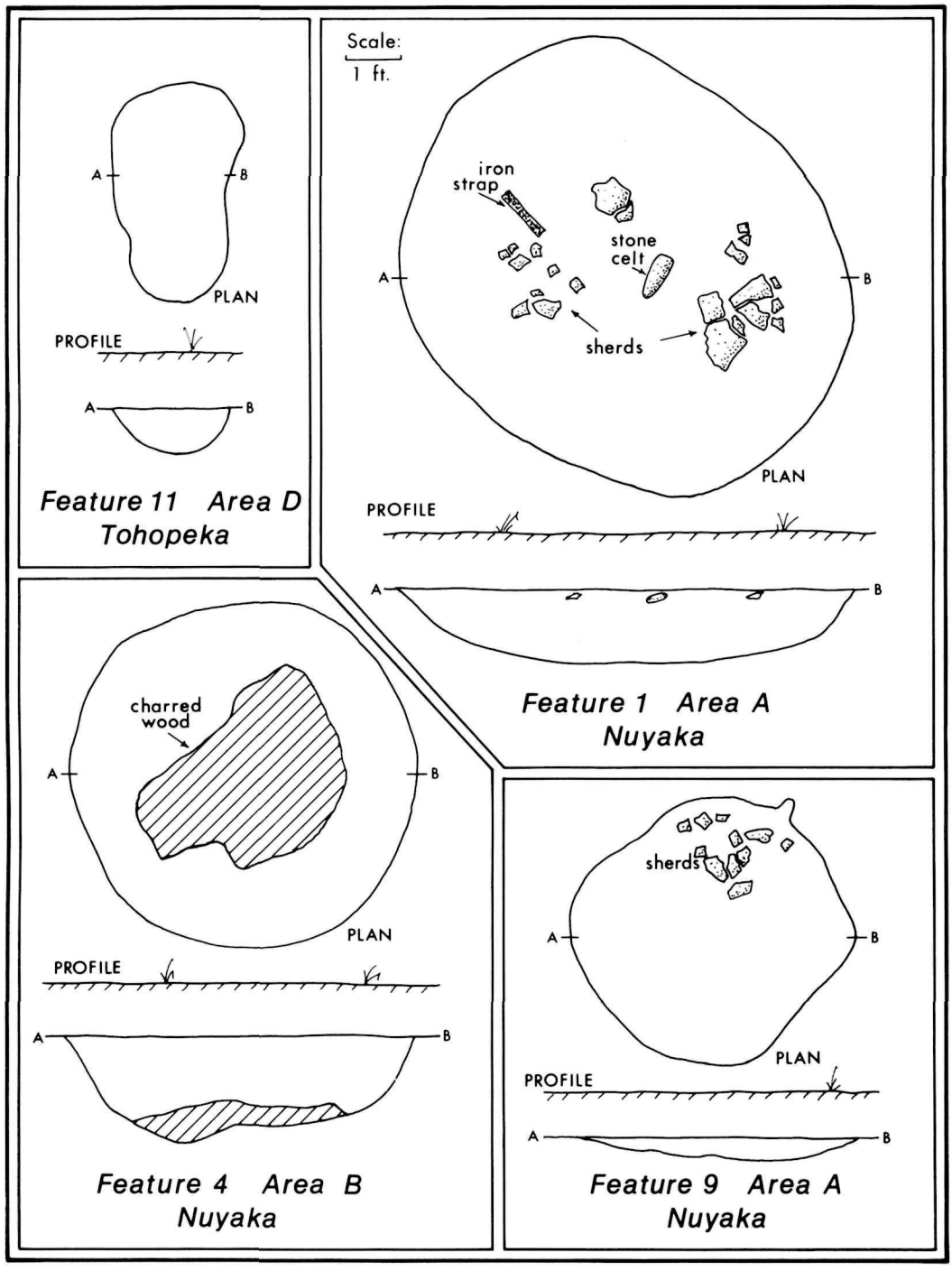

Figure 67. Historic Creek Features at Tohopeka and Nuyaka.

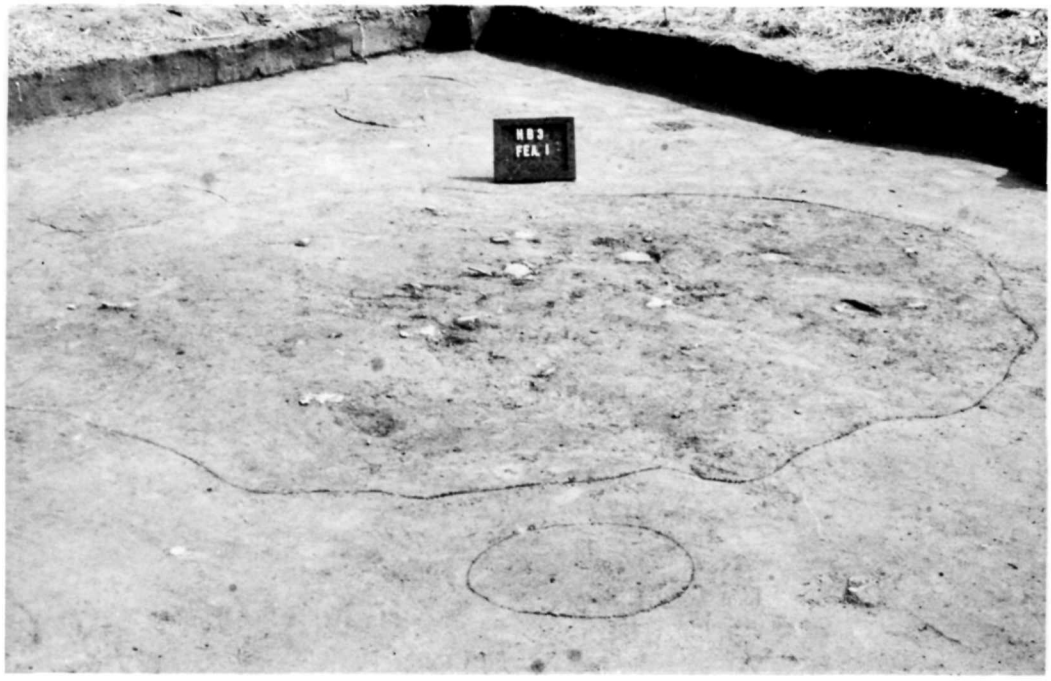

Figure 68. Feature 1 in Area A at the Nuyaka site, before excavation.

Figure 69. Closeup of Feature 1, showing celt and broken pottery vessel.

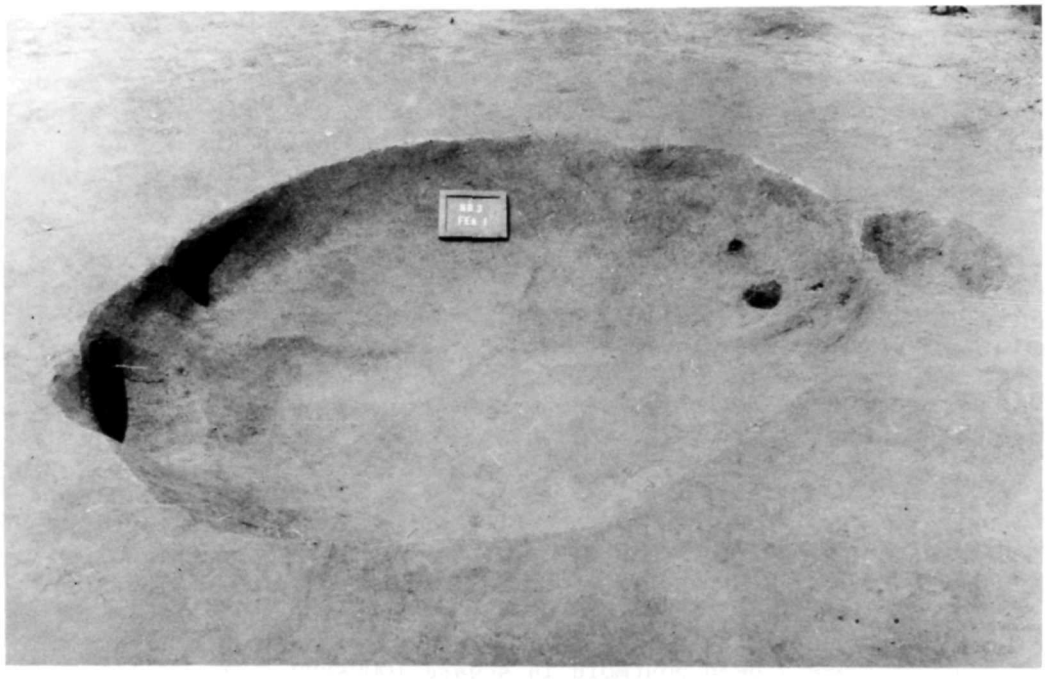

Figure 70. Feature 1, following excavation.

Figure 71. Feature 3 in Area A at the Nuyaka site.

Feature 3 (Figures 63 and 71) was located in test square 1000R850, ten feet west of Area A. The pit was 2.8 feet in diameter and 0.8 foot deep at the center. It contained 3 sherds of Dadeville Plain, and a slab of quartzite 23.4 cm wide, 40 cm long, and 3.8 cm thick. The quartzite slab showed evidence of wear on both flat surfaces.

Feature 5 (Figures 45 and 72), located five feet south of Feature 1, was bell-shaped in cross-section. The pit was 3.4 feet in diameter at its orifice, narrowed to a diameter of 3 feet, and then expanded again to a diameter near the base of 3.9 feet; it was 1.9 feet deep with a flat bottom. This feature could be positively attributed to the Dadeville occupation. A dark organic-laden fill contained 43 sherds of Dadeville Plain, and one fragment of a chipped stone projectile point.

Feature 6 (Figures 63 and 73) was a section of rifle barrel 32 cm in length that was found at the base of the plow zone in square 1000R890. It is highly probably that this artifact was originally contained in either Feature 1 or Feature 9 and was removed to its present location by modern plowing.

Feature 7 was a deep postmold in square 1000R890. It was 1.3 feet in diameter at the top, 0.4 foot in diameter at the bottom, and 3.2 feet deep. It contained small bits of charcoal and animal bone, along with 36 sherds of Dadeville Plain, one sherd of Ocmulgee Fields Plain, 7 glass trade beads, and 1 sherd of bottle glass.

Feature 8 (Figures 63 and 74), a large, multi-pitted anvil stone, was embedded in the subsoil just below the base of the plow zone near Features 5 and 15. The artifact, an unidentified concretionary-type rock, measured 26 cm. long, 30 cm. wide, and 12 cm. thick.

Feature 9 (Figures 67, 75, 76, and 77), a large, oval pit, was located 10 feet northwest of Feature 1. The pit measured 4.6 by 5.4 feet across the top, and 0.4 foot deep at its deepest point. The pitfill contained charcoal, patches of yellow clay, and a large number of historic Creek artifacts. All of the pitfill was water-screened, which resulted in 498 grams of material, including 177 grams of charred wood and other botanical specimen. Several of the potsherds in this feature fitted with sherds from Feature 1, evidence for the contemporaneity of the two features. Artifacts from Feature 9 consisted of:

33 sherds, Dadeville Plain
70 sherds, Ocmulgee Fields Plain
24 sherds, Ocmulgee Fields Incised
26 sherds, Chattahoochee Brushed
4 glass trade beads
1 brass chatelaine
12 sherds of bottle glass
2 animal bones

Feature 11 (Figure 63), located on the west margin of Area A, consisted of a pit that was 1.9 feet in diameter at the top, 1 foot in diameter at the bottom, and 2.6 feet deep. This feature may have been a large postmold. It contained much charcoal, the almost-complete skull of a black bear (Ursus americanus), 31 sherds of Dadeville Plain, four sherds of Ocmulgee Fields Plain, 3 sherds of Chattahoochee Brushed, and 1 sherd of bottle glass.

Feature 12 (Figures 63 and 66) was located 10 feet south of Feature 11. It was 1.7 feet in diameter at the top, 0.5 foot in diameter at the bottom, and 3.1 feet deep. Like Feature 11, it appeared to represent a large postmold. The mottled brown fill contained 1 sherd of Dadeville Plain.

Feature 13 (Figures 63 and 66), adjacent to Feature 12 and probably another large postmold, was 1.4 feet in diameter at the top, 0.9 foot in diameter at the bottom, and 1.9 feet deep. The fill contained several heat-fractured rocks, wood charcoal fragments, several fragments of box turtle (Terrapene carolina) carapace, 13 sherds of Dadeville Plain, one sherd of Ocmulgee Fields Plain. Water-screening produced 1189 grams of material.

Feature 14, located 3.4 feet southeast of Feature 5, was a postmold-like feature with a top diameter of 1.5 feet and a basal diameter of 0.5 foot. The sides sloped gradually to a depth of 0.5 foot and then were vertical for the remaining 0.6 foot. The fill contained 13 sherds of Dadeville Plain.

Feature 15 was located 7.5 feet northeast of Feature 14. It was a large postmold, 1.4 feet in diameter at the top, 0.6 foot in diameter at the bottom, and 1.8 feet deep. The fill contained 3 sherds of Dadeville Plain.

Feature 16, located 5 feet southeast of Feature 14, was a basin-shaped pit that measured 1.8 feet in diameter at the top and 1 foot deep at the center. The fill contained a small quantity of charred wood and 1 sherd of Dadeville Plain.

Feature 17 was a small pit in the northeast portion of Area A. It measured 1.1 by 1.8 feet across the top and was 0.9 foot deep. The light gray fill contained no artifacts.

Feature 18 (Figures 45 and 78), located 2.4 feet north of Feature 14, was a large, deep pit, with a bell-shaped cross-section similar to Feature 5. The pit measured 2.8 by 3.1 feet across the orifice, then it narrowed to a diameter of 2.6 feet, and finally it expanded to a basal diameter of 3.7 feet. The overall depth was 3.4 feet and the bottom was nearly flat. The fill, rather homogeneously saturated with cultural remains, produced 790 grams of water-screened material, 199 grams of which were botanical specimen. Artifacts consisted of:

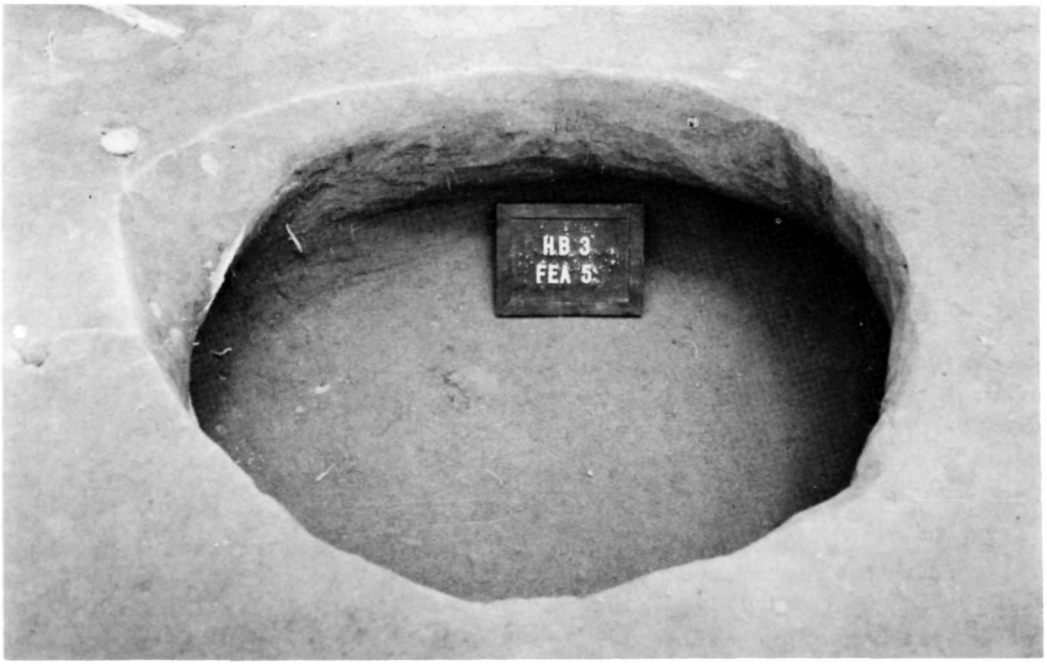

Figure 72. Feature 5 in Area A at the Nuyaka site.

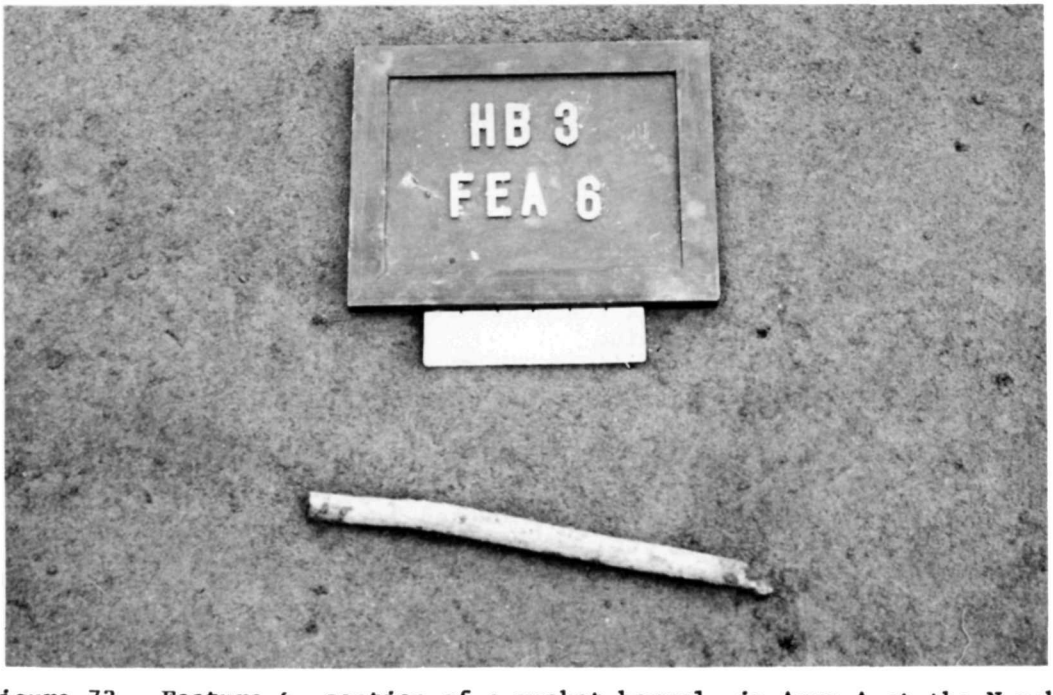

Figure 73. Feature 6, section of a musket barrel, in Area A at the Nuyaka site.

Figure 74. Feature 8 in Area A at the Nuyaka site.

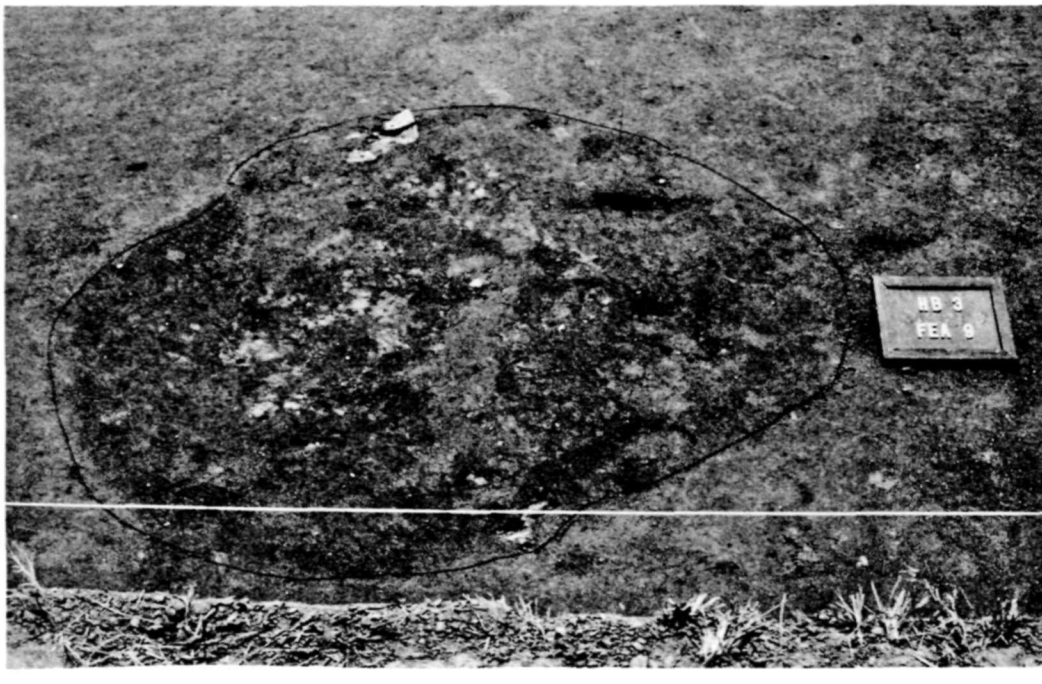

Figure 75. Feature 9 in Area A at the Nuyaka site, before excavation.

Figure 76. Feature 9, following excavation, with artifacts in place.

Figure 77. Close up of chatelaine (lower left) and broken pottery vessel in Feature 9.

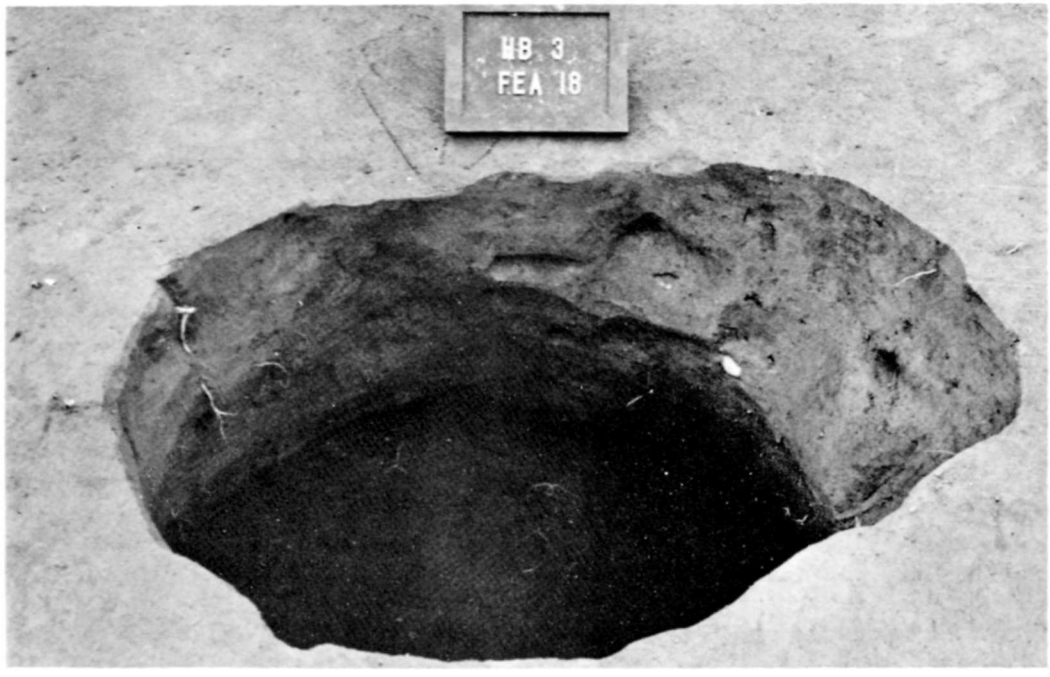

Figure 78. Feature 18 in Area A at the Nuyaka site.

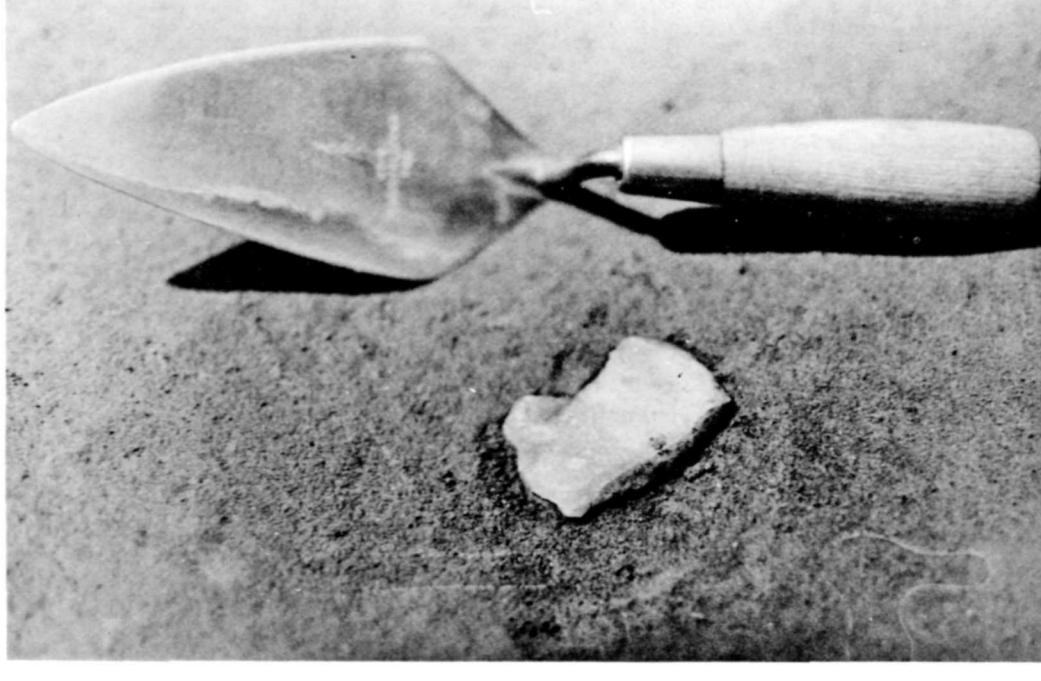

Figure 79. Quartz flake imbedded in sandy-clay below the plow zone at the Nuyaka site.

185 sherds, Dadeville Plain
2 sherds, Dadeville Brushed
1 sherd, Dadeville Incised
1 sherd, Ocmulgee Fields Plain (near the top and probably intrusive)
1 sherd, Chattahoochee Brushed (near the top and probably intrusive)
1 fragment of clay pipe bowl (Dadeville paste)
33 fragments of fire-cracked rock

Feature 18 could be attributed prositively to the Dadeville occupation. Consequently, several samples of charred wood were obtained from near the bottom of the pit (3 feet below the base of the plow zone) for potential radiocarbon dating. One of these samples was submitted to Geochron Laboratories, with a resulting date of A.D. 1045 $\pm$ 145 (GX3959).

While troweling the top of the red sandy-clay that underlay the plow zone in Area A, several large primary flakes of milky quartz were encountered (Figure 79). These flakes were clearly within the sandy clay and were not intrusive from either the Dadeville or the historic Creek components at the site. It is likely that these flakes belong to an Archaic Period occupation. Several similar flakes were also obtained at the bottom of one of the one-foot-square test pits near the river bank.

Area B

Area B (Figures 63 and 80), located 60 feet west of Area A, consisted of 4 contiguous 10-foot squares. These squares contained 16 postmolds and 2 features.

Feature 4 (Figures 67, 81, and 82), located in the north-central part of Area B, was a large, basin-shaped pit similar to Feature 1 in Area A. It measured 6.2 by 6.4 feet across the top and was 1.9 feet deep at its deepest point. A large mass of wood charcoal was found in the bottom of the pit (Figures 67 and 82). Water-screening of the pit-fill yielded 16,696 grams of small-scale material, from which 914 grams was included in the ethnobotanical analysis. Artifacts from Feature 4 consisted of:

291 sherds, Dadeville Plain
1 sherd, Dadeville Punctated
126 sherds, Ocmulgee Fields Plain
30 sherds, Ocmulgee Fields Burnished Plain
59 sherds, Ocmulgee Fields Incised
94 sherds, Chattahoochee Brushed
2 sherds, Lamar Complicated Stamped
246 sherds, unidentified sand tempered
1 chipped-stone projectile point
1 fragment of ground-stone celt
1 gunflint

2 glass trade beads
1 iron buckle
6 rolled copper beads
1 bottle glass scraper
69 sherds of bottle glass
3 pieces of scrap brass or copper
100+ animal bones

Feature 10 a basin-shaped pit, was located 4 feet southwest of Feature 4. It measured 2.7 feet in diameter and 1.7 feet deep. The dark gray fill contained charcoal flecks and several lumps of burnt clay, but there were no artifacts.

Interpretations

Those archaeological occurrences at the Nuyaka site that were classified as "features" consisted of individual artifacts (Feature 6 and 8), large postmolds (Features 7, 11, 12, 13, 14, and 15), small pits (Features 2, 3, 10, 16, and 17), deep bell-shaped pits (Features 5 and 18), and large basin-shaped pits (Features 1, 4, and 9).

The two bell-shaped pits were assocated with the Dadeville occupation and probably functioned as storage pits for vegetable foods. In Feature 18, unidentified nut shells constituted 47 percent (by gram weight) of the total identified plant remains (Chapter VII). This was the largest amount of nut shells for the four analyzed features, suggesting that the bell-shaped pits may have been storage bins for edible nuts.

The three large, basin-shaped pits, as evidenced by the presence of Ocmulgee series pottery and trade artifacts, were all products of the historic Creek occupation. The horizontal dimensions of these pits, together with the fact that they extended just into the compact sandy-clay substratum, suggests that they were borrow pits for clay. Also, the majority of identified seeds from these features (Chapter VII) would have been available in late spring and summer, which is the most probable time of the year for house repairs such as patching walls and rebuilding chimneys.

The quantity of Dadeville pottery in some of the Creek features makes it probable that there was an intact Dadeville midden on the site at the time of the Creek occupation, and that the material from this midden readily became mixed with current garbage and fill dirt. Modern plowing and erosion seem to have removed any evidence of either a Creek midden or a Dadeville midden in the areas of the 1961 and the 1973 excavations.

Plowing and erosion also may explain the absence of any direct evidence thus far for house floors or other intact structural remains.

Figure 80. Completed excavations in Area B at the Nuyaka site.

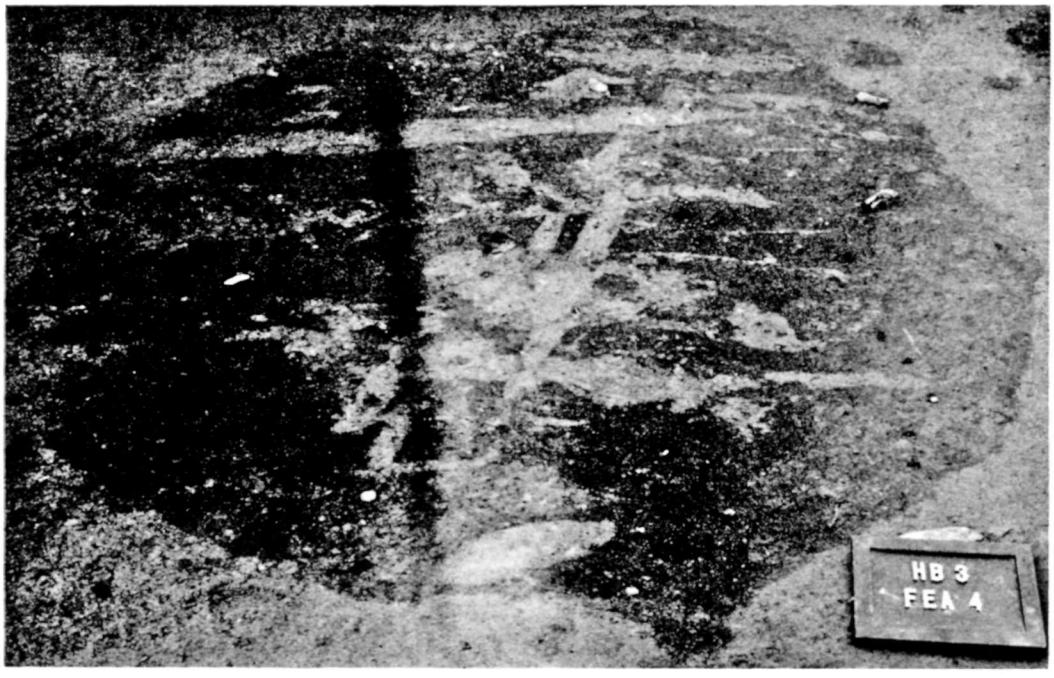

Figure 81. Feature 4 in Area B at the Nuyaka site, before excavation.

Figure 82. Feature 4, following excavation.

The borrow pits and some of the postmolds probably constitute indirect evidence for activities that would have taken place in the immediate vicinity of a house or house cluster, and it is possible that further excavations in Areas A and B would reveal structural remains. That the entire village was burned in 1813 makes it even more probable that direct physical evidence of at least some of the houses would be found through more extensive excavations. The work by Fairbanks in 1961 and the present investigations both indicate that material remains of the 1777-1813 Creek occupation at Nuyaka are scattered over a very large area, with the residence sites being represented by clusters of garbage-filled pits and other features. Large-scale sampling, similar to the harrow technique, might be used to isolate the areas of concentration so that they could be intensively explored. Again, as at Tohopeka, it is also possible that the overall settlement pattern could be defined through the careful mapping of differential artifact and feature densities, even if specific architectural remains were missing. It would appear, however, that because of the longer occupation, there is a better chance for the discovery of house remains at Nuyaka than at Tohopeka.

Important results of the 1973 investigations at Nuyaka were; (1) the discovery and dating of a prehistoric Dadeville component; (2) the finding of abundant and well-preserved plant remains in the prehistoric features, which has contributed to a better ethno-botanical documentation of the Upper Creeks; and (3) the discovery of a possible Archaic component in the alluvial substratum at the site.

CHAPTER V

ABORIGINAL ARTIFACTS

by
Roy S. Dickens, Jr.
(assisted in ceramic analysis by James H. Chapman)

During the excavations at the three Horseshoe Bend sites, an effort was made to obtain samples of the material remains of both the Dadeville and the historic Creek occupations. All plow zone soil was sifted through one-quarter-inch screens, and all feature fill was subjected to water-screening and flotation. Horizontal and vertical controls were maintained in the excavations, as described in Chapter I, to allow for analyses of spatial and temporal relationships of artifact types. Both intra-site and inter-site comparisons were made of the distributions of the historic Creek artifacts, and these comparisons have provided information on the cultural settings at the two villages and have suggested some differences in the organization and function of each.

Chipped Stone

Forty-five chipped-stone artifacts were recovered in the excavations at the three sites (Table 1). Of these, 27 were classified as projectile points, two as scrapers, 10 as hoes (or other digging tools), five as blanks, and one as a core. The projectile points (some of which may have functioned as knives) were grouped into four general categories by shape: five ovate, eight stemmed, two side notched, and seven triangular; five points were fragmentary and their overall shape could not be determined (Table 2).

The ovate points (Figure 83, a-e), all made from quartz or quartzite, were from 2.2 to 3.0 cm wide and from 5.2 to 5.9 cm long. The stemmed points (Figure 83, h-l) made from quartz, gray chert, pink chert, and black chert, were from 2.4 to 3.0 cm wide and from 3.2 to 6.2 cm long. The two side-notched points (Figure 83, f) were quartz, and the only complete one measured 2.0 cm wide and 3.4 cm long. The triangular points (Figure 84), made from quartzite, tan chert, gray chert, pink chert, and black chert, measured from 0.7 to 1.4 cm wide and from 1.0 to 3.0 cm long.

Three of the ovate points were found in the plow zone at the village sites. Two others were found directly associated with features at the barricade, one of which (Figure 83, e) was embedded in a charred log in Feature 2. An important aspect of this latter find was that a rather crude, ovate quartz point, in a style that would normally be associated with Middle Archaic cultures in the Southern Piedmont (Caldwell 1954),

was found in a late historic context. The stemmed points were all found in the plow zone, except for one stemmed quartz point from the barricade ditch. Triangular points were found in the plow zone at Tohopeka and in Feature 1, Feature 4, and a postmold at Nuyaka. Associated artifacts suggest that the triangular points were products of the historic Creeks.

Two small chipped-quartz scrapers were recovered. One of these scrapers was found in Area B at Tohopeka (Figure 83, g) and the other was from Harrow Trench 1 at Nuyaka.

Eight crude digging tools (Figure 85) were found at the village sites, two at Tohopeka, and six at Nuyaka. These were made from sericitic gneiss, schist, and slate. These tools were roughly chipped into shape, and several of them exhibited use wear on the blades. One pick-like tool of micaceous schist, from Area B at Tohopeka, appears to have been roughly chipped and then ground overall (Figure 87,a).

Five unfinished tools, or blanks, were recovered (four of these are illustrated in Figure 86). All of the blanks were quartz and they all were found at Nuyaka, where they probably can be attributed to the Archaic component discussed in Chapter IV. One quartz core also was found at Nuyaka.

Ground Stone

One complete ground-stone celt and 24 celt fragments--17 from Tohopeka and six from Nuyaka--were recovered (Table 1). The complete celt (Figure 87,b) made from a low-grade metasediment, measured 19 cm long, 3.5 cm wide at the pole end, 6.4 cm wide at the bit end, and 4.0 cm thick at the center. It was found in Feature 1 at Nuyaka and thus belonged to the historic Creek occupation. The other celt fragments were diabase, greenstone, and chloritic schist.

Three ground-stone discs (Figure 87, c and d), two from Tohopeka and one from Nuyaka were recovered. Two of these discs were soapstone; the third was an unidentified rock.

Part of a ground-stone atlatl weight was found in the plow zone in Area B at Nuyaka (Figure 87,e). The material was a red-banded ironstone. This artifact probably can be identified with the Archaic component.

There were two ground soapstone beads. The first was found in Feature 2 (Dadeville component) at Tohopeka (Figure 87,i). This bead was 1.9 cm long and 1.8 cm in overall diameter, and had a 0.5 cm hole drilled through it length-wise. The second was an undrilled bead or plug, 3.4 cm long and 2.3 cm in diameter.

	Chipped Stone					Ground Stone								Rough Stone			
	Projectile Point	Scraper	Hoe	Blank	Core	Celt or Celt Frag.	Atlatl Weight	Disc	Bead	Pipe	Ear Spool	Gorget	Pigment	Hammer	Pestle	Mortar	Pitted Anvil
Tohopeka																	
Area A	4					2		1	1				1	5			1
Area B	3	1	1			13		1				3	6	6			1
Area C	1					1							1	1			1
Area D	1					1							1	1			
Test Pits	1																
Surface			1														
Barricade	6										1			3			
Nuyaka																	
Area A	2		2	2		2							4	5	1		
Area B	6			1		3	1		1	2			5	2			
Test Pits	1		1		1					1				1		1	1
Harrows	2	1	3	4		1		1									
Surface						1											

Stone Artifacts at the Horseshoe Bend Sites

Table 1

	Shape	Width cm	Length cm	Material	Context
Tohopeka					
Area A	triangular	1.4	3.0	black chert	Plow Zone
	ovate	2.2	5.9	quartzite	Zone 6
	triangular	1.3	1.6	tan chert	Zone 3
	triangular	1.1	1.4	pink chert	Zone 3
Area B	side notched	2.0	3.4	quartz	Plow Zone
	(fragment)	-	-	pink chert	Plow Zone
	(fragment)	-	-	quartzite	Plow Zone
Area C	stemmed	2.5	6.2	quartz	Plow Zone
Area D	ovate	2.0	4.9	quartz	Plow Zone
Test Pit	triangular	1.2	1.7	tan chert	Zone 6
Barricade					
	ovate	2.8	5.9	quartz	Fea. 2
	stemmed	2.5	6.0	quartz	Ditch
	ovate	2.8	-	quartz	Ditch
	side notched	2.3	-	quartz	Surface
	(fragment)	-	-	quartz	Surface
	(fragment)	-	-	quartz	Surface
Nuyaka					
Area A	triangular	0.7	1.3	quartzite	Fea. 1
	(fragment)	-	-	pink chert	Fea. 5
Area B	stemmed	3.0	-	gray chert	Plow Zone
	stemmed	3.0	6.1	shale	Plow Zone
	stemmed	3.0	3.2	quartz	Plow Zone
	stemmed	-	-	quartz	Plow Zone
	triangular	0.9	1.0	gray chert	Postmold
	triangular	1.1	1.5	gray chert	Fea. 4
Test Pits	stemmed	-	-	pink chert	Plow Zone
Harrows	stemmed	2.4	4.2	black chert	Plow Zone
	ovate	3.0	5.2	quartzite	Plow Zone

Projectile Points from the
Horseshoe Bend Sites

Table 2

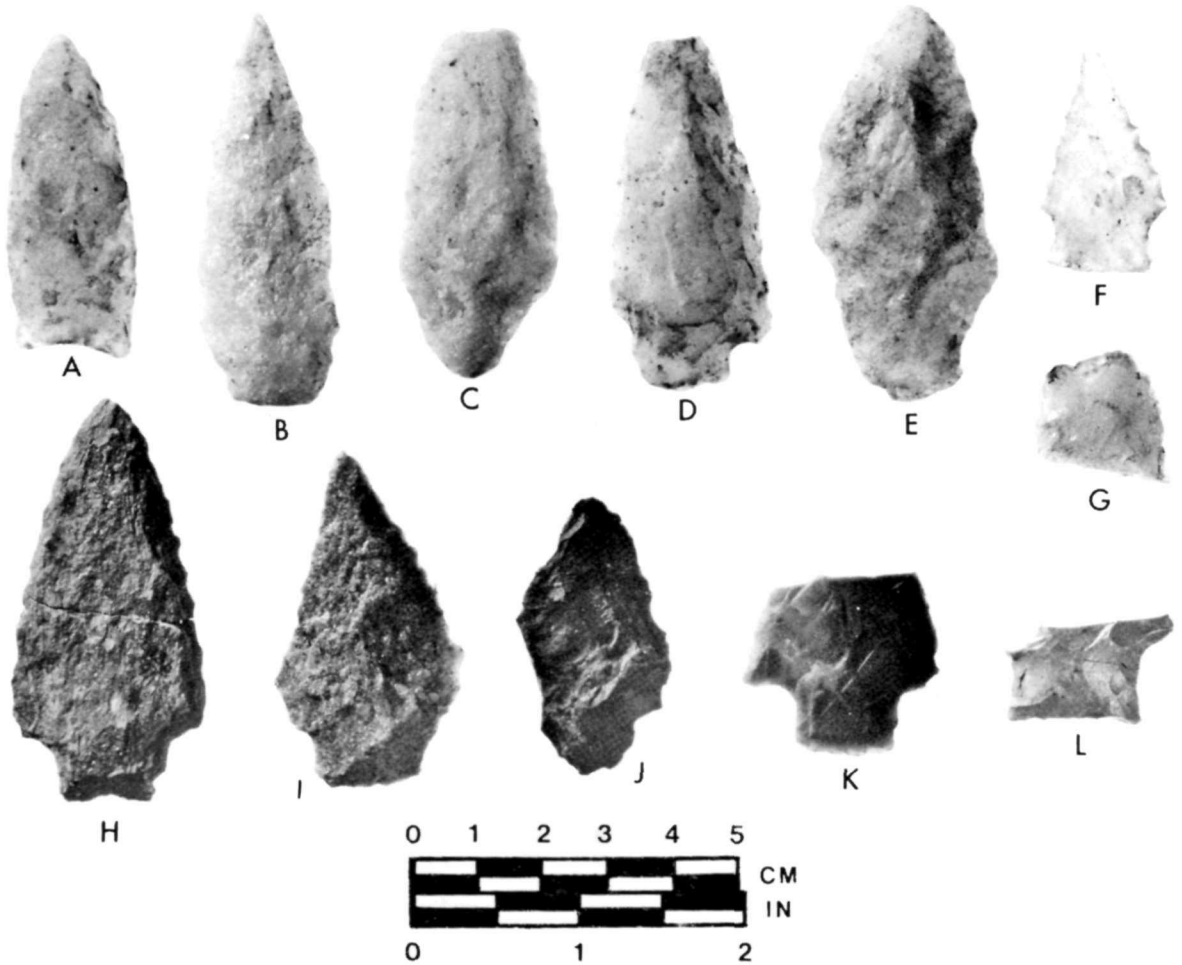

Figure 83. Chipped stone artifacts. a-e, Ovate points. f, Side-notched point. g, Scraper. h-l, Stemmed points.

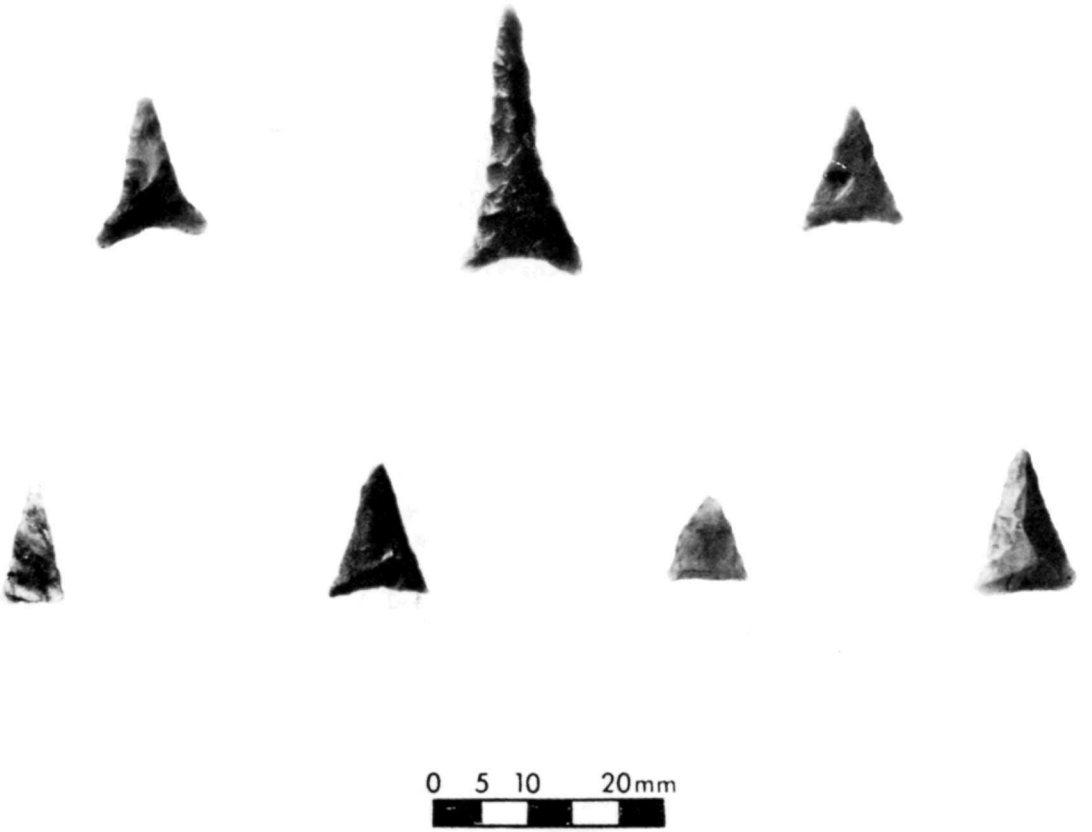

Figure 84. Triangular projectile points.

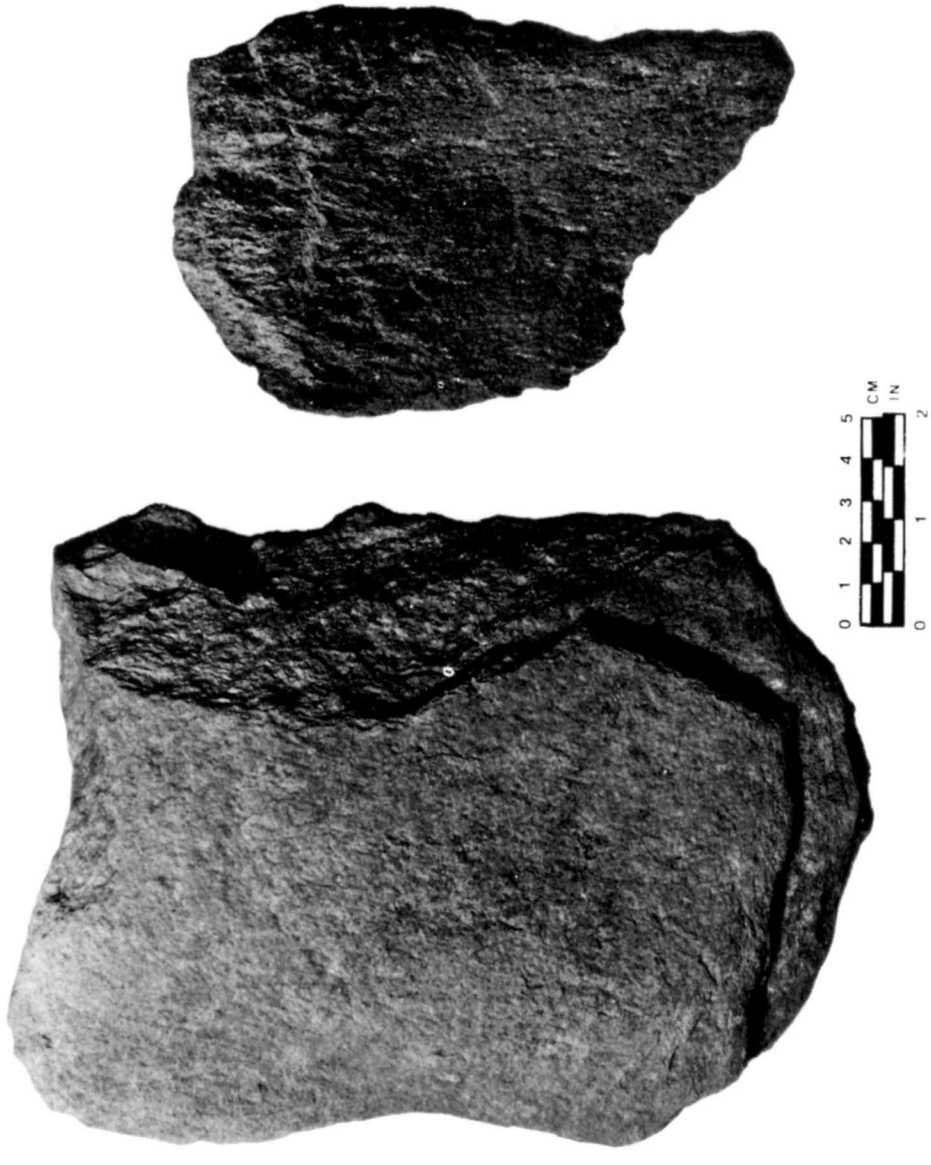

Figure 85. Digging tools.

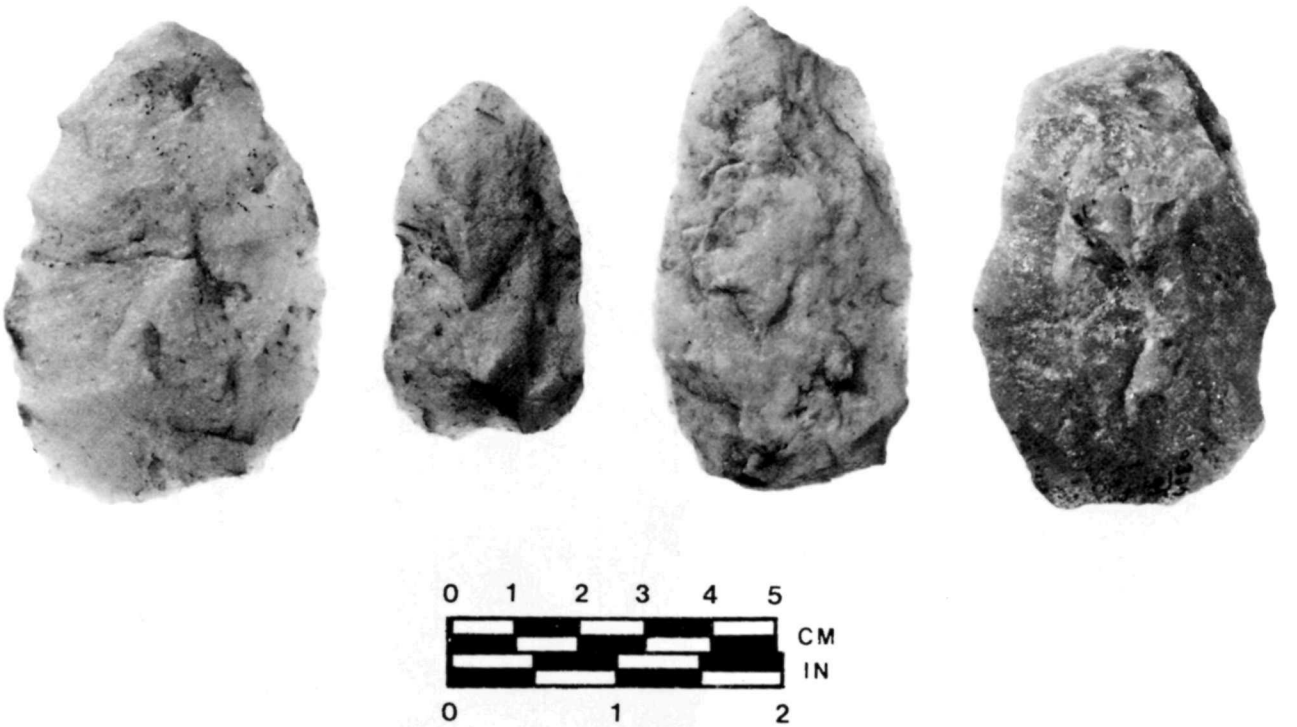

Figure 86. Quartz blanks.

Three fragments of ground-stone pipes were found at Nuyaka, two in Area B and one in a test pit (Figure 87, g and h). Two of these were bowl fragments, and the third was a complete stem with a small portion of the bottom of the bowl. All three items were soapstone. The pipe stem was 4.9 cm in length, and had an overall diameter of 1.6 cm and a hole diameter 0.9 cm. There was a flange 2.1 cm in diameter and 0.2 cm wide around the proximal end of the stem. This pipe resembles closely those recovered from other historic Indian sites in the Southeast (e.g., Setzler and Jennings 1941: Figure 19).

A fragment of a small, highly polished greenstone ring, possibly an ear spool, was found in Feature 1 at the barricade (Figure 87, f).

Two pieces of ground greenstone and one schist, all quite thin in cross-section, probably are gorget fragments. All three pieces were found in Area B at Tohopeka. A "piece of greenstone gorget with hole" was found by Fairbanks (1962b:47) in Feature 9 of his 1961 excavations at Tohopeka (the ceramics from this feature were overwhelmingly of the Dadeville Series, suggesting an association of the gorget with the Dadeville component).

Eighteen cut and/or abraded pieces of pigment stone were found at the two village sites. These consisted of 11 pieces of graphite (nine from Tohopeka and two from Nuyaka), six pieces of hematite from Nuyaka, and one piece of limonite from Nuyaka. The two graphite pieces from Nuyaka were found in Feature 1, an historic Creek feature.

Rough Stone

Thirty artifacts--16 from Tohopeka, three from the barricade area, and 11 from Nuyaka--were placed in the category of rough-stone tools, i.e., tools that had not been modified prior to their use. These were subdivided into hammers, pestles, mortars, and anvils (Table 1).

Hammers consisted of water-worn cobbles and pebbles of quartz, quartzite, and amphibolite. These showed scars from battering on one or more surfaces (Figure 88). Thirteen hammers were found at Tohopeka, three at the barricade, and eight at Nuyaka; they were the third most numerous stone artifact (behind projectile points and celt fragments) at the Horseshoe Bend sites. These artifacts could be grouped into two general size categories; large hammers ranged from about 8 to 12 cm in diameter and usually had a worn pit on one or both of the flatter surfaces (Figure 88, a and b). Small hammers, from 3 to 8 cm in diameter, exhibited finer and more even wear than the large hammers (Figure 88, d-g). The large hammers probably were used for crushing purposes (e.g., nut preparation), whereas the small hammer probably served most often as flint-knapping tools.

A single pestle, a pear-shaped quartz cobble with extensive wear

on the large end, was found in Area B at Nuyaka (Figure 88, c). The wear pattern on this artifact suggests that it was used with a rotary motion in a basin-shaped mortar.

A single mortar was found in Feature 3 at Nuyaka (see Chapter IV, Figure 71). This artifact consisted of a flat slab of quartzite (23.4 cm wide, 40 cm long, and 3.8 cm thick) with wear marks on both flat surfaces. The marks seemed to be oriented along the long axis of the slab. Three sherds found in association with this mortar were of the type Dadeville Plain.

There were four stone anvils, three at Tohopeka and one at Nuyaka. The three anvils from Nuyaka, were made, one each, from small slabs of muscovite gneiss, metasandstone, and chloritic schist. Two of these artifacts had a single worn pit on each opposing flat surface, while the third had two adjacent pits on the same surface. The anvil from Nuyaka, designated Feature 8 (see Chapter IV, Figure 74), had approximately ten small pits on the surface facing upward when it was uncovered. These tools probably were used to hold nuts for purposes of cracking and removing the shells.

Clay Artifacts
(other than pottery)

Clay artifacts from the Horshoe Bend sites were represented by pipe fragments, sherd discs, beads, and pottery coil fragments (Table 3). All of these artifacts, except possibly one of the pipe fragments, had paste and color characteristics similar to the Dadeville pottery.

Pipe fragments numbered 22--18 from Tohopeka and four from Nuyaka (Figure 89, a-e). The single fragment that appeared to have an Ocmulgee Fields paste was from Tohopeka. All of the fragments were rather small and consisted of both bowl and stem sections. Three of the bowls had flanges or fillets around the rims; another bowl was faceted. The stems appear to have been fairly short, with outer diameters from 1.5 to 4.0 cm, and hole diameters from 0.7 to 2.2 cm. These pipes conformed in general to the elbow types that are common on sites of the Mississippian period throughout the Southeast.

Two fragmentary sherd discs--one each from Tohopeka and Nuyaka--were recovered (Figure 89, k and l). Both specimens were made from Dadeville pot sherds. One disc was originally about 4 cm in diameter, and the other about 6 cm.

There were three clay beads--two from Tohopeka and one from Nuyaka. All three had Dadeville color and paste characteristics. One was an ovoid bead with an overall diameter of about 1.8 cm and a hole diameter of 0.5 cm (Figure 89, h); another was a fragment of a roughly spheroid bead having an overall diameter of about 1.0 cm (Figure 89, i); and the

Figure 87. Ground stone artifacts. a, Digging tool. b, Celt, c and d, Stone discs. e, Atlatl weight. f, Ear spool. g and h, Pipe fragments. i and j, Beads.

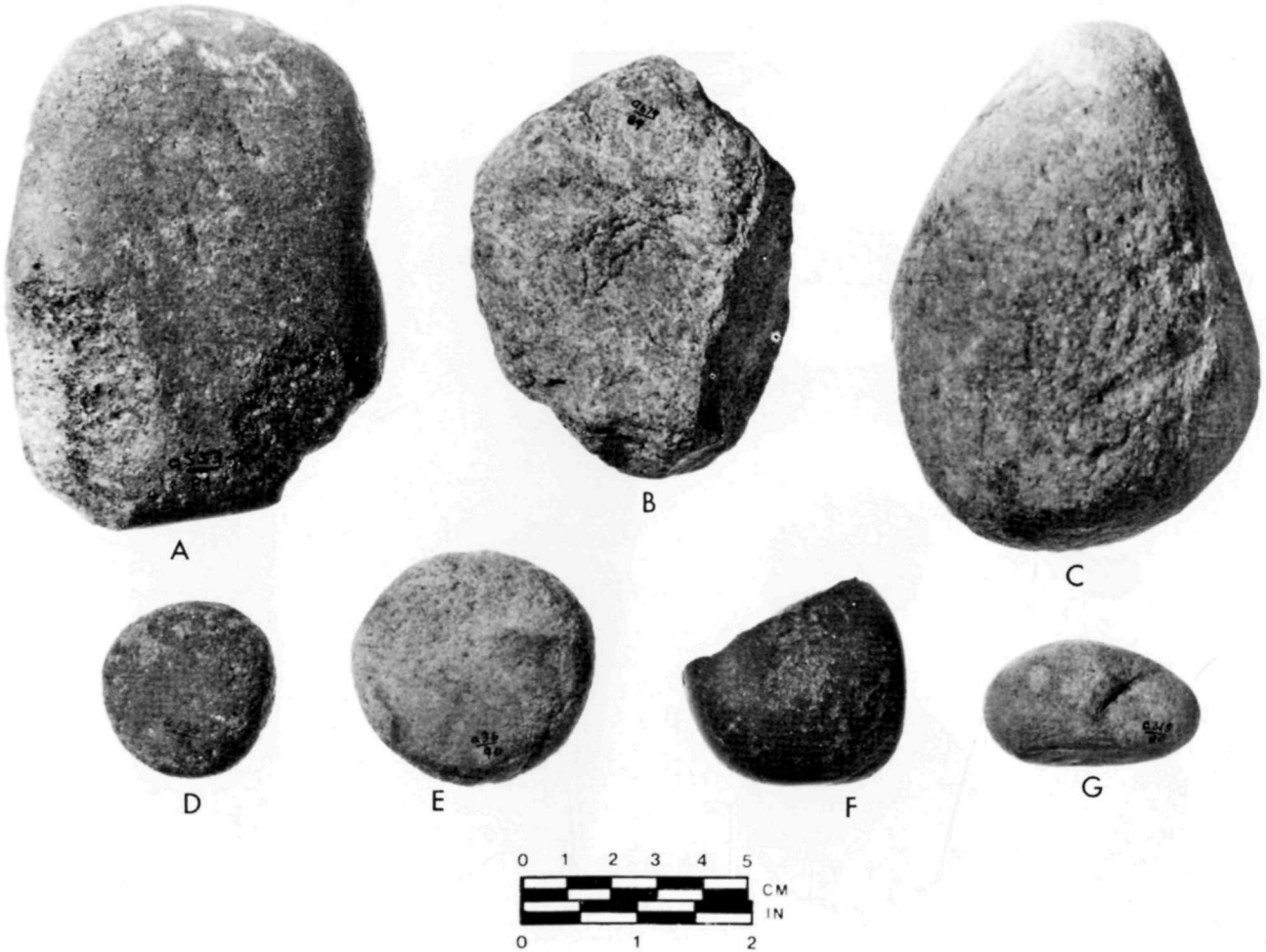

Figure 88. Rough stone artifacts. a and b. Large hammers. c. Pestle. d-g. Small hammers.

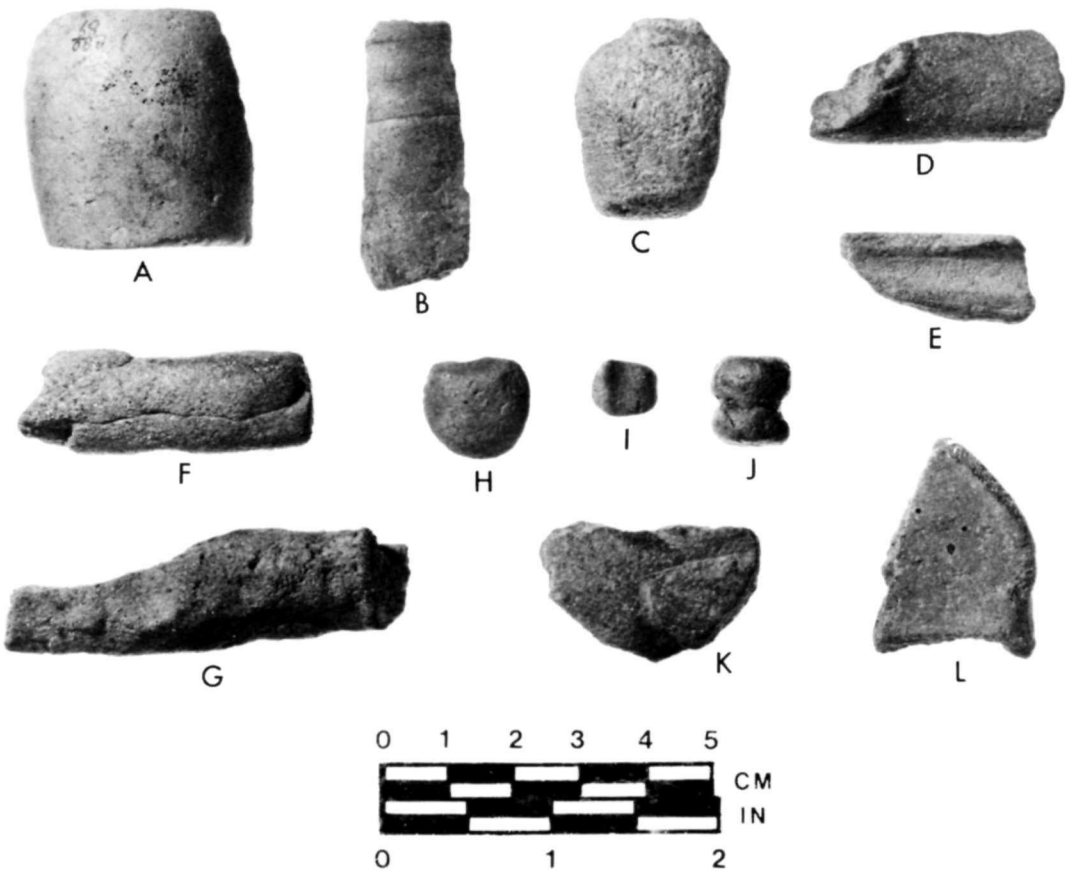

Figure 89. Clay artifacts. a-e. Pipe fragments. f and g. Coil fragments. h-j. Beads. k-l, Sherd discs.

third was a biolobed specimen with a length of 1.4 cm, a diameter of 1.2 cm, and a hole diameter of .02 cm (Figure 89, j).

The fired ceramic coil fragments were found at Tohopeka; both had Dadeville color and paste characteristics (Figure 89, f and g).

Location	Pipe fragment	Sherd disc	Bead	Coil fragment
Tohopeka				
Area A	1	--	1	1
Area B	10	1	1	--
Area C	5	--	--	--
Area D	1	--	--	--
Test Pits	1	--	--	1
Surface	--	--	--	--
Barricade				
Nuyaka				
Area B	3	--	--	--
Area B	1	1	--	--
Test Pits	--	--	1	--
Harrows	--	--	--	--
Surface	--	--	--	--

Clay Artifacts at the Horseshoe Bend Sites

Table 3

Pottery

Aboriginal pottery from the three sites is described, analyzed, and interpreted in the following section. The total sample consisted of 22,356 sherds -- 12,386 from Tohopeka, 9,937 from Nuyaka, and 33 from the Barricade.

In the laboratory, each sherd initially was described by paste, color, temper, thickness, surface finish, decoration, and form. Then, using these attributes, the sherds were grouped into series and type. Classifications were made according to standard nomenclature for the Southeastern United States (Ford and Griffin 1960).

At the next level of analysis, types and attributes were examined for vertical and horizontal distribution within each site, and for their relative frequencies between sites. These distributions then were tested for statistical significance.

From the results of the distributional analyses, it was possible to arrive at interpretations of the relative ages of the two main ceramic series, and to suggest both intrasite and intersite patterning of ceramic-related activities.

Fairbanks (1962a, 1926b) recognized "two major ceramic complexes" at the Horseshoe Bend sites. One complex consisted of a group of previously described historic Creek types, and the other was composed of a ware that he could not identify with any previously described types. This latter complex he named "Dadeville". Most of the ceramics from the 1973 excavations conformed to these two complexes (series) originally recognized by Fairbanks.

Dadeville Series (Figures 90, 91, and 92)

Dadeville sherds totaled 14,016 -- 4,256 sherds from Nuyaka and 9,760 sherds from Tohopeka. Fairbanks' (1962b:43) original type description of Dadeville Plain, the predominant type in the Dadeville Series, is given below. Additions or modifications to his description, determined from the 1973 samples, are enclosed in brackets.

Dadeville Plain

Paste:

Method of Manufacture: Sherd fractures suggest coil-and-scrape method.

Temper: Fine sharp sand, mica flakes. Mica probably present naturally in both local sands and clays [coarse temper particles occur occasionally; a few sherds tempered with sand containing abundant amphibolite.]

Texture: Fine granular [sometimes appears laminated]. Surfaces smooth, rarely show burnishing marks, mica usually on surface, surface sandy [erodes easily].

Hardness: Range 2.5-5.0, average 3.5.

Color: Most sherds chocolate brown to reddish brown, some grayish brown, but reddish tones predominate. Black fire clouds common. Core usually redder than surfaces. Interior usually reddish.

Surface Finish:

Modifications: Both surfaces well smoothed, with interior usually smoother than exterior. Exterior may show burnishing marks.

Appendages: Wide strap handle from lip to neck (1 case). One example each of rounded low knob on shoulder and one semicircular lug on lip with notched edge. [Infrequent small to medium strap handles from lip to shoulder on jars. More common is vertical, oval-shaped lug about 20 mm wide and 30-40 mm long. Infrequently this appendage is raised above the lip, giving the effect of a castellation. Some appendages show brush marks. Lips are usually plain (without notches) on vessels that have appendages.]

Form:

Body: Two vessel shapes have been identified. 1) Somewhat flattened globular bowl with collar [jar]. Diameter probably somewhat greater than body height, collar slightly flaring or rarely straight. 2) Flattened globular bowl.

Rim incurved.

Rim: On collared bowls [jars], rims are slightly flaring to straight. On flattened bowls, always [usually] incurved.

Lip: On collared globular bowls [jars] rim is [usually] rounded and always [usually] notched. The notches are sharp vertical cuts or round-based shallow grooves [or occasionally wide scallops]. The notching process usually produced a slight eversion of the lip surface [especially with scalloped form]. Lip surfaces usually rounded, rarely [sometimes] flattened. Notches about evenly divided between those at right angles to the vessel circumference, and those slanted to the left [one rim was fluted]. On simple bowls, lip is thinned, rounded, [Occasionally the lip is extended 3-4 mm at right angles to vessel wall.]

Bottom: Seems to be rounded in all cases with little or no thickening. [Most are nearly flat, infrequently rounded. Some show light brush mark or grass impressions. Average basal thickness is 9 mm.]

Thickness: Range 4 to 8 mm, average 5 mm. [Mode is 4.9 $\pm$ 1.2 mm at both Tohopeka and Nuyaka]

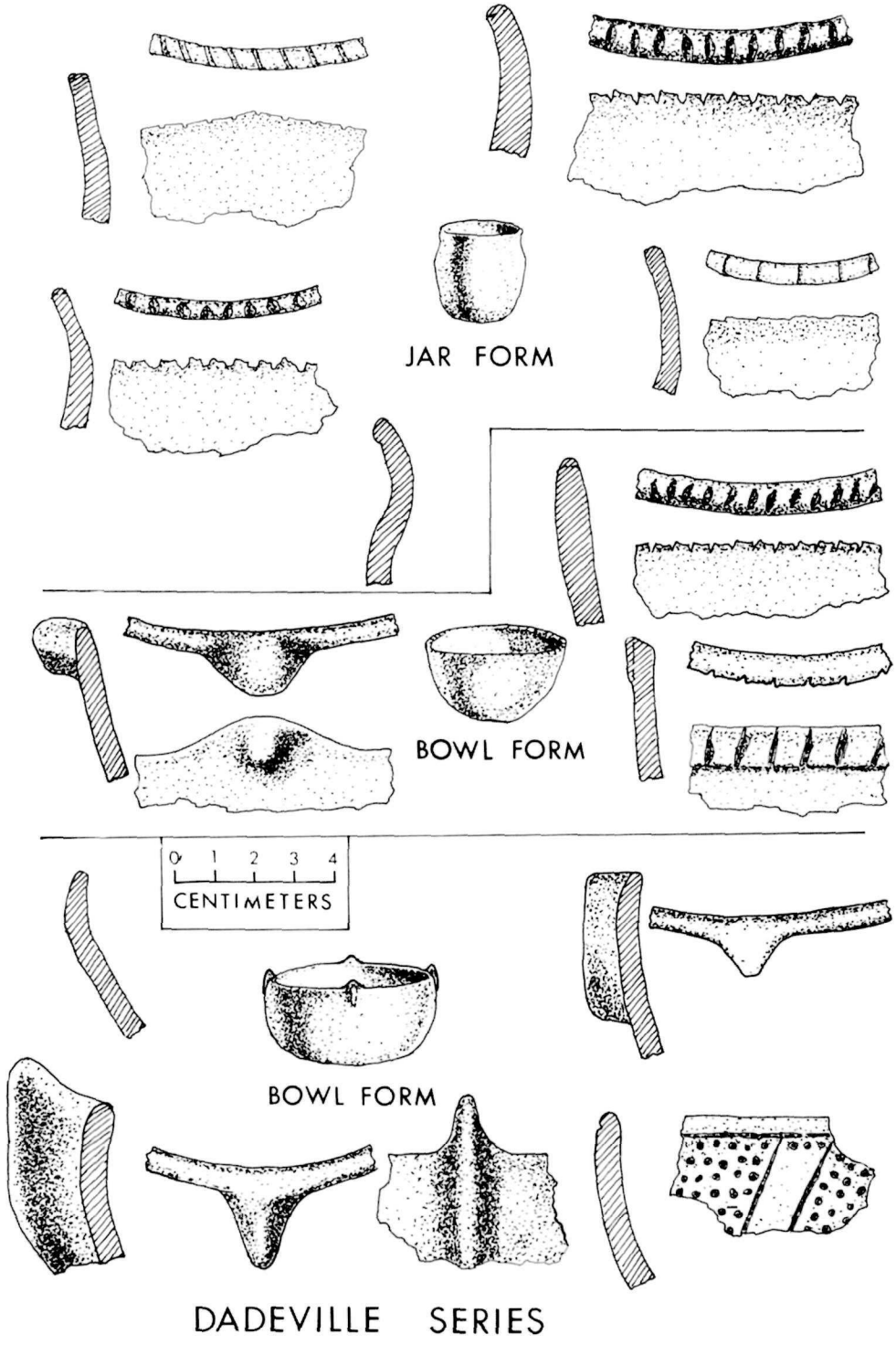

Figure 90. Vessel and Rim Forms of the Dadeville Series.

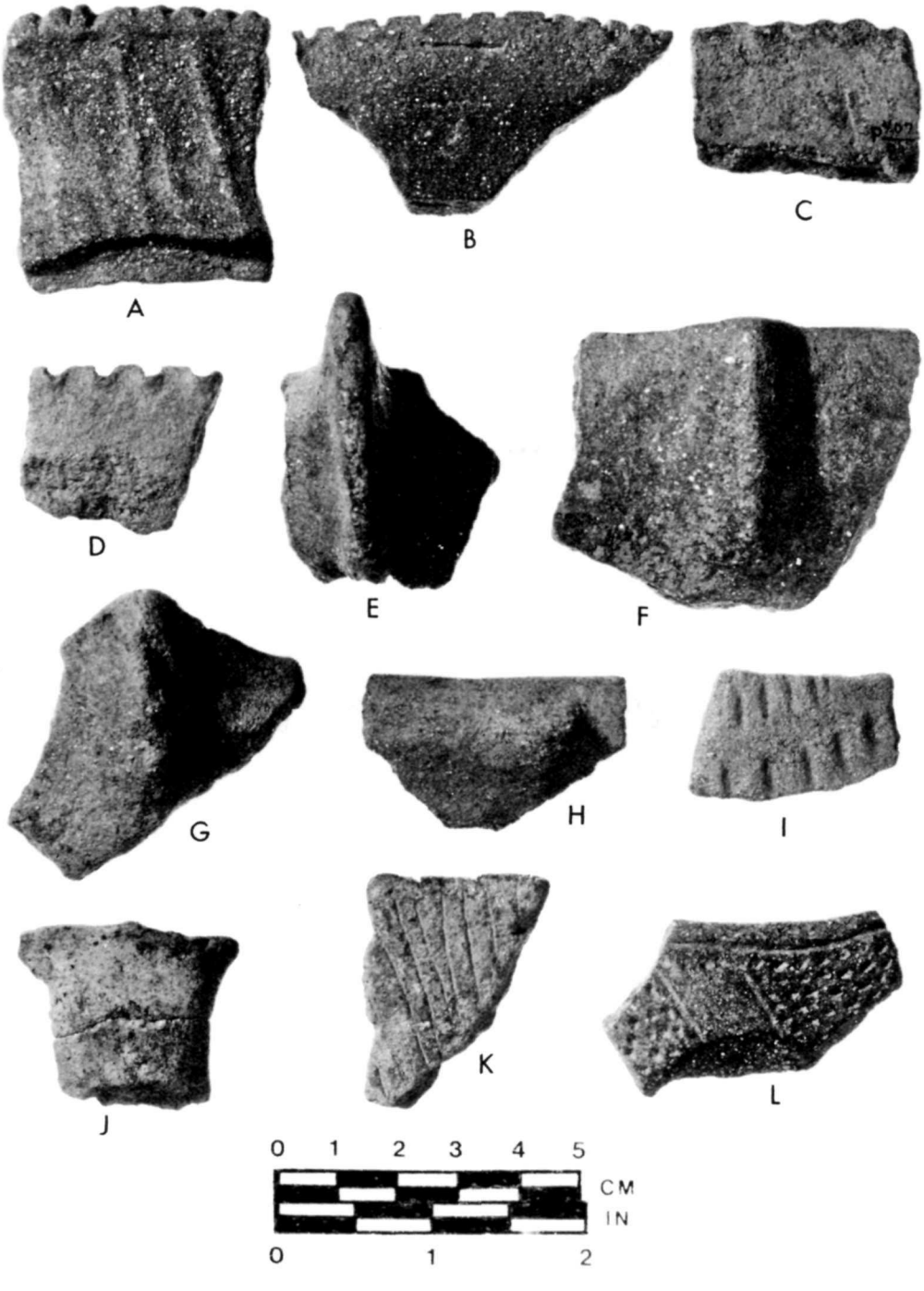

Figure 91. Dadeville sherds. a-h, Plain. i, Punctated. j, Handle. k, Brushed. l, Zone-punctated.

Figure 92. Part of a reconstructed Dadeville Plain vessel with notched rim.

Geographical Range: Known only from Tohopeka, Tp-1 [and Nuyaka, Tp-3], Horseshoe Bend, National Military Park, Tallapoosa County, Alabama.

Chronological Position: Below Historic Creek complex, probably ranges from about A.D. 1200 to the beginning of the final Mississippian incised ceramic complexes ca. A.D. 1400. [Probably A.D. 900-1200; radiocarbon date from Feature 18 at Nuyaka of A.D. 1045 ± 140 (GX3959), and compares with Bear Creek Plain in Central Alabama with date of A.D. 920 ± 105 (GX0599)].

Related Types: One sherd of very similar characteristics at Tohopeka had random ovate (fingernail?) punctates. This seems to be a related type and has been named Dadeville Punctated. [Compares to Calloway Plain (Chase 1966) from the upper Alabama River area; and to Bear Creek Plain (Dickens 1971:64-65), also from the upper Alabama River.]

In addition to the plain sherds there were 24 punctated sherds, 15 brushed sherds, and eight incised sherds, all with the same paste, temper, and color characteristics as Dadeville Plain. Although the numbers of sherds with these variant surface finishes were relatively small, they may be tentatively recognized as additional types in the Dadeville Series. In fact, Fairbanks (1962b:45) already had assigned the names "Dadeville Brushed" to six sherds from Tohopeka and "Dadeville Punctated" to one sherd from the same site.

Dadeville Punctated

This type was similar in all characteristics to Dadeville Plain, with the exception of decoration. One sherd had an angular zone-incised pattern with punctations. On most others, the punctations were loosely grouped with no apparent pattern. Some had rows of fingernail impression similar to Bear Creek Punctated (Dickens 1971:65).

Dadeville Incised

There were eight sherds of this type. One rim had a lightly incised design on the vessel interior. Usually, there was one or more horizontal, crudely incised lines near the rim on the exterior.

Dadeville Brushed

There were 15 sherds of this type. Most of the brush marks were shallow and irregular. One base was brushed near the sides but not on the bottom. Brushing has been identified in several Late Woodland and Early Mississippian contexts in central Alabama (Dickens 1971:72).

Ocmulgee Fields Series (Figures 93, 94, 95, 96, 97, 98, and 99)

Ocmulgee Fields sherds numbered 7,919 -- 5,295 sherds from Nuyaka and 2,624 sherds from Tohopeka. Fairbanks (1962b:42) placed the historic Creek incised pottery (approximately 52 sherds total) from the Horseshoe Bend sites in the type Childersburg Incised, although he referred to the historic Creek plain ware as Ocmulgee Plain. His reasons for choosing Childersburg Incised over Ocmulgee Fields Incised were stated as follows:

> It usually does not show the weak, careless incising so typical of Ocmulgee Fields Incised. The lip treatment lacks the elaborate extrusions so characteristic of the central Georgia specimens. It is highly similar to both Childersburg and Ocmulgee Fields Incised, with greater resemblance to the former.

Yet, in the same year, when he discussed Creek sites in central Alabama (1962c:65-66), he stated that the Alabama pottery resembled the Ocmulgee Fields complex and that any distinctions between the two probably only represented the effects of different clays. He continued:

> From the execution, the quality (which is a very subjective thing), it could not be distinguished from the Ocmulgee material except it is a lot neater and has a good deal of mica. There is a slight suggestion that the lip form which is generally extruded at Ocmulgee and other central Georgia sites, is much simpler in central Alabama.

After comparing the historic incised pottery from the 1973 excavations (425 sherds total) with the published descriptions and type collections of both Ocmulgee Fields Incised and Childersburg Incised (a type established on the basis of only 26 sherds), it became evident that there could be no basis for preferring the Childersburg designation over the Ocmulgee Fields designation for the Horseshoe Bend material. There are some obvious differences between the Ocmulgee Fields pottery at Horseshoe Bend and that from the type site, but these differences seem to be more quantitative than qualitative. The historic Creek pottery from Horseshoe Bend is described below within the framework of published type descriptions. This is followed by a discussion of differences between the present pottery and the original material from Ocmulgee Fields.

Ocmulgee Fields Incised

The description below is a revision by Mason (1963:314-316) of the original type description by Jennings and Fairbanks (1939:5). Mason examined 2,572 rim sherds from the Ocmulgee site.

Paste:
Method of Manufacture: Coiling.

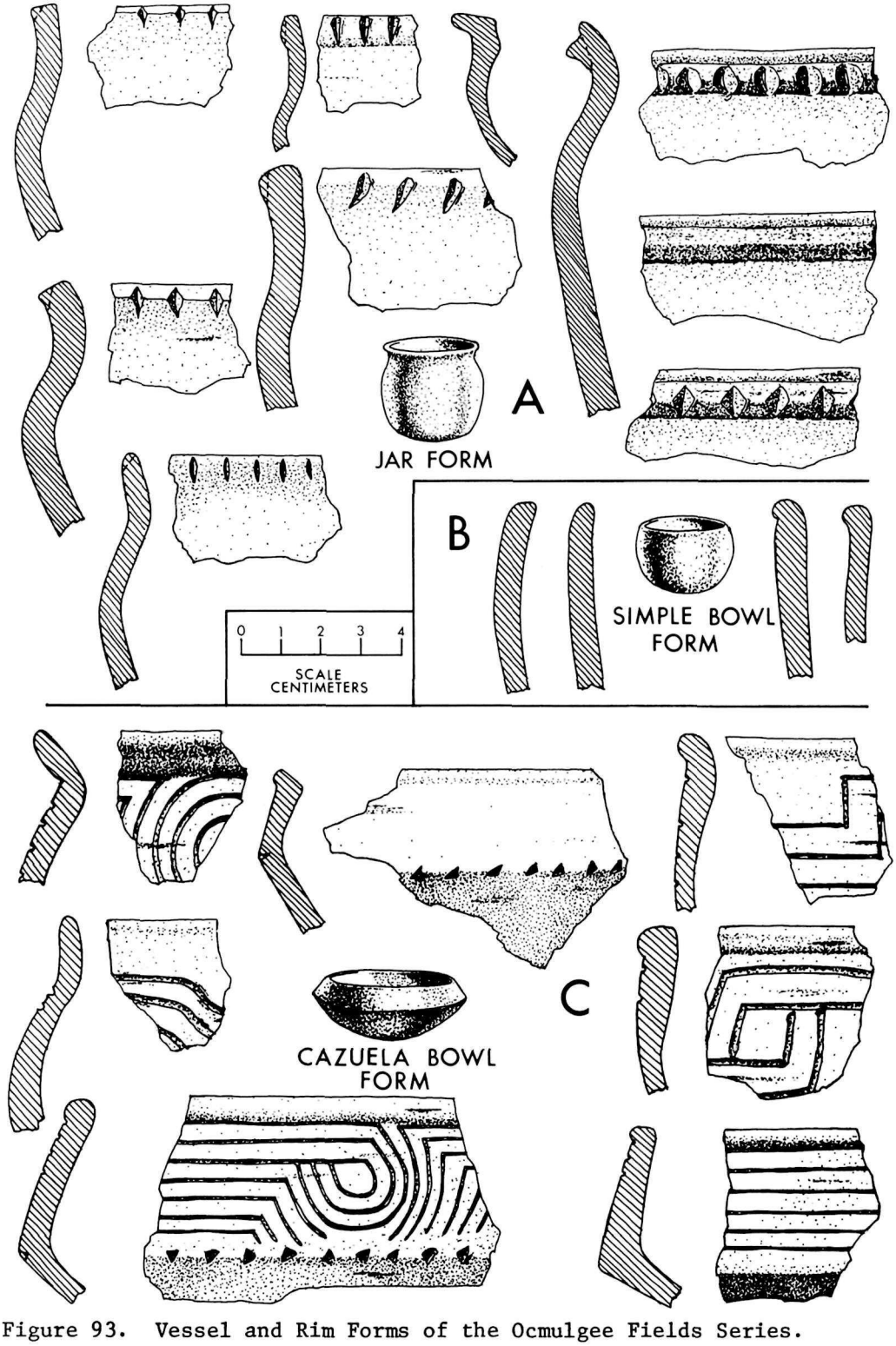

Figure 93. Vessel and Rim Forms of the Ocmulgee Fields Series.

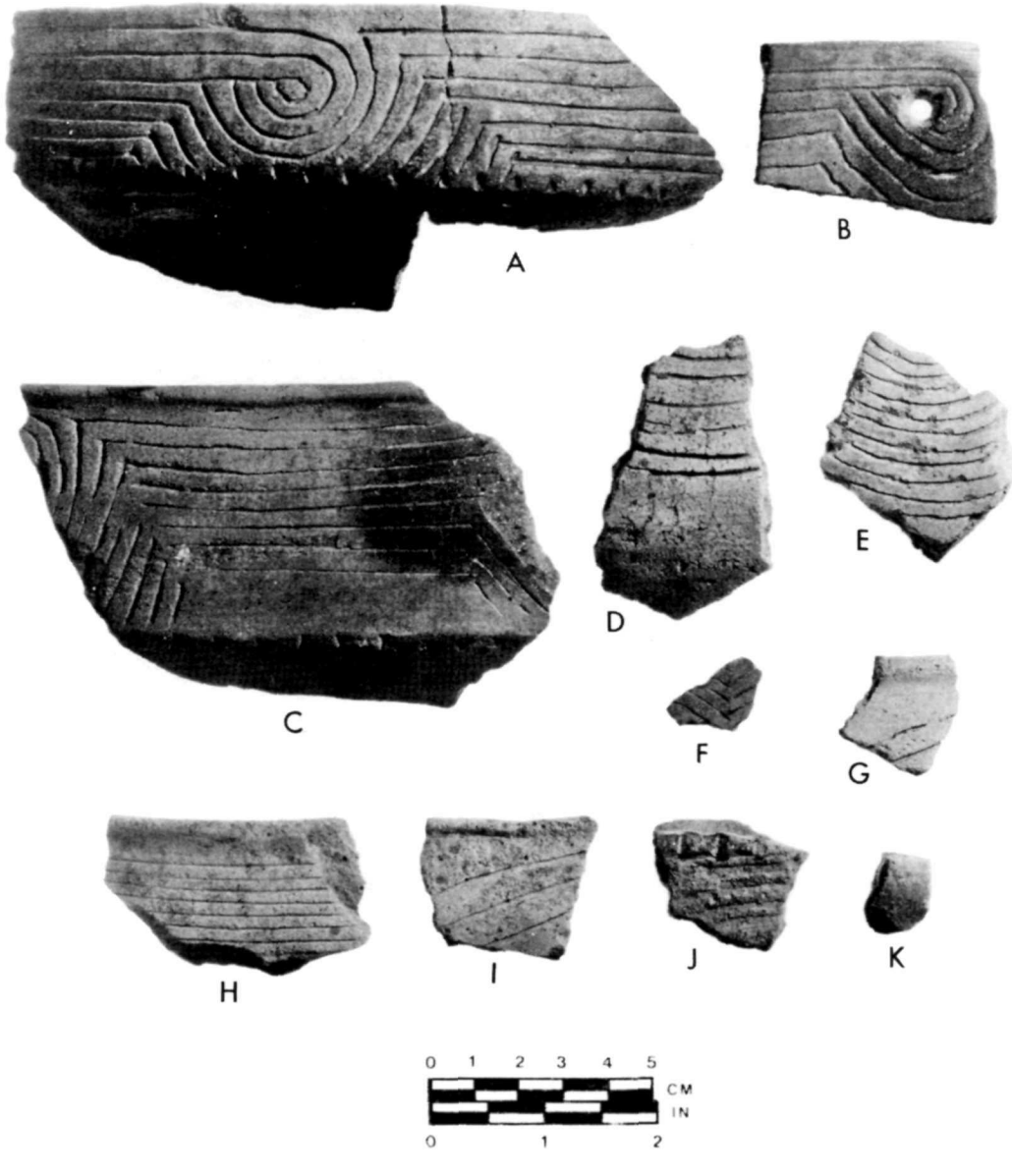

Figure 94. Ocmulgee Fields sherds. a-i, Incised. j, Complicated stamped. k, Red-filmed.

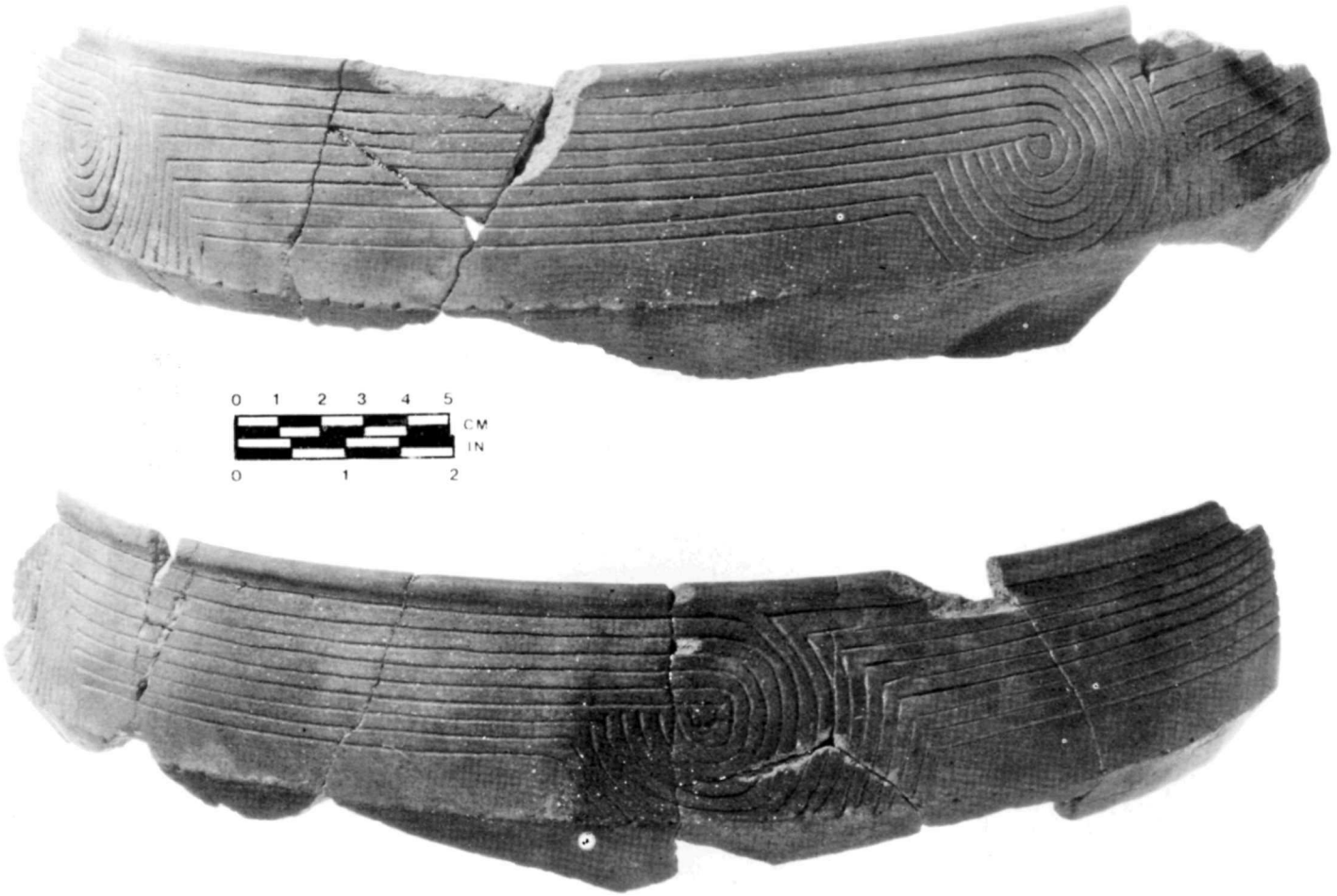

Figure 95. Rim portion of a partly reconstructed Ocmulgee Fields Incised vessel.

Temper: Grit, occasionally shell; fine to medium; abundant to very scarce.

Texture: Fine; sometimes ranging into coarse.

Hardness: 4.0-2.5.

Color: Buff-orange, gray or black; surfaces often mottled; fire clouding very common; cores dark brown or black.

Surface Finish:
Modifications: Surfaces smoothed; marks from smoothing tool present. Occasionally, bases of vessels are brushed.

Decoration:
Technique: Incising, some punctations or notches.

Design: Scrolls, interlocking lines, nested geometric figures, and other linear and curvilinear motifs. Execution ranges from very poor, careless, and incomplete to well-drawn and well-executed. Designs often smoothed over after incising. Notches or punctations are rarely present on cazuela shoulders.

Distribution: In rim area of cazuela bowls, interior surfaces of flaring-rimmed bowls, shoulders of globular ollas.

Form:
Rim: Carinated on cazuela bowls; some horizontal flaring rims; olla rims are almost vertical.

Lip: Cazuela lips thickened often with pronounced extrusions; some simple rounded or flattened lips. Flaring rims are thickened and rounded; olla lips are rounded, seldom thickened.

Body: Small cazuela bowls; shallow flaring-rimmed bowls; globular ollas with narrow orifices.

Base: Rounded on all three variations; some cazuelas, however, have flat bottoms.

Thickness: 3-7 mm.

Appendages: Notched or pinched rim strip added to the underside of flaring rims just below the lip; lugs added to bodies of flaring-rimmed bowls.

Geographical Range: Known for Lower Creek sites in Georgia and Alabama.

Chronological Position: From at least 1690 into the nineteenth century.

The Ocmulgee Fields incised sherds from Horseshoe Bend differ from the original type description in the following ways. The type description states that shell temper was occasionally present; there were no shell-tempered, incised sherds at Horseshoe Bend. At the Ocmulgee Fields site notches or punctations were only rarely present on the shoulders of incised cazuela bowls, whereas notches and small punctations were common on the Horseshoe Bend sherds (Figures 93, 94, and 95). Some cazuela bowls had punctations above the incised design, but below the rim; infrequently these bowls had no notches or punctations. Most punctations were triangular or wedge-shaped (Figure 95). There was one example with triangular punctations on the shoulder, where each impression was rotated 90 degrees from the previous impression. Another had short scratches instead of punctations at the shoulder. Rarely did the incising touch the punctations.

Execution of incising varied from neat to rather sloppy (Figures 93 and 94). The scroll motif, or occasional angular variations on the scroll, was most common. There was one example of a crude oval design. Many incised lines were no more than scratches, whereas others were so perfectly executed that it was difficult to determine if they were incised or stamped. Lines were usually spaced 1 to 2 mm apart, rarely as much as 6 mm. One sherd was incised with a double-pointed instrument to produce paired lines, and another had a drilled hole (for suspension or mending) 14 mm below the lip. The majority of the incised sherds were burnished, with occasional examples of smoothing over the incised decoration. There was one sherd from a vessel with an outflaring rim on which the incising was on the interior surface.

Ocmulgee Fields Plain

On Ocmulgee Fields Plain vessels, the rims were notched, pinched, or fingernail impressed along the outside of the lip (Figure 93, and 96, c) or had notched fillets just below the lip (Figure 93, and 96 a, b and e). On one example, the notches extended from the outside to the inside of the lip. Another example had the lip smoothed after being decorated. One rim had a mend hole 5 mm below the lip. Sometimes, very shallow tool marks were found near the lip. Occasionally, there were large quartz particles in the temper.

Rim sherds with fillets, or with pinched or notched lips, were more common at Nuyaka than at Tohopeka. One plain rim from Nuyaka had crude punctations below the lip, and another had a small strap handle. Several plain, undecorated rims had lips that extended outward at a sharp angle from the vessel wall. One plain rim had a castellation about five mm high and 15 mm wide.

Bases on plain vessels were rounded to almost flat. Two examples had a lump of clay added to the interior, probably for reinforcement. All bases were thicker than vessel walls.

Chattahoochee Brushed

Bullen's (1950:102) original type description for Chattahoochee Brushed, based on an analysis of 203 sherds from sites on the lower Chattahoochee and Flint rivers, is provided below. It is followed by a discussion of the brushed sherds from Horseshoe Bend.

Paste:
Method of manufacture: By some annular method of vessel building.

Temper: Sand and medium coarse grit rather abundant.

Texture: Coarse, lumpy, contorted.

Hardness: 3.5.

Thickness: 5-8 mm.

Color: Cores are white, light gray, or black. Surfaces are white, whitish-blue, and light gray, sometimes tan.

Surface Finish and Decoration: Interiors are well smoothed. Some smoothing of exteriors before brushing. Temper particles protrude on both surfaces. Exteriors brushed or scored, producing fine lines which vary from 0.2 to 1 mm in width. While irregularly applied, lines tend to parallel each other. Brushing may be limited to upper part of vessels, as plain sherds, otherwise the same, were found.

Filming: Vessels probably received a clay wash.

Form:
Shape: Unknown.

Rims: The three available are slightly thickened and two of them chamfered at outer lip.

Geographical Range of Type: Fairly abundant in lower and middle (Hurt, MS) Chattahoochee Valley and in southwestern Georgia. Four sherds were found at Lake Jackson, a Fort Walton site near Tallahassee (Griffin, MS). One sherd is known in the Gainesville area.

Chronological Position of Type: By seriation this type is post-

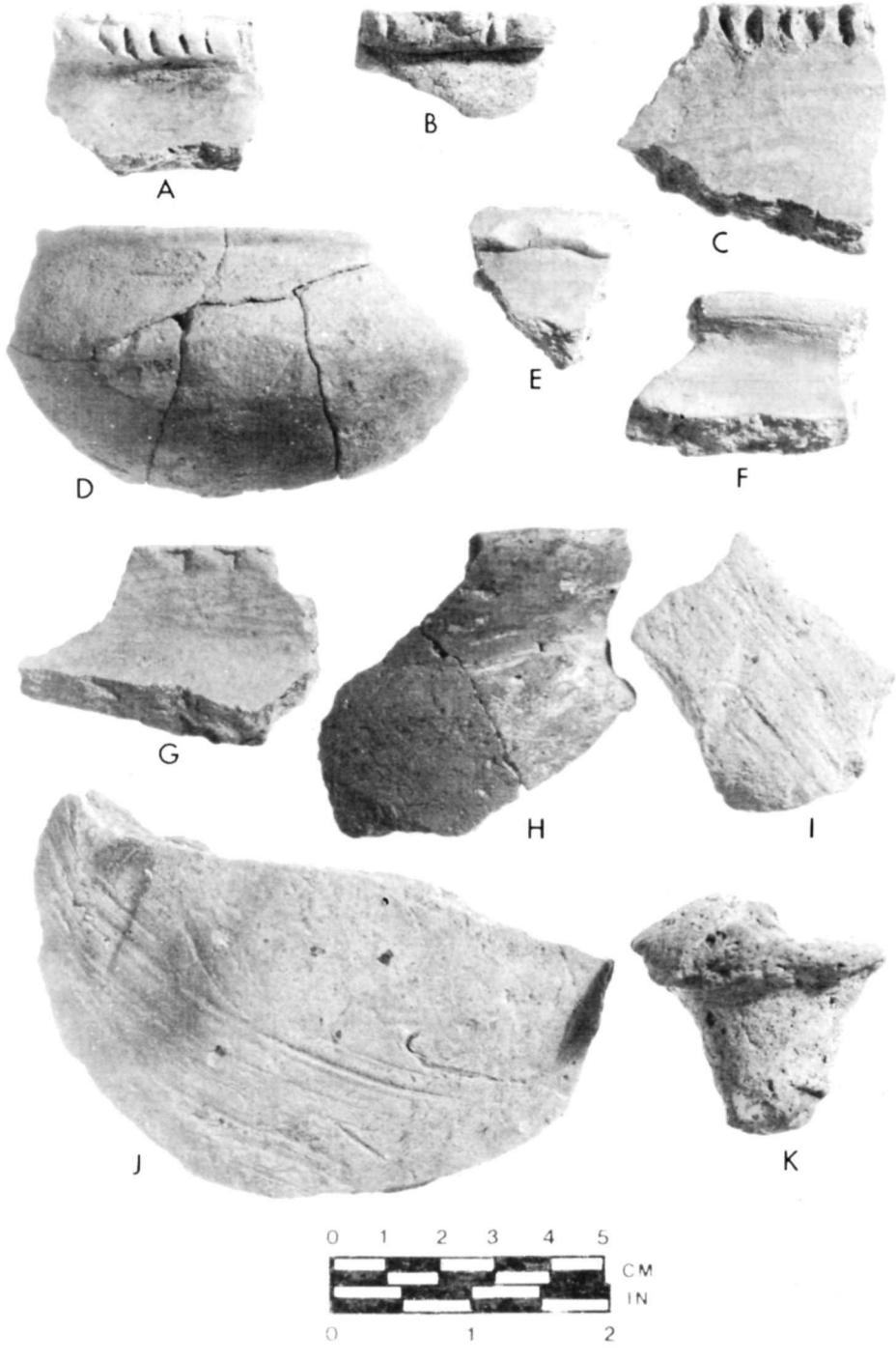

Figure 96. Ocmulgee Fields sherds. a-h, Plain. i and j, Brushed. k, Pottery trowel.

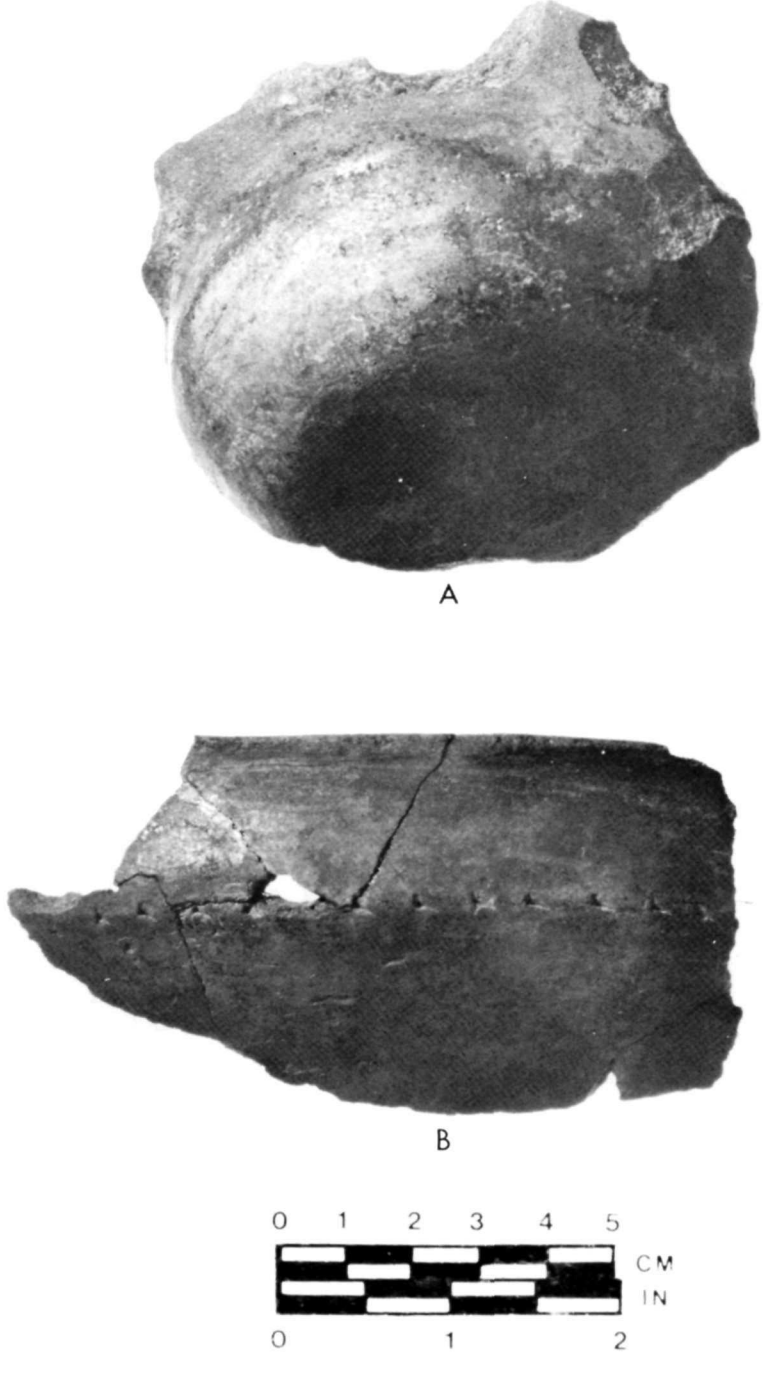

Figure 97. Ocmulgee Fields sherds. a, Flaring-rimmed plain bowl. b, Incurvate plain bowl.

Figure 98. Reconstructed Chattahoochee Brushed vessel.

Figure 99. Chattahoochee Brushed bowl sherds.

Fort Walton.

Relationship of Type: Related to Alachua Cob Marked of central Florida and Walnut Roughened of western Georgia.

The Chattahoochee Brushed sherds (3,252 total) from Horseshoe Bend did not conform in all respects to the original type description. Many of these differences probably were the result of divergent characteristics of the south Georgia and central Alabama clays. Temper usually was sand, infrequently grit. There were abundant mica inclusions. Temper particles rarely protruded on the vessel surface, and the texture was smooth. The wall thickness was 6.2 $\pm$ 1.0 mm. The whitish color described by Bullen was absent. On Horseshoe Bend sherds, the brushing usually did not extend above the shoulder of the vessel. Brushing near the bases was more irregular than on the walls. There was no "clay wash" on the Horseshoe Bend sherds.

Jar (Figure 98) and bowl (Figure 99) forms were present, with jars more common than bowls. Some rims had a series of notched or pinched indentations, which suggests that some of the rim sherds classed as Ocmulgee Fields Plain may have been from Chattahoochee Brushed vessels. The bases were rounded or almost flat, and always thickened.

The geographical range given by Bullen must be extended to the middle Chattahoochee Valley, and to the Tallapoosa-lower Coosa drainage. The chronological position is historic, but there may be antecedent forms in Dadeville Brushed and in other Late Woodland and Mississippian brushed pottery of central Alabama (e.g., Dickens 1971). There is also a possible relationship to Walnut Roughened of central Georgia (Willey and Sears 1952:6-7).

Miscellaneous Types

Complicated stamping was represented at the Horseshoe Bend sites by eight sherds from Nuyaka and two from Tohopeka. In all cases there were strong resemblances to the type Lamar Complicate Stamped (Jennings and Fairbanks 1939:2). At Nuyaka, there was also one red-filmed and two black-painted sherds. These conformed to the type description for Kasita Red Filmed (Jennings and Fairbanks 1940:9). One unclassified sherd was shell tempered, and another appeared to be check stamped.

Distributional Analyses

In the following section, data are presented on the vertical and horizontal distributions of ceramic types, and for attributes within types, at both intrasite and intersite levels. Empirical differences are tested for statistical significance (the degree to which they differ

beyond that expected by chance) by use of chi-square (Blalock 1960:212-221; and Spaulding 1953:305-313).

	Area A	Area B	Area C	Area D	Misc.	Totals
Dadeville						
Plain	1482	5277	1911	346	706	9722
Punctated	1	19	2	1	-	23
Brushed	2	8	-	-	-	10
Incised	2	2	-	1	-	5
Unidentified	-	-	-	-	-	-
Total	1487	5306	1913	348	706	9760 (79.0%)
Ocmulgee Fields						
Plain	26	760	32	105	52	975
Burnished Plain	1	106	-	20	-	127
Incised	-	81	-	8	8	97
Chattahoochee						
Brushed	20	1146	6	153	58	1383
Unidentified	-	36	-	4	2	42
Total	47	2129	38	290	120	2624 (21.0%)
Miscellaneous						
Lamar Complicated						
Stamped	1	1	-	-	-	2

Horizontal Distribution of Pottery Sherds from Tohopeka

Table 4

	Area A	Area B	Misc.	Totals
Dadeville				
Plain	2787	951	477	4215
Punctated	1	-	-	1
Brushed	3	1	1	5
Incised	2	-	1	3
Unidentified	32	-	-	32
Total	2825	952	479	4256 (44.5%)
Ocmulgee Fields				
Plain	1646	867	338	2851
Burnished Plain	61	33	-	94
Incised	149	140	37	326
Chattahoochee				
Brushed	1039	604	222	1865
Unidentified	125	22	9	156
Total	3020	1666	606	5292 (55.5%
Miscellaneous				
Lamar Complicated Stamped	-	6	2	8
Kasita Red Filmed	1	-	-	1
Check Stamped	-	-	1	1
Black Painted	2	-	-	2
Shell Tempered	-	-	1	1
Sand Tempered	127	246	-	373
Total	130	252	4	386

Distribution of Pottery Sherds from Nuyaka
Table 5

Ocmulgee Fields Plain	19
Ocmulgee Fields Burnished Plain	8
Ocmulgee Fields Incised	2
Chattahoochee Brushed	4
Total	33

Ocmulgee Fields Sherds from the Barricade Site
(there were no Dadeville sherds at this site)

Table 6

1000R760	Dadeville	Ocmulgee
0'-0.4'	4	-
0.4'-0.8'	121	6
0.8'-1.2'	54	3
below 1.2'	11	-
700R960	Dadeville	Ocmulgee
0'-0.4'	165	29
0.4'-0.8'	85	9
0.8'-1.2'	14	-
Below 1.2'	18	-

Vertical Distributions of Dadeville and Ocmulgee Fields Sherds in Test Squares 1000R760 and 700R960 at Tohopeka

Table 7

Area B	Dadeville	Ocmulgee
Plow Zone	1683	890
Sub-Plow Zone	988	298

Depth Distributions of Dadeville and Ocmulgee Fields Sherds in Area B at Tohopeka

Table 8

	Ocmulgee				Dadeville
Tohopeka	Plain	Burnished	Incised	Brushed	All Types
Area A	1.9	_	_	1.5	96.6
Area B	8.3	1.2	0.9	13.4	76.2
Area C	1.9	-	-	0.2	97.9
Area D	17.1	2.3	1.3	24.5	54.8
Nuyaka					
Area A	28.6	1.2	2.8	18.9	48.5
Area B	26.8	2.8	6.5	20.0	43.9

Percentage Distributions of Pottery Types by Excavation Areas at Tohopeka and Nuyaka

Table 9

	Ocmulgee Fields Plain	Ocmulgee Fields Burnished Plain	Ocmulgee Fields Incised	Chattahoochee Brushed
Tohopeka	975	127	97	1383
Nuyaka	2851	94	326	1865

Frequencies of Ocmulgee Fields Pottery Types at Tohopeka and Nuyaka

Table 10

In this test, the larger the differences between the observed and the expected (by chance) frequencies, the larger will be the value of chi-square. The total number of rows and columns in the data determines the "degree of freedom" (df); for example, a tow-by-two table has one degree of freedom, a two-by-three table has two degrees, etc. For a two-by-two analysis, Spaulding (1953:227) states that a chi-square value of more than 3.841, which gives a probability (p) of .05 is significant. This means that the observer can be 95 percent certain that the empirically demonstrated situation did not arise by chance. Interpretations made in the following discussions are based on a probability of .05, unless otherwise stated.

The relative temporal relationship between the Dadeville and Ocmulgee Fields pottery series was determined from three sets of data. The first two sets consisted of the vertical distributions of the two pottery series in squares 1000R760 and 700R960 at Tohopeka (Table 8). In these squares, there was moderate depth to the cultural deposits but little erosional disturbance. The third set of data consisted of the depth distributions of the two series in Area B at Tohopeka (Table 9).

The three sets of data all suggested a tendency for Dadeville Series sherds to be distributed at lower levels than the Ocmulgee Series sherds. These distributions were evaluated for significance by use of the chi-square test. The results of these tests are presented as follows:

1. Distribution by depth of Dadeville and Ocmulgee series in 1000R760 at Tohopeka (Table 8):

   df = 1 chi-square = 5.0 p = .05

   Conclusion: The Dadeville Series is distributed significantly deeper than the Ocmulgee Series and consequently is older.

2. Distribution by depth of Dadeville and Ocmulgee series in 700R960 at Tohopeka (Table 8):

   df = 1 chi-square = 3000 p = .001

   Conclusion: The Dadeville Series is distributed significantly deeper than the Ocmulgee Series and consequently is older

3. Distribution by depth of Dadeville and Ocmulgee series in Area B at Tohopeka (Table 9):

   df = 1 chi-square = 1250 p = .001

   Conclusion: The Dadeville Series is distributed significantly deeper than the Ocmulgee Series and consequently is older.

To further demonstrate the relative chronological positions of the two series, each of the excavation units--four from Tohopeka and two from Nuyaka--was treated as a separate site and was arranged in a seriation. The seriation diagram (Figure 100) suggests that an inverse relationship exists between the distribution of the two series.

The horizontal distribution of Ocmulgee Series sherds in Area A, the largest excavation unit at Tohopeka was computed. This distribution has already been presented in graphic form in Figure 50, Chapter III, where it was compared with the distributions of trade artifacts and postmolds. There was a definite clustering of this pottery in the central portion of the area, and possibly a second clustering, partly revealed, in the west end of the area. The distribution is again plotted, this time as an isometric diagram, in Figure 101. Such plottings of the horizontal distribution of specific artifact forms could be useful in defining activity areas (and possibly specific house locations) at both village sites.

An important aspect of the ceramic analysis was to examine and evaluate intersite differences in the historic Creek pottery from Horseshoe Bend. The sample from the barricade site was too small to be included in this comparison. To follow, therefore, are presentations of the statistics for distributions of types and selected attributes of the Ocmulgee Field series, and chi-square tests of the frequencies observed, at Tohopeka and Nuyaka.

Table 10 contains the frequencies of the four types in the Ocmulgee Fields Series at the two village sites. These statistics demonstrate that there is less plain and incised pottery and more brushed and burnished pottery at Tohopeka than at Nuyaka. These differences were tested for statistical significance:

3. Distribution of Ocmulgee Fields Plain versus Chattahoochee Brushed. This was tested because it was apparent that at Tohopeka brushed sherds were more numerous than at Nuyaka, while plain sherds were less numerous.

   df = 1 chi-square = 56 p = .01

   Conclusion: There is a significant shift from plain pottery to brushed pottery from Nuyaka to Tohopeka.

4. Distribution of Ocmulgee Fields Burnished Plain versus Ocmulgee Fields Incised. This was tested since it was apparent that at Tohopeka burnished sherds increased, despite the fact that most of the incised pottery at both sites was burnished.

   df = 1 chi-square = 69 p = .01

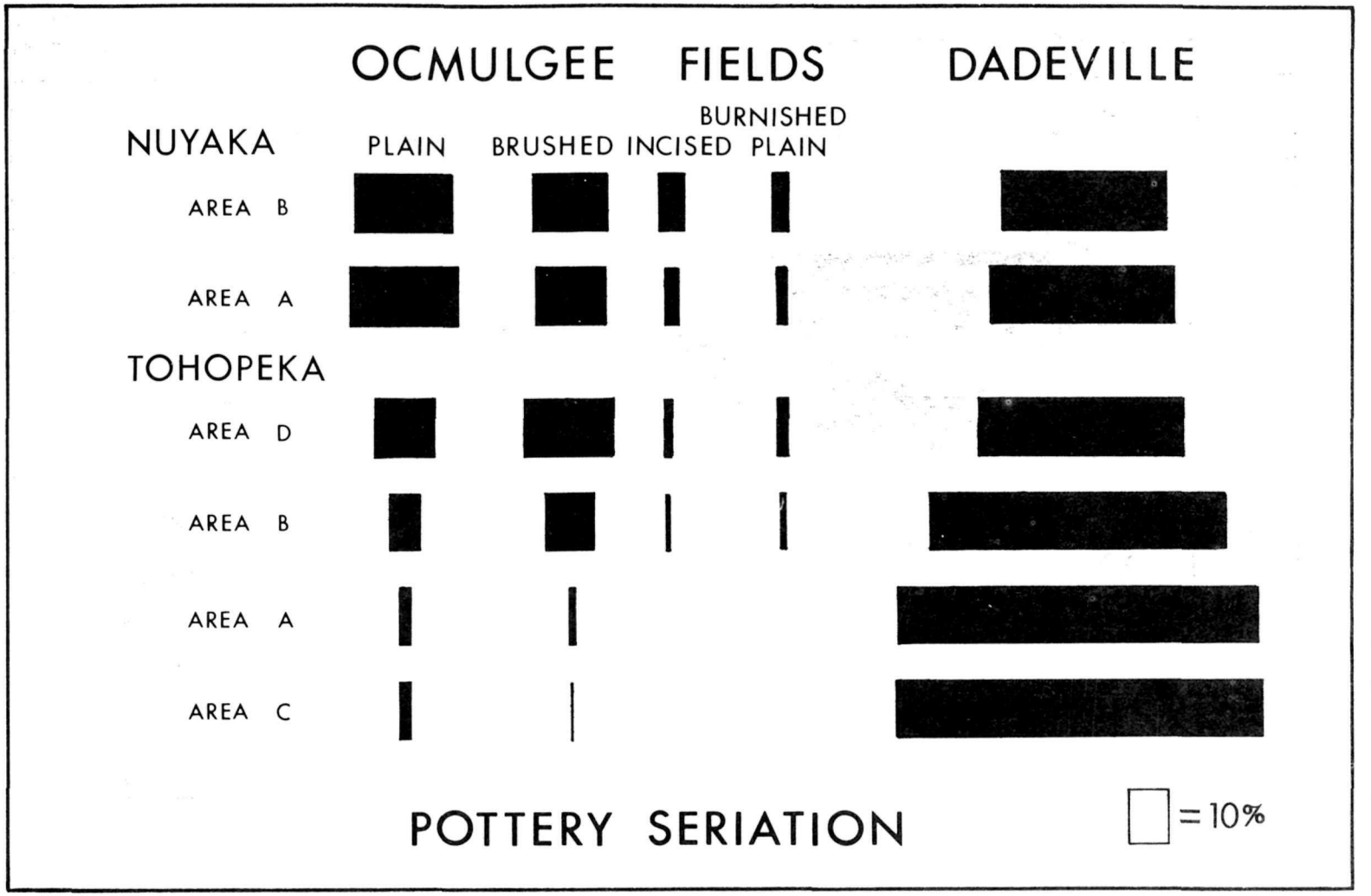

Figure 100. Seriation of Ocmulgee and Dadeville Series Sherds by Excavation Areas at Nuyaka and Tohopeka.

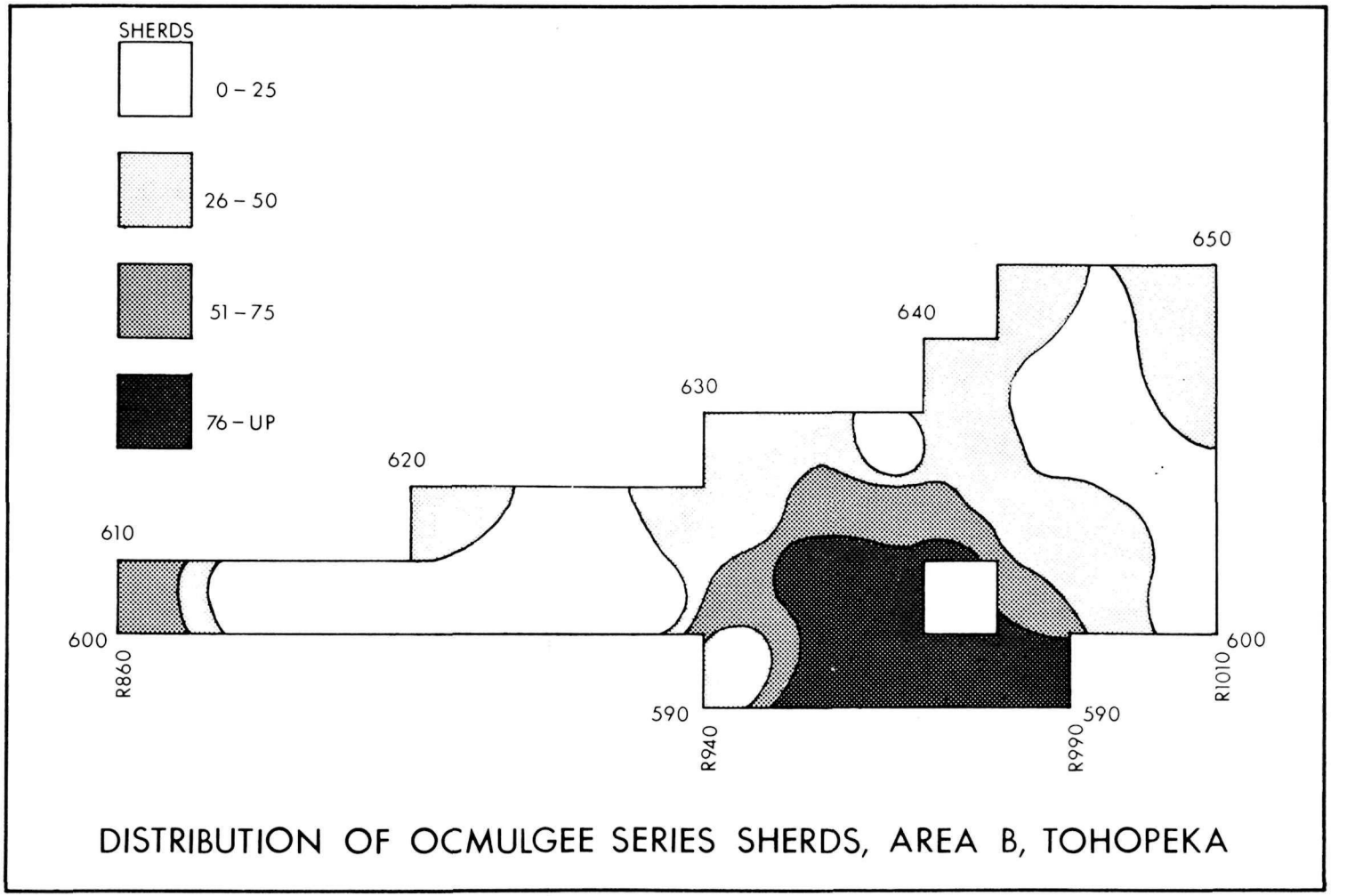

Figure 101. Isometric Diagram Depicting the Distribution of Historic Creek Pottery in Area B at Tohopeka.

Conclusion: There is a significant shift from incised pottery to burnished plain pottery from Nuyaka to Tohopeka.

The greater amounts of brushed and burnished plain pottery at Tohopeka, which were accompanied by lesser amounts of plain and incised pottery, may be interpreted several ways. Perhaps they represent temporal distinctions; i.e., increase in the popularity of the former at the expense of the latter in the maximum of 36 years (1777-1813) that could have separated the two occupations. However, if one views the situation from a functional rather than a temporal standpoint, another interpretation is possible. A selection based on function, for example, might account for the differences observed.

If we can view the brushed jars and bowls as a "utilitarian" ware (undecorated containers used for carrying, storage, and cooking purposes) and the incised cazuela bowls as a "fancy" ware (decorated containers used for display and special serving purposes), then we might interpret the increase of brushed pottery and the decrease of plain and incised pottery as a material manifestation of the different behavioral patterns at the two village sites. At Nuyaka, a stable and relatively peaceful village prior to 1813, one would expect the behavior associated with pottery to reflect a "normal" social pattern, where there would be a need for both utilitarian and fancy vessels. At Tohopeka, however, the social setting was far from normal. Here, mostly young males (non-potters) lived in a temporary refugee-military encampment. One would expect that pots brought into such a setting would have been selected for utilitarian purposes; the fancy ware would have been less necessary, and perhaps out of place (only the increase in burnished pottery at Tohopeka does not seem to fit the pattern described above).

In addition to the distributions of types (primarily based on surface finish), such attributes as rim shape, rim decoration, vessel thickness, and orifice diameter (the latter two considered to be related to overall vessel size) also were tabulated and their distributions tested for significance. It was hypothesized that if there had been a selection for utilitarian vessels at Tohopeka, one would expect the pots at that site to have less rim decoration, more excurvate rims (i.e., more jars), and larger overall size (greater orifice diameters and thicker vessel walls).

A study of the Ocmulgee Fields Plain rims showed that there were three basic profiles--incurvate, excurvate, and straight (Figure 93) and that these could be either decorated (notches, flutes, etc.) or undecorated. The distributions of this data are presented in Table 11. Frequencies in the rim data were tested for significance using chi-square.

5. Distribution of rim forms for decorated rims at Tohopeka and Nuyaka.

df = 2 chi-square = 5.40 p = .07

Conclusion: The confidence level is not acceptable. However, if a small number of incurvate rims from each site are ignored, then the results are significant--df = 1, chi square = 4.4, and p = .04 --from which one may conclude that there is an increase in excurvate decorated rims from Nuyaka to Tohopeka.

6. Distribution of rim forms for undecorated rims at Tohopeka and Nuyaka.

   df = 2 chi-square = 9.33 p = .01

   Conclusion: There is an increase in excurvate, undecorated rims from Nuyaka to Tohopeka.

7. Distribution of decorated versus undecorated rims on Ocmulgee Fields Plain pottery at Tohopeka and Nuyaka.

   df = 2 chi-square = 8.3 p = .004

   Conclusion: There is an increase in undecorated plain rims at Tohopeka [also, the filleted rim, rather common at Nuyaka, is missing altogether at Tohopeka].

Body sherd thicknesses for a systematic random sample of Ocmulgee Fields Plain sherds are given in Table 12, Ocmulgee Fields Incised in Table 13, and Chattahoochee Brushed in Table 14.

Frequencies in body thickness were tested for significance using chi-square.

8. Difference in thickness of body sherds of Ocmulgee Fields Plain between Tohopeka and Nuyaka.

   df - 4 chi-square = 10.02 p = .04

   Conclusion: There is an increase in the thickness of Ocmulgee Fields Plain vessels from Nuyaka to Tohopeka.

9. Difference in thickness of body sherds of Ocmulgee Fields Incised between Tohopeka and Nuyaka.

   df = 5 chi-square = 8.70 p = .20

   Conclusion: Although the desired confidence level is not reached, there is a tendency for Ocmulgee Fields Incised vessels to be thicker at Tohopeka than at Nuyaka. The test results can be attributed, at least partly, to the small number of incised sherds at Tohopeka.

10. Difference in thickness of body sherds of Chattahoochee Brushed between Tohopeka and Nuyaka.

	Incurvate	Excurvate	Straight
Decorated			
Tohopeka	1	20	2
Nuyaka	7	42	31
Undecorated			
Tohopeka	10	53	21
Nuyaka	30	48	33

Distribution of Plain Rim Forms at Tohopeka and Nuyaka

Table 11

Thickness in mm	Tohopeka	Nuyaka
3-4	12	22
5	30	73
6	57	71
7	44	70
8	38	31
9-11	21	19

Body Sherd Thickness for Ocmulgee Fields Plain at Tohopeka and Nuyaka

Table 12

Thickness in mm	Tohopeka	Nuyaka
3-4	0	20
5	13	81
6	28	89
7	20	65
8	6	23
9-11	2	9

Body Sherd Thicknesses for Ocmulgee Fields Incised at Tohopeka and Nuyaka

Table 13

Thickness in mm	Tohopeka	Nuyaka
3-4	1	3
5	12	33
6	44	65
7	82	73
8	30	40
9-11	8	11

Body Sherd Thicknesses for Chattahoochee Brushed at Tohopeka and Nuyaka

Table 14

df = 5 chi-square = 9.36 p = .10

Conclusion: Although the desired confidence level is not reached, there is a tendency for Chattahoochee Brushed vessels to be thicker at Tohopeka than at Nuyaka.

Only a few Ocmulgee Fields vessels (e.g., Figures 95 and 98) were complete enough for direct measurement of orifice diameter. However, the diameters of larger rim sherds could be estimated by application of a simple formula. The procedure was to draw the curvature of the rim sherd, using the vessel interior. Then, draw a chord across the curvature (X), bisect the cord, and at this point measure the distance from the cord to the arc originally drawn for the rim sherd (Y). Thus, the formula for determining vessel diamter is $D = X^2/4Y+Y$. The diameters obtained from a systematic random sample of rim sherds from Tohopeka and Nuyaka are given in Table 15.

Diameter	Tohopeka	Nuyaka
8-29 cm	7	9
30-81 cm	7	2
Total	14	11

Orifice Diameters of Ocmulgee Fields Vessels at Tohopeka and Nuyaka

Table 15

11. Differences in orifice diameters of Ocmulgee Fields vessels between Tohopeka and Nuyaka.

df = 1 chi-square = 1.50 p = .30

Conclusion: Although the desired confidence level was not reached, there was a slight tendency for vessels to have larger orifices at Tohopeka than at Nuyaka.

In the six tests on rim form, vessel thickness, and orifice diameter, three of the relationships were significant. The three others, although not at the acceptable confidence level, did show tendencies that would support the original hypothesis concerning a selection for utilitarian vessels at the Tohopeka site.

Areal and Temporal Relationships

Little is known about the areal extent of the Dadeville Series. So far it has been reported in the literature only for the Horseshoe Bend sites. There are some similarities in vessel form, surface finish, paste, and color, to the Bear Creek types (Dickens 1971:61-66) and the Tensaw Creek and Calloway types (Chase 1966:91-97), all found on sites along the upper Alabama River. A single radiocarbon determination of A.D. 1045 ± 150 (GX3959) has been obtained on charcoal from Feature 18 at Nuyaka, and the Bear Creek Series has been dated A.D. 920 ± 105 (GX0599) at the Bear Creek site in Autauga County, Alabama. On the basis of these dates, together with the presence of Mississippian traits, such as handles, nodes, and castellations, a temporal placement for the Dadeville Series in the Early Mississippian period (c.a. A.D. 900 - 1200) is probable.

Ceramic complexes similar to the historic Creek complex at Horseshoe Bend have been identified at other sites in eastern Alabama and western Georgia. The Cottonton Site, (DeJarnette 1975:185), located on the Chattahoochee River east of Cottonton, Alabama, contained sherds of Ocmulgee Fields Incised, Ocmulgee Fields Plain, Chattahoochee Brushed, and Kasita Red Filmed. The larger numbers of brushed sherds in the upper levels, suggested an "increased popularity of the type during the more recent occupation of the site."

The Childersburg site (DeJarnette 1960), located at the junction of the Coosa River and Talladega Creek in Talladega County, Alabama, with an occupation in the late seventeenth and early eighteenth centuries, contained a small amount of sand-tempered pottery similar to Ocmulgee Fields but with distinctions that led to the establishment of the new types Childersburg Plain and Childersburg Incised. Larger amounts of similar pottery with shell temper was named McKee Island Plain and McKee Island Incised.

The site of Fort Toulouse (Heldman 1973:99-121), located at the confluence of the Coosa and Tallapoosa Rivers, southwest of Horseshoe Bend, contained a small amount of shell-tempered pottery (probably from the 1500-1717 period or from earlier Mississippian occupations), and a larger assemblage of sand-tempered and grit-tempered pottery, probably from a late eighteenth-century Creek occupation. The latter group, consisting of plain, brushed, and incised sherds (in that order of frequency), possessed many attributes similar to the Ocmulgee Fields wares from the Horseshoe Bend sites. There was, however, more variety in the incised motifs than at Horseshoe Bend.

Pottery from the Fort Mitchell site in Russell County, Alabama (Chase 1974:3,23), occupied from 1817 to 1838, was mostly brushed or plain burnished, but sometimes was painted red within incised zones.

At the Ocmulgee Old Fields site, located on the Ocmulgee River in central Georgia, and occupied from 1685 to 1715, four pottery types were

defined: Ocmulgee Fields Plain, Ocmulgee Fields Incised, Walnut Roughened, and Kasita Red Filmed (Fairbanks 1956:48). Mason (1963:191-195) has identified four basic design groups for the incised ware: scrolls, guilloches, nested geometric figures, and miscellaneous. Both Fairbanks (1962a:51) and Mason (1963:191-195) have commented on the poorly executed or smoothed-over treatment of the incising. The Horseshoe Bend incising usually was neatly executed, and was only occasionally smoothed-over. The scroll design, or simplified variations on the scroll, was dominant.

The Kasita Site, on the Chattahoochee (Willey and Sears 1952:3-18), dated 1715-1836, contained Ocmulgee Fields Plain, Ocmulgee Fields Incised, Chattachoochee Brushed, and Kasita Red Filmed. More brushed pottery was found at Horseshoe Bend than at Kasita, with 55.5 percent at Tohopeka and 36.3 percent at Nuyaka, as compared with 28.7 percent at Kasita.

At the Abercrombie Site, on the Chattahoochee River near Phenix City, Alabama, DeJarnette (1975:61-198) discovered a ceramic complex that he placed in a subphase of the Historic Period earlier than Ocmulgee Fields. He established a new type, Abercrombie Incised, which has grit, shell, or grit-and-shell temper. The incising is usually neater than on Ocmulgee Fields Incised, and the rim treatment on some Abercrombie Plain vessels is identical to the filleted type on the plain pottery from Nuyaka.

It has been argued (e.g., Fairbanks 1946, 1952; Mason 1963) that Lamar ceramics are ancestral to Ocmulgee Fields ceramics. This interpretation has contributed to a widely held notion that there was a direct developmental connection between prehistoric Lamar culture and historic Upper Creek culture. However, the incised cazuela bowl, which has one of the broadest distributions of any ceramic form in the Southeast, seems to be the only strong parallel in the Lamar and Ocmulgee Fields assemblages. On the other hand, complicated stamping, the hallmark of Lamar, is missing at most Upper Creek sites. Some archaeologists have explained this lack of complicated stamping in historic Upper Creek assemblanges by suggesting that "the Cherokee to the north preserved Lamar forms after the Creeks abandoned them" (Fairbanks 1953: 22), or by speculating that complicated stamping was replaced by brushing as the styles moved from east to west (Fairbanks 1958:53-64; Wauchope 1966:18).

Following their work at the Kasita site, an historic Creek town on the Chattahoochee River, Willey and Sears (1952:12, 16-17) observed that the only Lamar trait in their ceramics was the fluted rim strip. They concluded that Upper Creek culture probably developed in the Coosa-Tallapoosa area and later spread to the east, rather than developing in central Georgia spreading to the west. However, at the time of their writing, little was known about the late prehistoric ceramics of the Coosa-Tallapoosa area. They stated that:

> Until a [ceramic] unit which has some length in time has been located, one in which we can see a fully prehistoric complex developing to the historic one through the addition of the brushing treatment, we will not know [the origins of Upper Creek culture]. Certainly such a unit or units exists, and certainly if we wish to work out the history of these tremendously important groups, they will be found and the evidence published (Willey and Sears 1952:17).

The Dadeville Series contains both bowl and jar forms comparable to those of the Ocmulgee Fields Series. Only the cazuela form (probably a late development) seems to be missing in Dadeville. The brushed surface finish, previously thought to have been derived from Walnut Roughened of central Georgia, has now been identified for the central Alabama area by as early as ca. A.D. 900-1000. The notched and fluted rims on Dadeville pottery also can be viewed as ancestral to similar rim treatments on Ocmulgee Fields pottery. And finally, since Dadeville and other late prehistoric pottery of central Alabama contain almost no complicated stamping, it would be more secure to infer that the Upper Creek pottery tradition never included that kind of surface finish than to speculate that it was lost or replaced.

One cannot deny that Lamar potters had strong influence in the Southeast, but it is no longer necessary to look to Lamar for all the antecedent traits of Upper Creek ceramics. It is even possible to suggest that the ceramics of the Upper Creek Indians were derived from a tradition that was at least partly indigenous to the Coosa-Tallapoosa-Alabama River area.

CHAPTER VI

EUROPEAN ARTIFACTS

by
Linda F. Carnes
(with a section on glass trade beads by Marvin T. Smith)

A total of 453 European artifacts was recoverd in the excavations at Horseshoe Bend. These were items that either had been traded to the Indians in finished form or had been fashioned by them from European materials (usually reworked trade goods). In the following section, these artifacts are described and interpreted.

Arms and Ammunition

Seven metal artifacts from the two village sites were identified as gun parts (Figures 102 and 103). These consisted of one flintlock cock screw, two pieces of flintlock mainspring, one portion of a lock plate, one trigger guard fragment, a section of broken gun barrel (32 cm long), and a section of gun barrel (7 cm long) that had been reworked into a chisel or wedge. The cock screw and larger mainspring fragment were found at Tohopeka, whereas the gun barrel sections, lock plate, smaller mainspring fragment, and trigger guard were recovered at Nuyaka. No gun parts were found in the barricade area.

The cock screw, lock plate, and mainsprings were identified as belonging to flintlock muskets, but a lack of distinctive markings on any of the pieces precluded assigning them to definite model or manufacturer. The two most popular longarms among the Southeastern Indians in the late eighteenth century were the British "Brown Bess" and the 1777 Model French musket (Peterson 1956:171). The large mainspring fragment could be from the 1763 Charleville musket of French manufacture. The cock screw and lock plate resemble those illustrated by Hamilton (1960:6) for the 1775 Model French musket.

Ammunition found in the Horseshoe Bend excavations consisted of seven lead musket balls, one lead canister shot (faceted ball), one lead sprue (molding remnant), and three iron grapeshot (Figure 104). Two of the lead balls and the sprue were found at Tohopeka; five of the lead balls, the canister shot, and the three grapeshot were found at the barricade site. In two cases the lead balls had been partially flattened from impact, while the other five examples were "spent" or dropped balls. The provenience, dimensions in millimeters, and approximate caliber of each piece of ammunition are given in Table 18.

Both grapeshot and canister were in use in the early nineteenth century, but these "scatter projectiles" generally were fired at exposed

	Arms and Ammunition						Ornaments				Ceramics and Glass				Miscellaneous Metal			
	Gun part	Lead ball	Grapeshot	Sprue	Gunflint	Metal Projectile point	Glass bead	Chatelaine	Buckle	Copper bead	European Pearlware	Stoneware (post-1830)	Bottle glass sherd	Bottle glass scraper	Cut Nail	Wire Nail	Brass scrap	Iron and tin scrap
Tohopeka																		
Area A		1											1					
Area B	1			1		2			1		2		11		2		5	18
Area C																		
Area D	1	1			1	1			1				50	1			1	7
Test Squares													1		1			
Surface												1						
Barricade		5	3								8		11		6	11		9
Nuyaka																		
Area A	3				1		23	1	1		2		76	1	1		3	9
Area B	1				1		2		1	6			85	1		1	6	12
Test Squares	1												15		1			
Harrow Trenches													18			2	2	10
Surface							1						1					
TOTALS	7	7	3	1	3	3	26	1	4	6	12	1	269	3	11	14	17	65

Distribution of Trade Artifacts by Site and Area

Table 16

	Arms and Ammunition						Ornaments				Ceramics and Glass				Miscellaneous Metal			
	Gun part	Lead ball	Grapeshot	Sprue	Gunflint	Metal projectile point	Glass bead	Chatelaine	Buckle	Copper bead	European Pearlware	Stoneware (post-1830)	Bottle glass sherd	Bottle glass scraper	Cut Nail	Wire Nail	Brass scrap	Iron and tin scrap
Tohopeka																		
Fea. 10 (Area D)																	1	
Fea. 11 (Area D)													45					
Barricade																		
Ditch			1								1							
Fea. 1											1		1		2	2		
Fea. 2															2			
Nuyaka																		
Fea. 1 (Area A)							12						19					1
Fea. 4 (Area B)					1		9		1	6			69	1			3	
Fea. 6 (Area A)	1																	
Fea. 7 (Area A)													1					
Fea. 9 (Area A)							4	1					12					
Fea. 11 (Area A)													1					
TOTALS	1				1		25	1	1	6	2		148	1	4	2	4	1

Distribution of Trade Artifacts by Features
Table 17

Figure 102. Gun parts. a and d, Mainspring fragments. b, Cock screw. c, Lock plate fragment. e, Trigger guard fragment. f, Chisel or wedge made from a portion of musket barrel.

Figure 103. Metal artifacts. a, Section of musket barrel. b-e, Iron straps.

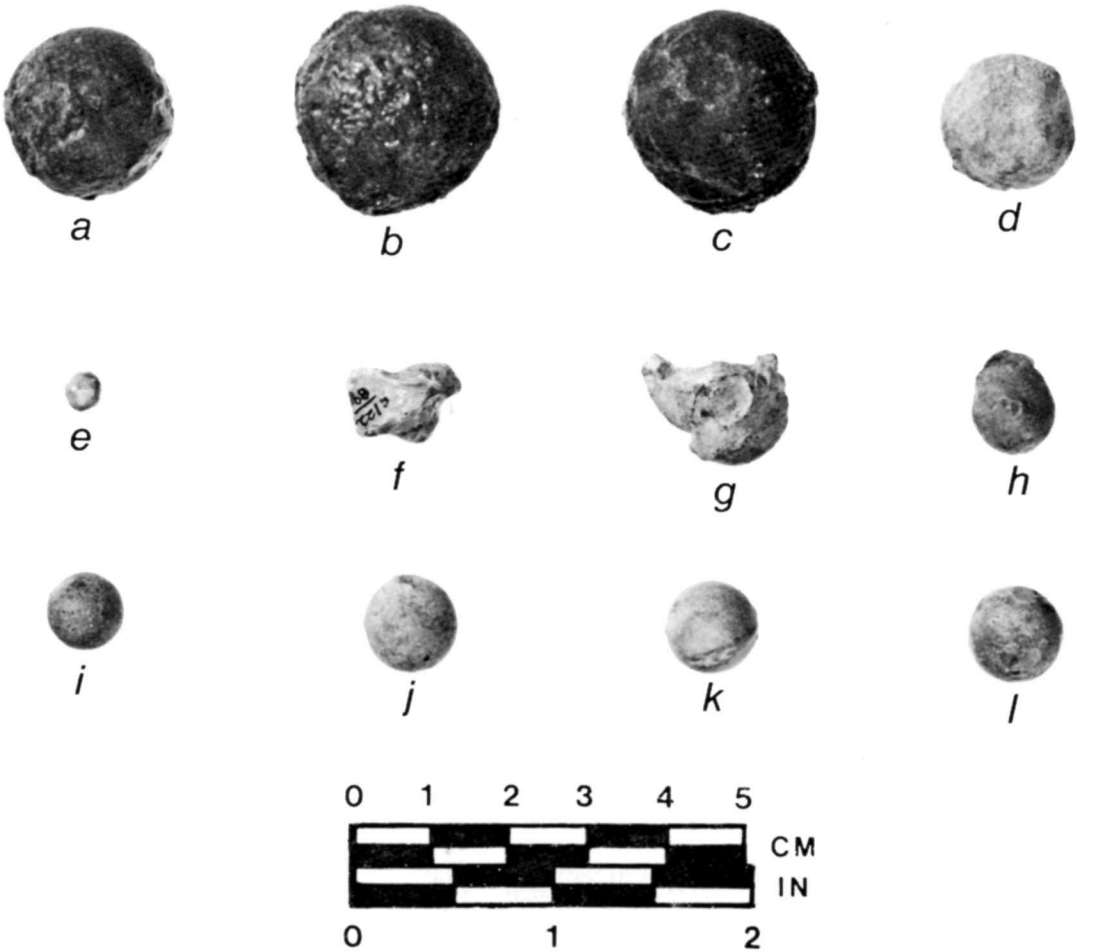

Figure 104. Ammunition. a-c, Grape shot. d, Canister shot. e, Pistol ball or buck shot. f, Sprue. g-l, Musket balls.

	Type	Diameter (mm)	Caliber (approx.)
Tohopeka			
Area A	lead ball	12	48
Area B	sprue	-	-
Area D	small lead ball (buckshot)	4	16
Barricade			
Find 1	iron canister shot	17	68
Find 3	iron grapeshot	25	-
Find 6	iron grapeshot	25	-
Find 7	iron grapeshot	21	-
Find 8	lead ball	10	40
Find 14	piece of lead ball	-	-
Find 15	lead ball	12	48
Find 18	lead ball	10	40
Find 20	lead ball	12	48

Ammunition from Tohopeka and the Barricade

Table 18

troops rather than fortifications (Manucy 1949:68-69). If Jackson used this type of projectile, it is not surprising that his artillery was ineffectual against the barricade. All of the ammunition from the barricade site was found with the metal detectors, and the collection is small when one considers that this was the site of a major battle. However, it must be remembered that the barricade area had undergone considerable farming and erosion, which would have removed or redistributed these artifacts. Also much of the material may have been picked up by collectors in past years (the author saw a private collection of several hundred lead balls that had been surface collected at the battle site in the 1940's).

Only three gunlints were recovered in the excavations (Figure 105, k-m). One gunflint from Tohopeka had a mottled gray-and-brown color, waxy luster, and convex back, traits which sometimes are indicative of French manufacture (Hume 1974:220-221). The other two gunflints were from Nuyaka. One of these, small in size, of black chert, and prismatically shaped with relatively straight edges, may be of British origin. The third gunflint, roughly rectangular in shape, with a waxy luster, and a mottled gray-brown-honey color, is probably of French origin. All three of these flints showed extensive use and edge retouching. The single gunflint recovered at Horseshoe Bend by Fairbanks (1962b:48) was of the French honey-colored variety and also showed heavy use and reworking.

Three metal arrow points were found at Tohopeka (Figures 106, a-c). These were fashioned from thin scrap iron, were triangular in shape, and measured approximately 1.7 cm wide and 2.6 cm long. One specimen had a slight stem. Similar metal points have been found at other late historic Southeastern sites (Gleeson 1973:73). Several other small flattened pieces of iron (or tin) and brass from Tohopeka and Nuyaka (Figure 106, d-f), also may have been unfinished or fragmentary points. One such piece with a rivet (Figure 106, d) probably was cut from a brass kettle.

Ornamentation

Six rolled brass (or cooper) beads were found in Feature 4 at Nuyaka (Figure 107). These measured from 9 to 14 mm long and had outer diameters of from 4 to 5 mm. The Indians probably made these from small sheets of brass that were cut from worn-out kettles or gun escutcheons, and then hammered and rolled into shape.

A unique ornamental artifact was found in Feature 9 at Nuyaka (Figure 108). This elaborate piece is made of brass and has a gold wash (which can be detected in the recesses of the filigree). A central frame containing an urn motif, said to be typically French by an expert on metal jewelry (Richard MaFong, personal communication), is suspended from two chains, which are joined at the top by a single spring clasp.

Four single chains, each having its own clasp at the bottom, are suspended from the frame. A small grommet is present on one of the terminal clasps, which suggests that the piece had something else suspended below the metal portion.

From library sources on the history of jewelry, this artifact was found to closely resemble a piece of French "day jewelry" known as a chatelaine (which literally means "Lady of the Castle"). This style of jewelry dates to the late eighteenth century, when it was used by the housekeeper to organize her keys and other small items.

> This was an ornamental chain which was fastened to the belt or pocket sometimes, composed of elaborate linked and moulded gold elements in various shapes and sizes, with repousse scenes depicting biblical or allegorical subjects or themes from classical history in elaborate Rococo frames. Chains of various lengths hung from projection points, terminating in spring hooks, which were used by men to hang their watches, keys and other accessories on, while ladies would hang such objects as keys, little prayer books, sewing cases, scissors, or little jewels. Already in use by the end of the preceding century, they became in this period, together with the watch case, the only thing in which gems were rarely used, and the most refined expression of the goldsmith's art. (Gregorietti 1969:241-243)

Four iron buckles were found at Nuyaka and Tohopeka, two from each site. Two larger buckles (Figure 109, a and b), approximately 3 cm square probably were shoe buckles, the most common buckle found on American sites of the period 1700-1815 (Hume 1974:84,87). One of these was complete with tang. A small iron buckle with tang, 1.5 by 2.2 cm in size, probably was a strap buckle, possibly for a powder pouch (Figure 109, c). A fourth buckle, with a center section, appears to have been brass plated, a common feature on harness buckles of this period (Hume 1974:88).

Ceramics and Glass

A small number of sherds of European ceramics were found at the Horseshoe Bend sites. All of these were identified as Pearlware, which was in use between 1790 and 1890 (South 1972:71-106). All but two of these sherds were found in the plow zone, and they may have resulted from activities later than the Indian occupations. One sherd each was found in the ditch and Feature 1 at the Barricade site. The plow zone at the Barricade site produced 8 sherds--one direct-painted floral design platter fragment, the basal ring of a teacup, and six associated undecorated sherds of the same vessel. Two sherds of Pearlware from Tohopeka consisted of one blue-banded plate fragment and one undecorated sherd. Only two small undecorated pearlware sherds were found at Nuyaka.

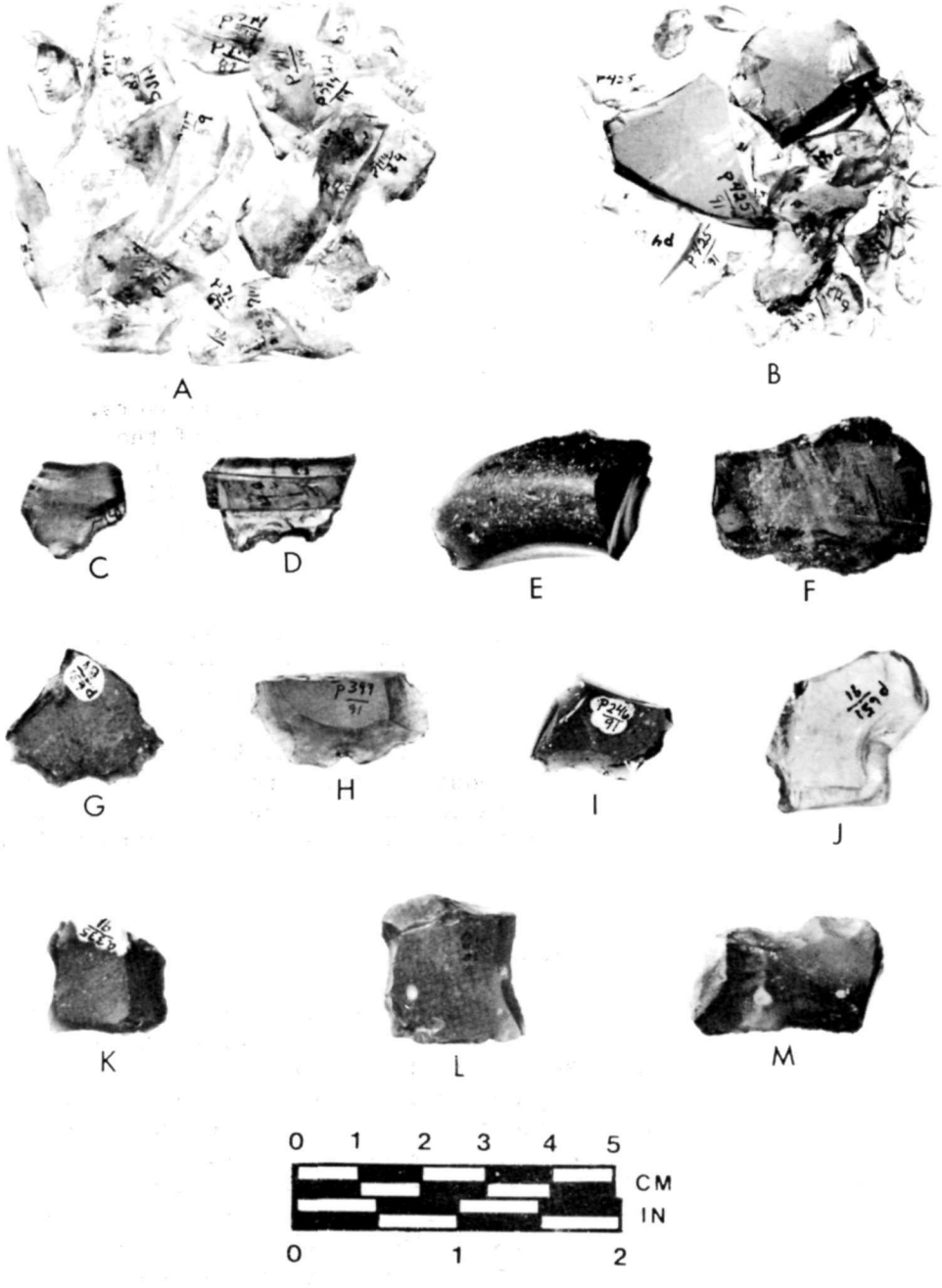

Figure 105. Glass and flint artifacts. a and b, Caches of glass flakes. c-f and j, Bottle sherds. g-i, Glass scrapers. k-m, gunflints.

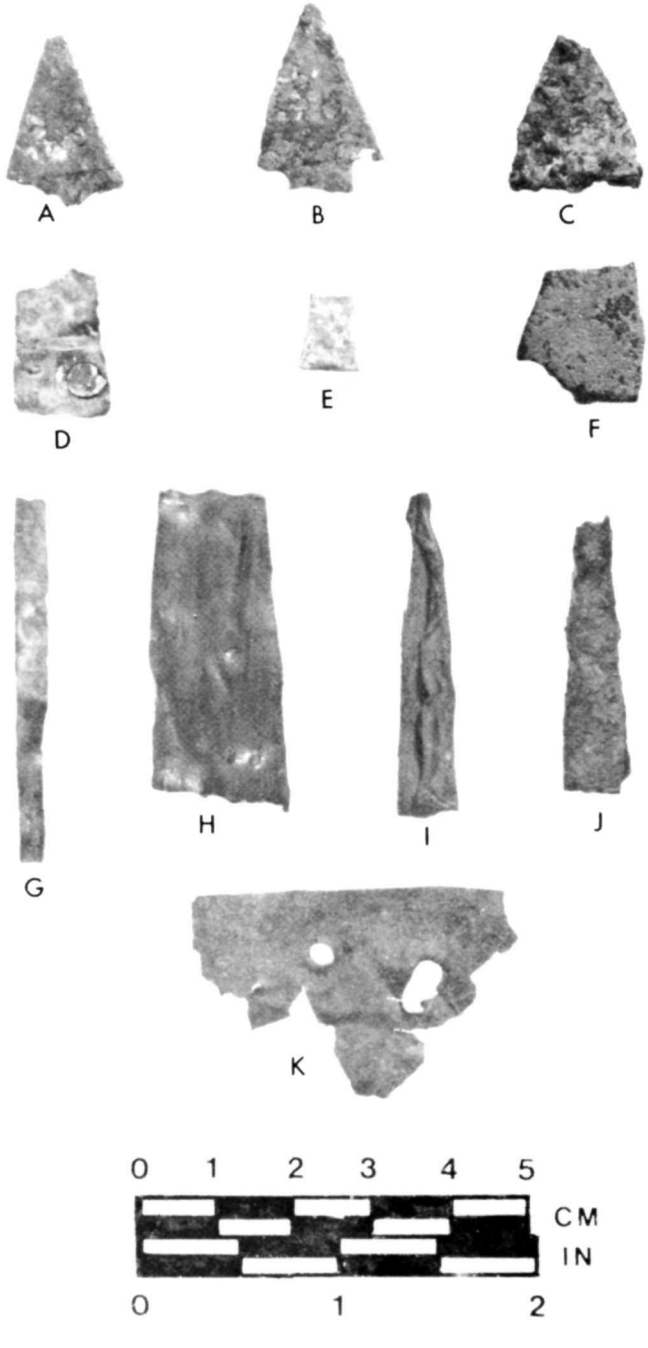

Figure 106. Metal artifacts. a-c, Iron arrow points. d-h Scrap brass and tin. i and j, Possible dangles of tin. k, Scrap brass.

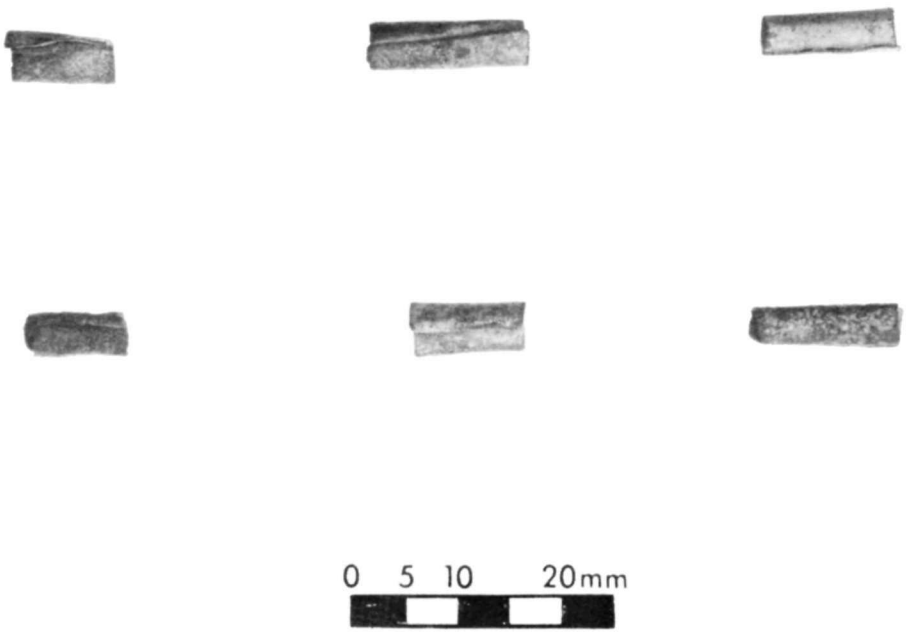

Figure 107. Rolled copper beads.

Figure 108. Brass Chatelaine.

One sherd of alkaline-glazed stoneware, a type of American folk pottery, was found in the plow zone at Nuyaka. This specimen is unglazed on the interior side and probably was part of a churn or jug. Alkaline-glazed stoneware could date no earlier than 1830 in this area (John Burrison, personal communication).

Bottle glass fragments were the most common European trade artifact at the three sites (Figure 105, a-j). Sixty-three fragments were found at Tohopeka, 11 at the barricade area, and 197 at Nuyaka. The largest of these fragments measured less than 5 cm square. It appears that all available bottle glass was worked into tools, as with the glass scrapers described below. A cache of 45 tiny glass flakes (Figure 105, a), from Feature 11 at Tohopeka , had been burned. A second cache of 44 unburned flakes (Figure 105, b) was found in Feature 4 at Nuyaka.

The majority of the glass sherds were of the "black" (dark green) wine bottle type. Several were from the "kick-up" portion of pontile bottles, common in the period 1650-1800 (Switzer 1972:5). Only two neck pieces and two lip pieces were found, none of which was large enough to provide identification of specific bottle type.

An interesting piece of clear glass (English "flint glass") was found in Harrow Trench 3 at Nuyaka (Figure 105,j). This was the basal corner of a bottle with the raised lettering "INV," followed by "BAL," and then by "of" and below that the letters "LIF." A similar bottle, illustrated by Hume (1974:74), was a pharmaceutical vial with "INVENTED BALSAM OF LIFE" molded on the front. This medicine was invented in 1744 by R. Turlington; Americans adopted Turlington's bottle form and produced replicas during the late 1700's (Hume 1974:72).

Six sherds of glass were found in the plow zone at the barricade. These consisted of five bottle fragments and one window pane fragment, all of which seemed to be modern. One fragment of dark green glass found in Feature 1 closely resembled the bottle glass from the village sites.

During an examination of the glass fragments from the two village sites, three worked pieces of bottle glass (one from Tohopeka and two from Nuyaka) were noted to have a similar shape to the gunflints (Figure 105, g-i). The use of bottle glass for gun strikes seems possible when one considers that the Upper Creeks at this time may not have been well stocked with true gunflints and would have been compelled to find a substitute. Stanley South (personal communication) suggested that these artifacts were scrapers, but he did not rule out the possibility of their use as gun strikes.

Using a modern replica flintlock musket and several pieces of bottle glass (dating ca. 1800) as strikes, a series of experiments were conducted. It was determined that the glass would spark if certain variables were controlled, i.e., use of a soft frizzen, use of FFFFG powder,

and maintenance of a dry atmosphere and clean frizzen. However, the spark from the glass usually was not reliable enough to ignite the powder. From these experiments, therefore, it was concluded the glass artifacts were scrapers and not gun strikes.

Miscellaneous Metal Artifacts

A major group of metal artifacts was nails. The cut nails--three from Tohopeka, four from barricade area, and two from Nuyaka--probably can be attributed to the historic Indian occupation (Figure 109, e-j). Hume (1974:253) states that between 1790 and 1820 a nail was cut so that the middle portion of the shaft was widened and the end flattened to form a blunt point. He further states that prior to 1830 the fibers in the shaft were at right angles to the length of the nail, and that after 1830 the fibers ran length-wise. The cut nails from Horseshoe Bend were in such an advanced state of corrosion that it was difficult to determine the arrangement of fibers, but the general shape of the nails resembled those dating to the pre-1830 period. Eleven wire nails, considered to be modern, also were recovered from the barricade area.

Two small strips of folded tin or iron, measuring 3.5 and 4 cm in length, were found at Tohopeka (Figure 106, i and j). These items may have been made by the Indians to function as ornamental "dangles."

A 5.2 cm-long iron hook was found in Area B at Tohopeka (Figure 109, k). The lower end of the hook is pointed and the upper end is cut at a slant. It is possible that this hook was originally part of a larger apparatus, such as a fireplace assemblage; the Indians may have used it as a fish hook.

Another metal artifact recovered at Tohopeka was a cylindrical piece of iron, 2.5 cm long, with a small knob on the side. This item resembles the sliding bolt portion of a "dead bolt" lock.

Four pieces of an iron strap (possibly a barrel strap) were found in Feature 1 at Nuyaka (Figure 103, b-e). The pieces measured 30 cm, 13 cm, 12 cm, and 10 cm, respectively. Such items probably were cut into sections and further worked into a variety of tools, weapons, or ornaments. Why these pieces were abandoned is inexplicable.

Several modern (probably early twentieth-century) metal artifacts were found in the barricade area during the metal detector surveys. These included bolts, screws, bottle caps, tin cans, plow blades, tractor parts, tools, horse and mule shoes, and various other items (Figure 110).

Figure 109. Metal artifacts. a-d, Iron buckles. e-j, Nails. k, Hook.

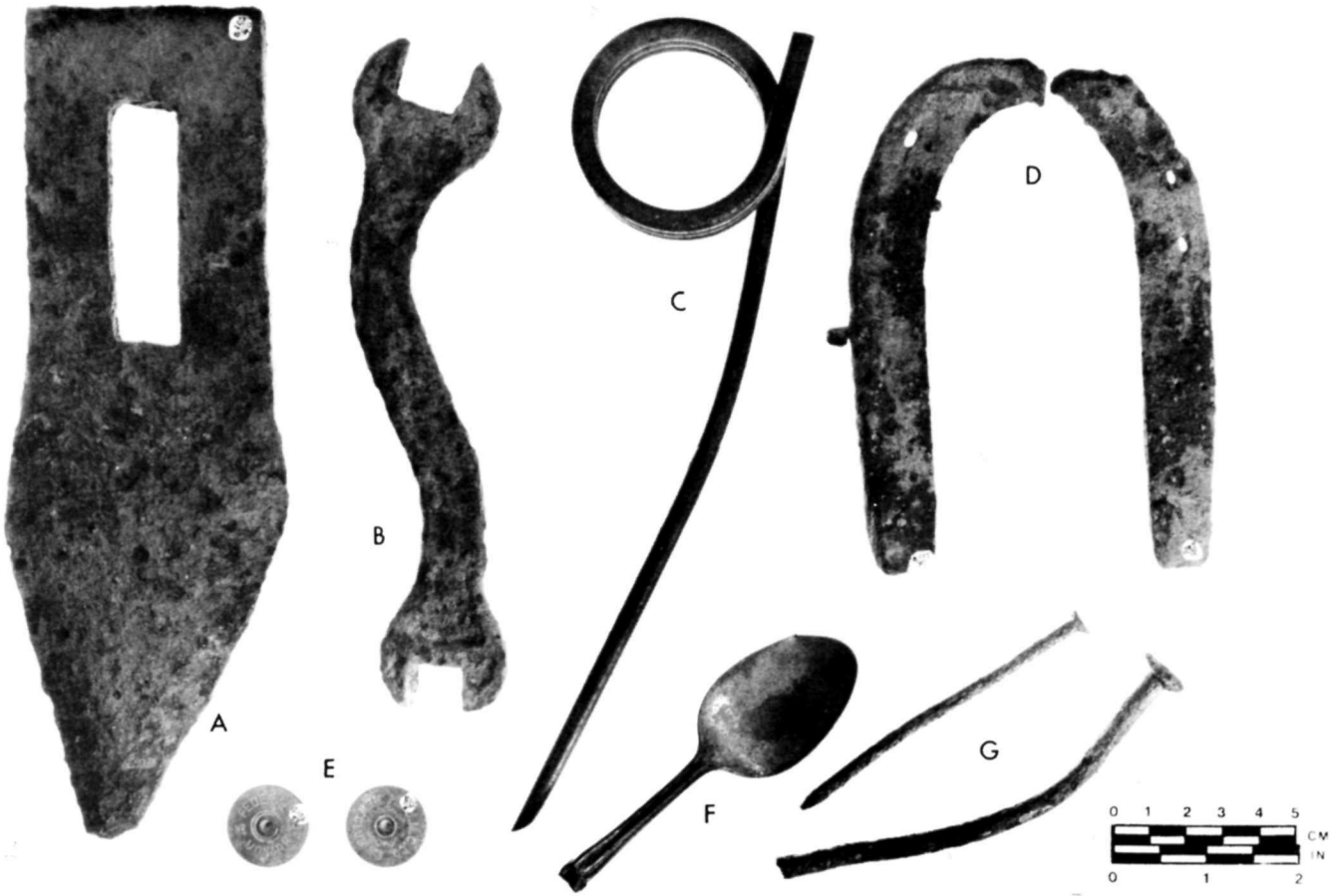

Figure 110. Modern metal artifacts. a, Plow blade. b, Wrench, c, Harrow tooth. d, Mule or horse shoe. e, Shotgun shell casings. f, Spoon. g, Nails.

Glass Trade Beads from Nuyaka

by

Marvin T. Smith

This is an analysis of 24 glass trade beads from the Nuyaka Village site. No glass trade beads were found at the Tohopeka or Barricade sites. The beads are described using standard type descriptions. Sizes given are diameters perpendicular to the perforation, unless otherwise stated (it should be noted that due to the handmade nature of the beads, sizes will vary). The provenience of all beads is given in Table 19.

The beads were also compared to collections from other sites in the Eastern United States: the Guebert Site, a Kaskaskia Indian town in Illinois occupied 1719-1833 (Good 1972); Fort Michilimackinac, a French and later British fort in Michigan occupied 1715-1781 (Stone 1974); Chota, an Overhill Cherokee town circa 1745-1799 (Gleeson 1970); Coosawattee Old Town, beads from one Cherokee structure dated ca. 1780 Smith 1973); the Creek town of Atasi (personal information), and the Creek site of Childersburg (DeJarnette and Hansen 1960). The Nuyaka beads were also compared to beads in a Wichita Indian glass bead sequence, developed from several sites in Texas (Harris and Harris 1967).

All beads in the collection were made by the hollow cane method. In this manufacturing technique, a large bubble of molten glass was pulled out to form a long hollow tube. This tube was broken into sections the length of the beads, which were either left rough, or were tumbled. Tumbling is a process for smoothing the fractured ends of the broken tube (called a cane). Ash was placed in the perforations of the beads, and the beads were then heated and tumbled in a drum to obtain smooth, rounded ends. The ash functioned to keep the perforation from melting closed. For a further description of bead making, see van der Sleen (1973) or Kidd (1970).

Following Harris and Harris (1967:138), beads are further described as simple, compound, or complex. Simple beads are made of one structurally undifferentiated mass of glass. Compound beads consist of two or more concentric layers of glass. Complex beads have decoration, such as stripes, made from glass rods impressed into the surface. Only one complex bead was found at Nuyaka.

Type Descriptions (Figure 111):

(1) Opaque white untumbled tubular bead of compound construction. Three specimens: 2.9-3.5 mm. in diameter. A thin transparent clear layer overlies the opaque white.

This bead is probably Childersburg Type 2, Georgia White Cylindrical dated 1750+. It is present at Guebert (Type 119), the Wichita sites

Provenience	Bead Type Number	Number of Specimens
Back dirt 100R850	6	1
Feature 1	1	2
	2	1
	3	1
	4	1
	5	2
	6	3
	7	1
	11	1
Feature 4	1	1
	2	2
	5	2
	6	1
	10	1
	11	1
Feature 9	2	1
	8	1
	9	1
	Total	24

Distribution of Glass Trade Beads at Nuyaka

Table 19

(Type 65, 1676-1820), Fort Michilimackinac (Type C1, SB, T2, Vb), Atasi, and Chota.

(2) Opaque black untumbled tubular cane bead of simple construction. Four specimens: 2.7-3.2 mm. in diameter. This bead occurs at Childersburg (Type 9, Georgia Black Cylindrical 1750-1825), Wichita sites (Type 66, 1740-1820), Fort Michilimackinac (Type C1, SA, T2, Vb), Chota, and Coosawattee Old Town. This bead is a good marker for the last half of the 18th century.

(3) Translucent burgundy untumbled tubular cane bead of simple construction. One specimen: 2.7 mm. in diameter. This bead was not found in any report consulted, but is a color variety of Type 2 and Type 5.

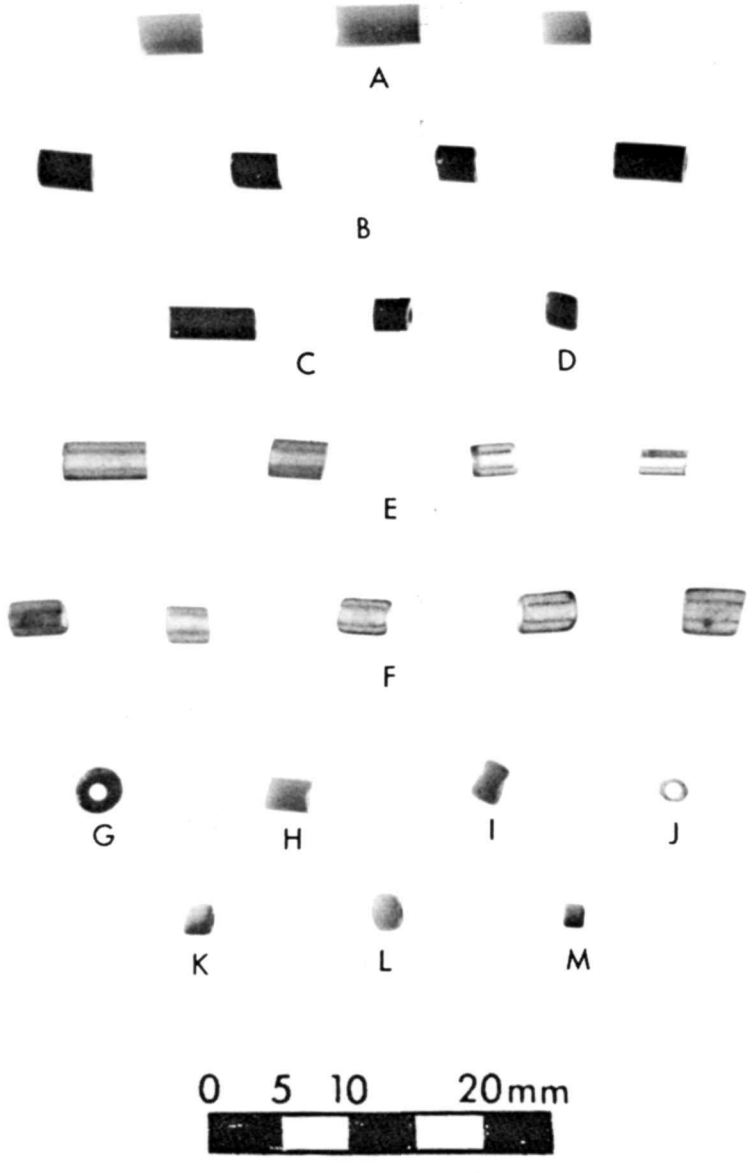

Figure 111. Glass trade beads. a, Type 1. b, Type 2. c, Type 3. d, Type 4. e, Type 5. f, Type 6. g, Type 7. h, Type 8. i, Type 9. j, Type 10. k, Type 11. 1, Type 12.

(4) Short tumbled tubular red bead of compound construction. One specimen: 2.8 mm. in diameter. This bead is an opaque dull red over a transparent light green core. It is called the Cornaline d'Aleppo in the literature. This bead occurs at Childersburg (Type 46, 1685-1825), Coosawattee Old Town, Guebert (Type 127a), Wichita sites (Type 51, 1700-1836), and Chota. This bead is very common and has a wide chronological and geographical range. Generally, this type is replaced circa 1800-1820 by a similar bead having a translucent red outer layer over an opaque white core.

(5) Short untumbled tubular transparent medium blue bead of simple construction. Four specimens: 2.2-3.0 mm. in diameter. This bead occurs at Childersburg (Type 8, "Georgia Transparent Blue Cylindrical" 1775-1825), Coosawattee Old Town, and Chota. This is a good time marker for the late 18th century.

(6) Short tumbled tubular transparent medium blue cane bead of simple construction. Five specimens: 2.9-3.8 mm. in diameter. These beads may simply be well worn specimens of Type 5, instead of being truly tumbled. However, this tumbled type occurs in the Wichita sequence (Type 61, 1740-1820). These are probably grouped with Type 5 in Childersburg Type 8, "Ga. Translucent Blue Cylindrical."

(7) Small tumbled black donut-shaped seed bead of complex construction. Six white stripes are inlaid parallel to the perforation. One specimen: 3.7 mm. in diameter. I was unable to find this bead in the literature, however it is similar to Type 91 in the Wichita sequence which has four white stripes and is dated 1740-1767. This four stripe variety also occurs at Fort Michilimackinac and Chota.

(8) Small tubular untumbled opaque light blue cane bead of simple construction. One specimen: 2.7 mm. in diameter. This bead is similar to Type 5 except for color. This bead is also found at Fort Michilimackinac (Type C1, SA, T2, Vc) and it may be present at Chota (incomplete description).

(9) Small tumbled barrel-shaped opaque light blue seed bead of simple construction. One specimen: 3.0 mm. in diameter. This bead is the same color as Type 8. It occurs at Fort Michilimackinac (Type C1, SA, T1, Va) and may be Type 68 at Guebert.

(10) Opaque white tumbled barrel-shaped seed bead of compound construction. One specimen: .26 mm. in diameter. White core with clear exterior layer. This bead occurs at Guebert (Type 109a), Wichita sites (Type 5, 1700-1836), Coosawattee Old Town, Fort Michilimackinac (Type C1, SB, T1, Va), and Atasi. This is an extremely common bead type of no chronological significance.

(11) Opaque white tumbled barrel-shaped seed bead of simple construction. Two specimens: 2.0 mm.-3.1 mm. in diameter. These beads may be

patinated examples of Type 10, in which the thin clear outer layer has weathered away.

In conclusion, eleven types of beads were described from the Nuyaka site. All types that could be compared with examples in the literature date from the late eighteenth to early nineteenth century, which coincides with the historical evidence for occupation of the site during the period 1777 to 1813. The absence of certain bead types which are common on earlier sites suggests that the site was not occupied earlier than 1777 in the historic period. Similarly, the absence of certain bead types, such as the red over white form of the Cornaline d' Aleppo and the blue faceted "Russian" bead which appeared during the period 1800-1820, indicates that the site was not occupied after 1813-1814.

CHAPTER VII

FOOD REMAINS

Archaeobotanical Remains
by
Claire C. B. Vaught

The following represents an analysis and preliminary interpretation of archaeobotanical specimens recovered in excavations at the Nuyaka Village site. Samples of water-screened pitfilled were selected from Features 1, 4, and 9, all of which were products of the historic Creek occupation (A.D. 1777-1813), and Feature 18, which belonged to the prehistoric Dadeville occupation (ca. A.D. 900-1200).

Recovery and Analysis

Feature 1 was a refuse-filled borrow pit of the historic Creek occupation. It contained Indian pottery and stone tools, European trade artifacts, and food remains. Feature 4, another historic Creek borrow pit, had similar contents to Feature 1, together with a large amount of charred wood. Feature 9, also an historic Creek borrow pit, contained Indian artifacts, European trade artifacts, and food remains. Features 1 and 9 were contemporaneous, as evidenced by their having sherds from the same broken vessel. Feature 18 was a refuse-filled storage pit from the Dadeville occupation of the Early Mississippian period. Pottery sherds, stone tools, and food remains were found in this feature.

Dirt from the features was wheelbarrowed to the river bank, spread over a frame of standard window screen supported at waist height, and hosed with water pumped from the river. The intake hose was covered with screen to prevent waterborne contamination. While awaiting processing, the dirt was covered with sheet plastic to prevent windborne contamination. When dry, the screened material was bagged, labeled, and transported to the laboratory.

In the laboratory, the dry material was sprinkled in a bucket of warm water, and further separated by flotation. The floated material was then poured through a U.S. Standard no. 40 sieve; the remaining material, mostly sand, was washed in a U.S. Standard no. 16 sieve. Finally, both products were spread to dry. Before microscopic examination, separate weights were obtained on the gravel and charcoal from each feature. Both the gravel and the charcoal were then processed through U.S. standard sieves with wire mesh sizes of 4.76 mm, 2.38 mm, 1.70 mm, 1.41 mm, 1.19 mm, and 420 microns, respectively.

The gravel from each feature was given a cursory examination, which did not produce significant results. The material remaining in sieves 4, 8, and 12 was viewed in its entirety, while projections of 50 percent were made for the material from sieves 14 and 16, and 75 percent for material from sieve 40. For all features, sieve no. 70 produced no recognizable seeds or other plant parts. For all features, seeds and nuts were not counted by specimens but were grouped and weighed to the nearest thousandth (.000) gram.

Non-botanical remains, such as flint and quartz flakes, pottery sherds, bone fragments, and the like, were found in the gravel from each feature. In addition, there was a small broken piece of black glass bead in Feature 9, and a piece of translucent green glass bead in Feature 4. In all features, there were fragments of insects, mostly of the order Coleoptera (beetles). Feature 1 contained an especially large number of beetle remains.

From the floated material of the four features, 1500 seeds were recovered. Of this total, 1133 seeds were identified (Tables 20-23). Another 367 seeds remained unidentified but were categorized by their gross morphological differences (Table 24). In addition to the seeds, nut shells, corn fragments, fruit rinds, and root and tuber fragments also were recorded.

Taking all of the features together, the identified seeds belonged to the following plants: bedstraw (Galium sp.), buttonweed (Diodia teres), bean (Phaseolus sp.), canary grass (Phaloris canoriensis), copperleaf (Acalypha sp), grape (Vitis sp.) knotweed (Polygonum sp.), maypo (Passiflora incarnata), morning glory (Ipomoea sp.), panicum (Panicum sp.), partridge pea (Cassia fascicalata), paspalum (Paspalum sp.), peach (Prunus persica), persimmon (Diospyros virginiana), pokeweed (Phytolacca americana), ragweed (Ambrosia sp.), spurge (Euphorbia sp.), and vetch (Vicia sp.). A selection of identified seeds (and insects) is illustrated in Figure 112.

Feature 1

The total sample weight for Feature 1 was 1,202.02 grams. Wood charcoal constituted 223.30 grams, while seeds and other plant parts accounted for 5.89 grams. The remaining 972.82 grams was gravel.

Of the seeds and other plant parts, identified items represented 76.56 percent (Table 20). Hickory nut fragments made up 16.81 percent of the total weight of identified plant remains, unidentified nut shell fragments represented 6.87 percent, maypop constituted 17.11 percent, and corn represented 8.02 percent.

The floated material also contained bark fragments, burned bone, and charred and uncharred insects. The insect remains, mostly of the order Coleoptera (Beetles), were as follows:

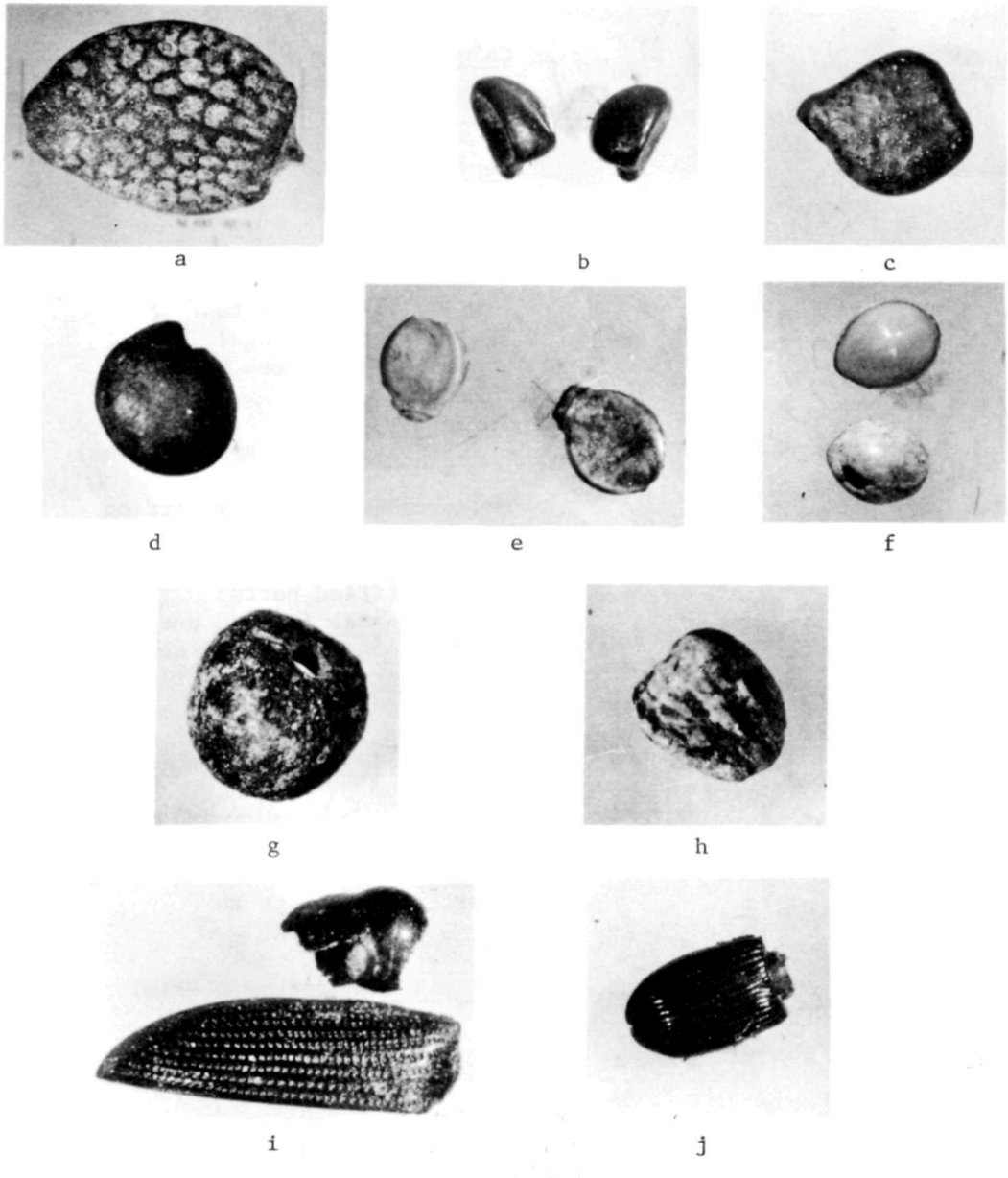

Figure 112. Selected specimens of seeds and insect parts from archaeological features at Nuyaka. a, Maypop (Passiflora incarnata). b, Morning glory (Ipomoea sp.). c, Partridge pea (Cassia fascicalate). d. Pokeweed (Phytolacca americana). e, Paspalum laeve. f, Paspalum ciliatifolium. g, Buttonweed (Diodia teres). h, Bedstraw (Galium sp.). i, Ground beetle (Coleoptera carabidae). j, Scarab bettle (Coleoptera scarabaeidae). Scale: 10 times actual size.

Sieve no. 8	Coleoptera Scarabaeidae (scarab beetles) 1 pronotum and 2 elytra
Sieve no. 12	Lepidoptera (butterflies) 1 larvae Coleoptera Carabidae (ground beetle) Pronotum and elytra Miscellaneous parts Hemiptera (true bugs) Membracidae (tree hooper) Pronotum Coleoptera Scarabaeidae (scarab beetles)
Sieve no. 14	Unidentified anterior portion of pupae exuivia Coleoptera Unidentified parts Scarabeidae (scarab beetles) Curculionidae (snout beetles) Carabidae (ground beetles) 1 elytra Hemiptera (true bugs) Membracidae (tree hopper) Pronotum
Sieve no. 16	Coleoptera Crysomelidae miscellaneous parts
Sieve no. 40	Coleoptera Carabidae (ground beetle)

Feature 4

The total sample from Feature 4 weighed 913.98 grams. Wood charcoal constituted 516.47 grams, while seeds and other plant parts accounted for 17.51 grams. The remaining 380.00 grams was gravel.

Identified items recovered from the Feature 4 sample are presented in Table 21. Unidentified nut fragments made up 29.46 percent of the sample, acorn and hickory constituted 2.84 percent and 8.28 percent, respectively, and corn made up 9.13 percent.

During the excavation of Feature 4, some unidentified seeds were recovered that were perforated. Four of these seeds were spherical in shape with clearly defined holes. There was also a piece of wood char-

coal with a clearly defined hole. These five charred items may have been beads that had accidentally fallen into the fire.

Feature 9

The total sample weight of Feature 9 was 477.35 grams. Wood charcoal constituted 175 grams, while seeds and other plant parts represented 2.35 grams. The remaining 300.00 grams was gravel.

Identified items from the floated material are presented in Table 22. Acorn, hickory, and unidentified nut fragments made up .01, 1.01, and 27.45 percent, respectively, of the total weight of identified items. Fruit rinds were relatively abundant (56.72 percent), while corn was poorly represented (.82 percent).

Unidentified seeds made up 13.99 percent by weight of the total seeds and other plant parts. The sample also included bark fragments, charred and uncharred bone, and a few insect fragments which belonged to the order Coleoptera (bettles).

Feature 18

The total sample weight for Feature 18 was 789.67 grams. Wood charcoal constituted 192.29 grams, seeds and other plant parts 6.51 grams, and gravel the remaining 590.87 grams.

Identified items recovered from the floated material are presented in Table 23. Unidentified nut fragments made up 47.04 percent by weight of the identified items. Corn and maypop constituted 21.95 percent and 20.08 percent, respectively.

Unidentified seeds made up 39.30 percent by weight of the total seeds and other plant parts recovered from Feature 18. The floated material also contained bark, some burned bone and resin, and charred and uncharred insects. Included in the gravel of Feature 18 were potsherds, small rocks, flint chips, burned bone, burned pine resin and bark, fired clay bits, sand, and silt. A few Ipomoea and Passiflora seeds and hickory nut shells were also found in the gravel.

Historically Documented Uses of the Identified Plants

Nuts were a very important staple for the Creeks. Certain preparations made the nuts palatable while other preparations provided cosmetics. Medsger (1972) notes that "Hickory is an Indian word said to be derived from the name of a liquor made by pounding the kernels and shells of these nuts for a long time in a mortar. After they were finely powdered, water was added and the process continued, until a milky

Table 20
Identified Plant Remains From Feature 1

Plant Type	Sieve Number 4	8	12	14	16	40	Total Grams	Percent
Acorn	-	-	-	-	-	-	0.0000	0.00
Hickory	.6214	.1296	.0083				.7593	16.81
Unidentified nut shells		.2074	.0361	.0669			.3104	6.87
Corn		.2107	.1422	.0092			.3621	8.02
Fruit rinds	1.6550	.2360	.0001	.0001	.0001		1.8913	41.87
Wild bean	.0046						.0046	0.10
Bedstraw	.0429					.0002	.0431	0.95
Buttonweed	.0021	.0149	.0083	.0444	.0001		.0698	1.55
Canary grass	-	-	-	-	-	-	0.0000	0.00
Charred vegetable	-	-	-	-	-	-	0.0000	0.00
Copperleaf		.0041		.0051			.0092	0.20
Fungal remains				.0046	.0002		.0048	0.11
Grape			.0071	.0001			.0072	0.16

Table 20 (Continued)

Plant Type	Sieve Number 4	8	12	14	16	40	Total Grams	Percent
Grass seeds	-	-	-	-	-	-	0.0000	0.00
Knotweed					.0006	.0004	.0010	0.02
Maypop	.1846	.1666	.1418	.2366	.0353	.0077	.7726	17.11
Morning glory	.0276	.0247	.0213	.0088	.1279		.2103	4.66
Panicum					.0013		.0013	0.03
Partridge pea				.0156			.0156	0.35
Paspalum						.0001	.0001	< .01
Peach pits	-	-	-	-	-	-	0.0000	0.00
Persimmon	-	-	-	-	-	-	0.0000	0.00
Pokeweed				.0029			.0029	0.06
Ragweed			.0001				.0001	< .01
Spurge	.0361		.0149				.0510	1.13
Vetch	-	-	-	-	-	-	0.0000	0.00

Total gravel weight in Feature 1 ---------- 972.82 grams
Total charcoal weight in Feature 1 ---------- 223.30 grams
Total weight of identified seeds in Feature 1 ---------- 4.5167 grams

Table 21
Identified Plant Remains From Feature 4.

Plant type	Sieve Number 4	8	12	14	16	40	Total Grams	Percent
Acorn	.4389					.0001	.4390	2.84
Hickory	.2493	.9158	.1128	.0001	.0001	.0001	1.2781	8.28
Unidentified nut shells	4.500	.0238	.0238	.0001	.0001		4.5478	29.46
Corn	.6447	.7237	.0409				1.4093	9.13
Fruit rinds		.0531	.0001	.0001	.0001		.0534	0.35
Wild bean	-	-	-	-	-	-	0.0000	0.00
Bedstraw	.0040	.0607	.0065				.0712	0.46
Buttonweed	.0018		.0153	.0001			.0172	0.11
Canary grass	-	-	-	-	-	-	0.0000	0.00
Charred vegetable	5.4813						5.4813	35.51
Copperleaf	-	-	-	-	-	-	0.0000	0.00
Fungal remains	-	-	-	-	-	-	0.0000	0.00
Grape	.0308			.0010			.0318	.21
Grass seeds	-	-	-	-	-	-	0.0000	0.00

Table 21 (Continued)

Plant type	Sieve Number 4	8	12	14	16	40	Total Grams	Percent
Knotweed			.0158				.0158	.10
Maypop	.4924	.0866	.0158	.0068			.6016	3.90
Morning glory	.0308		.0020		.0116		.0444	0.29
Panicum	-	-	-	-	-	-	0.0000	0.00
Partridge pea			.0168				.0168	0.11
Paspalum				.0001	.0011		.0012	<.01
Peach pits	.6220	.7690					1.3910	9.01
Persimmon	-	-	-	-	-	-	0.0000	0.00
Pokeweed	.0002						.0002	<.01
Ragweed	-	-	-	-	-	-	0.0000	0.00
Spurge		.0216	.0109	.0047			.0372	0.24
Vetch	-	-	-	-	-	-	0.0000	0.00

Total gravel weight in Feature 4 ---------- 380.00 grams

Total charcoal weight in Feature 4 ---------- 516.47 grams

Total weight of identified seeds in Feature 4 ---------- 15.4373 grams

Table 22
Identified Plant Remains From Feature 9

Plant type	Sieve Number 4	8	12	14	16	40	Total Grams	Percent
Acorn		.0001					.0001	<.01
Hickory		.0202	.0001				.0203	1.01
Unidentified nut shells		.5315	.0224			.0001	.5540	27.45
Corn		.0165	.0001				.0166	0.82
Fruit rinds	1.1125	.0274	.0001	.0047		.0001	1.1448	56.72
Wild bean	-	-	-	-	-	-	0.0000	0.00
Bedstraw		.0156					.0156	0.77
Buttonweed		.0020	.0705	.0026	.0016		.0767	3.79
Canary grass	-	-	-	-	-	-	0.0000	0.00
Charred vegetable	-	-	-	-	-	-	0.0000	0.00
Copperleaf	-	-	-	-	-	-	0.0000	0.00
Fungal remains	-	-	-	-	-	-	0.0000	0.00
Grape	-	-	-	-	-	-	0.0000	0.00
Grass seeds	-	-	-	-	-	-	0.0000	0.00

Table 22 (Continued)

Plant type	Sieve Number 4	8	12	14	16	40	Total Grams	Percent
Knotweed	-	-	-	-	-	-	0.0000	0.00
Maypop		.0586	.0076	.0067			.0729	3.61
Morning glory		.0195	.0192	.0138	.0379		.0904	4.48
Panicum				.0016	.0024		.0040	0.20
Partridge pea			.0056	.0081			.0137	0.68
Paspalum			.0016	.0021	.0150		.0187	0.93
Peach pits	-	-	-	-	-	-	0.0000	0.00
Persimmon	-	-	-	-	-	-	0.0000	0.00
Pokeweed			.0396	.0051			.0447	2.21
Ragweed	-	-	-	-	-	-	0.0000	0.00
Spurge	.0090						.0090	.45
Vetch	-	-	-	-	-	-	0.0000	0.00

Total gravel weight in Feature 9 ---------- 300.00 grams

Total charcoal weight in Feature 9 ---------- 175.00 grams

Total weight of identified seeds in Feature 9 ---------- 2.0185 grams

Table 23
Identified Plant Remains From Feature 18

Plant type	Sieve Number 4	8	12	14	16	40	Total Grams	Percent
Acorn	-	-	-	-	-	-	0.0000	0.00
Hickory	-	-	-	-	-	-	0.0000	0.00
Unidentified nut shells	1.0286	.8098	.0196				1.8580	47.04
Corn	.0467	.7227	.0792	.0117	.0068		.8671	21.95
Rootlets	-	-	-	-	-	-	0.0000	0.00
Wild bean			.0045				.0045	0.11
Bedstraw			.0030				.0030	0.08
Buttonweed		.0027	.0365	.0040			.0432	1.09
Canary grass						.0047	.0047	0.12
Charred vegetable	-	-	-	-	-	-	0.0000	0.00
Copperleaf	-	-	-	-	-	-	0.0000	0.00
Fungal remains						.0037	.0037	0.09
Grape	.0017	.0050	.0106	.0010			.0183	0.46
Grass seeds				.0047			.0047	0.12

Table 23 (Continued)

Plant type	Sieve Number 4	8	12	14	16	40	Total Grams	Percent
Knotweed	-	-	-	-	-	-	0.0000	0.00
Maypop		.5515	.1774	.0336	.0305		.7930	20.08
Morning glory		.0338	.0164	.0076	.0101		.0679	1.72
Panicum	-	-	-	-	-	-	0.0000	0.00
Partridge pea		.0044	.0122				.0166	0.42
Paspalum				.0068	.0037		.0105	0.27
Peach pits	-	-	-	-	-	-	0.0000	0.00
Persimmon	.1312	.0267					.1579	3.99
Pokeweed		.0525	.0047				.0572	1.45
Ragweed	-	-	-	-	-	-	0.0000	0.00
Spurge		.0272					.0272	0.69
Vetch			.0127				.0127	0.32

Total gravel weight in Feature 18 ---------- 590.87 grams

Total charcoal weight in Feature 18 ---------- 192.29 grams

Total weight of identified seeds in Feature 18 ---------- 3.9502 grams

Table 24
Unidentified Seeds From Features 1, 4, 9, and 18

Feature	Sieve No.	Morphological Classification: Spheroid to Ellipsoid	Oblong to Long	Angular	Varied w/ Hooks or Spines	Other, broken, etc.	Total	Percent
1	4	33	3	3	3		12	3.27
	8	1	3	7	4	3	18	4.91
	12	5	1	3	4		13	3.54
	14	6	3		7	3	19	5.18
	16	7		4			11	2.99
	40	3		3		1	7	1.91
4	4	-	-	-	-	-	0	0.00
	8	15	2	5	3	4	29	7.90
	12	36	1	4	4	11	56	15.26
	14	11	5	2	2	11	31	8.45
	16				4		4	1.09
	40	-	-	-	-	-	0	0.00
9	4	-	-	-	-	-	0	0.00
	8	2	1				3	.82
	12		2				2	.54
	14		4				4	1.09
	16	1	3	1	1		6	1.64
	40	1		2	1		4	1.09
18	4	-	-	-	-	-	0	0.00
	8	10	2	1	8		21	5.72
	12	11	13	8	15	3	50	13.62
	14	10	6	2	1	9	28	7.63
	16	11		4	6		21	5.72
	40	20	2		6		28	7.63

Total number of unidentified seeds in all features ---------- 367

Total weight of unidentified seeds in all features ---------- 6.3424 grams

Percent of total seed weight in all features for unidentified seeds ---------- 19.66 percent

or oily liquor was produced which they called pawcohiccora." Hickory nuts are high in food energy, each nut having 13.2 grams of protein, 68.7 grams of fat, and 12.8 grams of carbohydrates. Hickory nuts also contain 2.0 grams ash, 360 milligrams phosphorus, 2.4 milligrams iron, and small amounts of other vitamins (Watt and Merrill 1963).

As for the preparation of acorns: "The Indians usually ground the acorns of the various species until the mass was in the form of flour or meal. This was placed in water for a day to soak out the tannin and other bitter substances. The water was then drained off and the material was molded in the form of cakes or loaves or mixed with other foods. Sometimes the acorns were roasted before they were ground into meal" (Medsger 1972).

The extensive utilization of corn as a food by Southeastern Indians has been abundantly documented. The Creeks used corn in a variety of dishes including hominy, succotash, samp, sagamite, pone, and pemmican. They also had medicinal uses for corn. In one preparation, it was used as a bladder and kidney treatment. When mashed, pounded, and mixed with water, corn was thought to have healing powers for persons with a fever; fermented corn was used as an intoxicant and a remedy for nervous conditions (Weslanger 1973).

Many of the seeds recovered from the Nuyaka features were used by the Creeks as foods, medicines, poisons, dyes, and cosmetics. Examples of possible uses of seeds encountered in Feature 1, 4, 9 and 18 are as follows (Medsger 1972; Vogel 1970; Weslanger 1973; et al.):

Foods

Plant	Use
Grape (muscadine)	Fruit eaten fresh or fermented as a drink.
Morning glory	Fleshy roots roasted (similar to sweet potato).
Partridge pea	Beans roasted for coffee.
Persimmon	Fruit, when ripe, eaten or used in bread.
Pokeweed	Young leaves cooked like spinach (red parts believed to be poisonous).
Maypop	Fruit eaten fresh.
Peach	Fruit eaten fresh or fermented as a drink.

Medicines

Acorn (White oak)	Bark used as a remedy for dysentery. Steeped bark used for bleeding piles. Nuts eaten to induce thirst. Crushed roots mixed with whiskey as a liminent for rheumatism.
Buttonweed	Leaves and stalks used as an emetic.
Ragweed	Root made into a laxative.
Maypop	Crushed plant used as poultice for swellings. Used in remedy for ringworm. Juice applied to sore eyes. And used as an antispasmodic and a sedative.
Peach	Leaves pounded and used as a remedy for boils
Persimmon	When green, used as an astringent.
Pokeweed	Powdered root used as a poultice for swellings, pain, fever and cancer. Powdered root thought to have emetic and cathartic properties. Ointment made from root used externally as a remedy for the "itch;" and berries boiled and used as a remedy for rheumatism.

Dyes, Cosmetics, and Poisons

Acorn (White oak)	Nut boiled in lye of maple ashes until oil floated. Used to anoint their bodies.
Bedstraw	Used for pinkish dye.
Buttonweed	Red root mixed with bear grease and used as cosmetic.
Pokeweed	Berries used as dyes and as fish poison.

Summary and Conclusions

In all features, the genera of plants identified recurred with some frequency. The single prehistoric feature, Feature 18, was only distinctive in its larger percentage of corn (22 percent, as opposed to 9, 8, and 0.8 percent for the historic features), in the presence of persimmon, and in the absence of peach. It is surprising that other cultigens, such as squash, beans, and pumpkins, were not found, especially in the historic features.

Most of the identified seeds are indicative of open fields and disturbed soils. Very few of the weeds were wet area types. Without exception, all of the identified seeds and nuts were available from spring to early autumn.

Nut remains were not especially plentiful in the historic features (40 percent was the largest and 23 percent the smallest), and this is a possible indicator that these features were filled in the spring to early summer. If they were filled prior to the harvest season, that might also explain the absence of cultigens other than corn. Peach was the sole European-introduced plant in the samples, and it was found only in Feature 4.

Zooarchaeological Remains
by
Paula F. Edmiston

This study represents an analysis and preliminary interpretation of faunal remains recovered from two historic Creek features at the Nuyaka Village site.

Features 1 and 4 were chosen for this study because of the substantial amounts of bone they contained. Both features also contained European-manufactured items such as glass trade beads and metal straps, as well as aboriginal tools and utensils. The latter group of artifacts, however, contained no worked bone. This may be due to differential preservation or to European trade goods having replaced native manufactured goods.

Identification of species present was made by use of reference collections at the laboratories of archaeology at Georgia State University and the University of Georgia, and with the use of several osteological manuals (I would like to thank Barbara Ruff of the Faunal Laboratory at the University of Georgia for allowing me access to the collections there, and for her kind assistance in making identifications)

It is common in faunal analyses to calculate the minimum number of individual animals present at a site. This is accomplished by adding up the total number of bones representing a specific element and side for the total animal. For example, if deer is represented by one left humerus, two right femurs, and one right tibia, one would suppose that two deer were present. This has not been possible with the Nuyaka meterial, as preservation was so poor that in many instances determination of side could not be made.

Hypotheses

Although it has not been possible to establish dietary patterns from such a small sample of faunal remains, other patterns have appeared that suggest specific activities related to subsistence. Deer and cow are the only mammals identified from the two features, and only two genera of turtle have been identified (shell only). No other reptile, bird, or fish remains were identified, even though all of the fill from both features was water-screened. Since it is almost certain that other animals figured into the economic activities of these Indians, the following hypothesis was formulated:

> Hypothesis 1: The faunal remains reflect patterns of differential refuse disposal.

Another pattern is the predominance of foot bones relative to other skeletal parts. Since the missing bones represent the most desirable food parts of the animals, a second hypothesis was developed.

> Hypothesis 2: The faunal remains suggest that butchering occurred in at least two stages.

It is also possible that differential preservation will eventually account for this unusual bone distribution, and indeed bone preservation was very poor. For the present, however, the evidence appears to call for some other explanation.

Data

The bone sample from the combined features totaled 387 fragments. As previously stated, bone preservation was poor, and in a large percentage of the specimens all identifying features were missing. Table 25 is a list of bones identified by class. The following animals were present in both features: Odocoileus virginianus (white-tailed deer), Bos tarus (cow), and Terrapens carolinia (box turtle). Emydidae sp. (river turtle, species undetermined) was present only in Feature 4. Table 26 gives the relative frequencies of species identified by feature. It is apparent that this is not a representative list of species utilized by Upper Creek Indians at the time the Nuyaka Village

was inhabited. For example, Indian Agent Benjamin Hawkins recorded the following animals being used by the Creeks; horses, deer, hogs, cattle, chickens, turkeys, geese, ducks, sturgeon, trout, perch, rockfish, and red horse (Pound 1951:104-109). Fairbanks (1962), in his excavations at Nuyaka in 1961, reported finding bones from the following animals: bird, reptile, cow, pig, deer, terrapine, turkey, chicken (egg shells), and fish.

Both of the features under consideration previously had been subjected to archaeobotanical analysis. In that analysis, the following plant foods were identified: corn, grape, morning glory, partridge pea, poke, maypop, and peach. This analysis revealed that the botanical remains in these two features represented the spring-summer season, prior to the harvest, which would explain the absence of cultigens other than corn, and of various nuts and other fall-winter plants.

	Feature 1	Feature 4	Total
Mammal			
Identified	66	29	95
Unidentified	60	102	162
Bird			
Identified	--	--	--
Unidentified	--	--	--
Fish			
Identified	--	--	--
Unidentified	--	--	--
Reptile			
Identified	50	8	58
Unidentified	1	30+	31
Unidentified bone	11	30	41
Total	188	199	387

Total bone: 387
Identified bone: 153
Percent Identified: 65

Bones Identified by Class
Table 25

	Feature 1	Feature 4	Total
Cow	8 (6%)	5 (13%)	13 (8%)
Deer	58 (50%)	24 (64%)	82 (53%)
Box turtle	50 (43%)	7 (18%)	57 (37%)
River turtle	--	1 (2%)	1 (.06%)
Total	116 (75%)	37 (25%)	153 (100%)

Frequencies of Species

Table 26

Feature 1

Feature 1 was a large basin-shaped pit, measuring 7.1 by 8.4 feet across the top and 1.3 feet deep at the center. The pitfill, containing a large amount of cultural debris, was removed and water-screened at the site. Water-screening resulted in 188 bone fragments, over 900 other artifacts, and 229 grams of botanical material. One hundred sixteen of the bone fragments were identified to species (Table 26). Present were 58 deer bones, eight cow bones, and 50 box turtle carapace fragments. Six of the bone fragments were burned, three of which were charred beyond recognition. Of the three species identified, deer and turtle were indigenous to the area. Cows were introduced to the area by Europeans. Although all were food animals, they had uses other than food. Deer skins were a valuable commodity to both the Indians and Europeans. Bone tools were common to the Indians, and turtle shells were modified for use as vessels and rattles.

Feature 4

Feature 4 was a large basin-shaped pit similar to Feature 1, located 100 feet away. It measured 6.2 by 6.4 feet across the top and 1.9 feet deep at the center; there was a large mass of wood charcoal in the bottom of the pit. Water-screening of the pitfill yielded a total of 199 bone fragments, over 900 other artifacts, and 914 grams of botanical specimens.

A total of 37 bone fragments was identified from Feature 4. Present were 24 deer bones, eight cow bones, seven box turtle carapace

	Deer O. virginianus	Cow B. tarus	Box Turtle T. carolinia
tooth frag.	40	--	--
cervical vert.	1	1	--
L. femur	--	1	--
metatarsal	13	--	--
L. calcaneus	2	--	--
R. australagus	1	1	--
L. australagus	1	--	--
R. naviculocuboid	--	1	--
L. naviculocuboid	--	1	--
L. scaphoid	--	1	--
phalange	--	2	--
shell	--	--	50
Total	58	8	50

Bones Identified by Elements in Feature 1

Table 27

fragments, and one fragment of a river turtle shell (Table 26). Thirty-one bone fragments were burned, all but one charred beyond recognition. As in Feature 1, all species identified are indigenous to the area except the Cow, and all have documented uses for food and/or tools.

Two of the box turtle shell fragments showed scrape marks on the inside surfaces.

	Deer O. virginianus	Cow B. tarus	Box Turtle T. carolina	River Turtle Emididae sp.
R. ear ossicle	1	--	--	--
mandible	1	--	--	--
tooth	--	2	--	--
cervical vert.	1	--	--	--
lumbar vert.	1	--	--	--
R. humerus	1	--	--	--
R. radius	1	--	--	--
sacrum	1	--	--	--
R. pelvis	1	--	--	--
L. pelvis	1	--	--	--
L. femur	--	1	--	--
L. tibia	--	1	--	--
R. metatarsal	6	--	--	--
L. metatarsal	3	--	--	--
R. calcaneus	2	--	--	--
L. calcaneus	2	--	--	--
L. australagus	1	--	--	--
phalanx	1	1	--	--
shell	--	--	7	1
Total	24	5	7	1

Bone Elements in Feature 4

Table 28

Analysis

The animal represented by the highest frequency of bones was deer. It composed 53 percent of the specimens identified in the combined features. Next was turtle, which made up 37 percent of the identified remains from both features. However, it should be pointed out that the turtle shell was so fragmented that reconstruction was not possible, and only one turtle may be represented. Cow bones accounted for eight percent of the remains.

An important aspect of the faunal remains from both features is the relatively high frequency of foot bones to other elements (Figures 27 and 28). Foot bones comprise 68 percent of the combined sample, and other bones 31 percent. It is possible that differential preservation could account for this discrepancy, since foot bones are very hard and dense and thus would resist deterioration longer than other skeletal parts. However, the other bones (humerus, pelvis, and others) were quite well preserved, albeit broken.

It is also possible that the two features reflect disposal of items in several pits, so that in the segregation of material, this bone distribution resulted by chance. If one accepts that the Creeks were utilizing other animals (as has been historically documented by Hawkins and others) then these other remains, for some reason, were being disposed of elsewhere. Possibly hunting was so poor at this time that cow, deer, and turtle were the only available animals. Perhaps the deer and cow as "large" game, were butchered in a separate location from the other, "small" game (the turtle shell could be incidental cultural intrusions; indeed, no turtle bones were identified, only shell).

If one accepts this latter possibility, it is further possible that the predominance of foot bones signifies that butchering took place in at least two stages, which involved at the first stage the removal of the feet to facilitate skinning, and at the second stage preparation of the other parts for cooking. There were a few other skeletal parts present, a fragment of mandible, humerus, pelvis, etc. The presence of these bones might provide contradictory evidence for Hypothesis 2, or it could be accounted for by idiosyncratic behavior.

Interpretations

In conclusion, it should be noted that a bone sample representing only two features is not adequate to provide satisfactory answers to the questions posed at the beginning of this section. Further excavations are needed to provide more information on the total range of species and butchering practices in use by the historic Creeks. However, in both the botanical and faunal analyses conducted thus far, the remains do not reflect historically-documented behavior. It is possible that these two features do not represent the total range of subsistence activities. They could have been filled over a short period of time, possibly

representing special function or specific season.

The hypotheses formulated about patterns of differential refuse disposal and butchering practices are supported somewhat by the present data. Historical documentation suggests a broad range of food animals for the late historic Upper Creeks. Therefore, one must conclude that, unless the historical accounts are incorrect or distorted, the other animal remains will be found elsewhare. And, unless differencial preservation can account for the preponderance of foot bones, butchering in different stages is suggested.

CHAPTER VIII

SUMMARY AND CONCLUSIONS

The research design for the Horseshoe Bend Project, outlined in Chapter I, involved four major areas of exploration: (1) the Indian barricade site, (2) the Tohopeka Village site, (3) the Nuyaka Village site, and (4) the site of the alleged Indian caves. The proposed locations of the caves, upon field inspection, did not appear to warrant archaeological attention, and this phase of the project was abandoned in favor of an underwater exploration of the Tallapoosa River.

Investigations in the barricade area were conducted for the purpose of locating the fortification and determining its structural details. Initially, an examination was made of contemporary maps and documents, and modern aerial photographs. The field search utilized metal detection, soil resistivity surveys, and trenching with a mechanical grader. Subsurface remains of the fortification were discovered and were carefully excavated and recorded. These remains consisted of a footing ditch, borrow pits, burned debris, and a patterned distribution of ammunition from the battle.

The barricade appears to have been constructed of two parallel rows of horizontal logs, with the lower tiers set in a shallow ditch. Clay was packed in the space between the two walls, and vertical posts provided support on either side of the earth-and-log structure. The overall plan of the barricade conforms to the rendition on a period map drawn by John Cheatham, Jackson's topographic engineer. Evidence was found to indicate that at least a portion of the barricade had burned during or following the battle. It was also determined that the distance from the archaeological features to Gun Hill corresponds closely to Jackson's on-the-spot estimates.

Investigations at Tohopeka, the warrior-refugee encampment, were undertaken to provide information on settlement pattern and habitation architecture. Excavations were conducted in areas where preliminary tests revealed nominal flood erosion. Although no house floors were found, one of the areas of the more expansive work produced a concentration of historic Creek pottery and European trade artifacts. These findings suggest that it may be possible to define the pattern of settlement at Tohopeka (and other sites of brief occupation) by defining differential distributions of cultural remains in the plow zone.

The excavations at Tohopeka also provided information on the prehistoric Dadeville component, which was originally defined by Fairbanks in his 1961 excavations. In certain areas of the site there were thin patches of undisturbed Dadeville midden, along with shallow basin-shaped

pits containing small numbers of sherds and stone artifacts. Postmolds, most of which could be attributed to the Dadeville occupation, provided evidence for vertical post construction of houses in that period.

At Nuyaka, excavations again were directed at documenting house architecture and the pattern of settlement. Dense undergrowth on the site necessitated the use of a harrow-trenching technique to obtain a controlled surface collection. An area selected for intensive excavation contained scattered postmolds and several large basin-shaped pits, but again as at Tohopeka there were no floors or other direct remains of houses. The large pits contained abundant aboriginal pottery along with occasional European trade artifacts. The filldirt from these features, when subjected to water-screening, produced large amounts of carbonized plant remains.

Two bell-shaped pits (probably food storage pits) of the Dadeville phase also were found at Nuyaka. In addition to providing a quantity of charred plant remains, one of these pits was radiocarbon dated at A.D. 1045 $\pm$ 140 years, placing the Dadeville phase in the Early Mississippian period.

An Archaic period component was represented at Nuyaka by several large primary flkes of milky quartz found in a sandy-clay layer beneath the plow zone. Stemmed projectile points of this same material also were found in the plow zone.

In the underwater investigations, a scuba diver systematically searched the river bottom, visually and with a metal detector, in several areas of potential significance to the battle and in the possible location of an historic "ford." These investigations were surprisingly unproductive. The diver concluded that modern sediments had substantially covered any artifacts of the eighteenth and early nineteenth centuries.

Material remains from the three sites included aboriginal artifacts of stone and clay, aboriginal pottery, European trade artifacts, and food remains. The stone artifacts consisted of chipped-stone projectile points, scrapers, hoes, blanks, and cores; ground-stone celts, gorgets, pipes, discs, beads, pigment, and one example each of an ear spool and atlatl weight; and rough-stone hammers, pestle, mortar, and anvils. Clay artifacts consisted of pipes, beads, sherd discs, and coil fragments.

The projectile points could be grouped into four categories by shape: ovoid, stemmed, notched, and triangular. Two of the triangular points were found in historic Creek contexts; the aovid, stemmed, and notched points probably were associated with the prehistoric occupations. One ovate quartz point or knife was found embedded in a charred log at the barricade site. The only complete ground-stone celt was found in an historic Creek feature. Most of the clay artifacts appear

to belong to the prehistoric Dadeville component, since the paste and color characteristics match the Dadeville pottery.

Most of the aboriginal pottery sherds could be separated into two major series. The Dadeville Series, represented primarily by a plain ware, but also containing brushed, incised, and punctated types, was the oldest ceramics at Tohopeka and Nuyaka. The Ocmulgee Series, composed of incised, plain, burnished plain, and brushed types, and known from numerous historic Creek sites, represented the latest ceramics at the two villages and the only ceramics at the barricade.

Pottery sherds were the only artifact found in amounts large enough to be analyzed statistically. Differential vertical distributions of the Dadeville and Ocmulgee Fields types at Tohopeka clearly demonstrate an older temporal position for the Dadeville Series. Differential horizontal distributions of the Ocmulgee Fields sherds at Tohopeka seem to be related to the settlement pattern. One area of high sherd density, for example, contained a comparable clustering of historic trade artifacts.

A comparison of the distributions of types and attributes of the Ocmulgee Fields pottery at Tohopeka and Nuyaka, showed a number of significant differences between the two villages. These differences seem mostly to represent a selection for vessels of specialized function at Tohopeka. The Nuyaka ceramic assemblage appears to have contained both "utilitarian" and "fancy" wares in roughly the same proportions found at other permanent and socially-stable Creek villages. The Tohopeka ceramics, however, contained a significantly greater than expected proportion of "utilitarian" wares to "fancy" wares, a possible material reflection of the specialized activities and impermanent nature of a warrior-refugee settlement.

The Early Mississippian Dadeville Series, along with other late prehistoric ceramics of the Coosa-Tallapoosa area, should be recognized as having a possible ancestral relationship to the Ocmulgee Fields Series and other historic Upper Creek ceramics. Many attributes of the Dadeville Series, including vessel forms, brushing, rim notching, and incising, are perpetuated in the historic complexes. Such a prehistoric-historic relationship provides a basis for reevaluating interpretations of connections between Upper Creek ceramics and those of the central Georgia complicated stamped tradition.

A relatively small group of European trade artifacts was recovered at the three sites. This assemblage consisted of gun parts and ammunition, ornaments, ceramics and glass, and miscellaneous metal items. Nuyaka, with a smaller total area of excavation yielded a larger number of trade items than Tohopeka. The scarcity of trade goods at Tohopeka probably reflects the short life of the settlement and the fact that only one sub-plow zone feature of the historic occupation was found.

However, the destitute condition of a people whose homes had been recently burned, and for whom trade relations had become unsatisfactory, may also be reflected in the lack of such items. Even at Nuyaka, where trade artifacts were somewhat more numerous, there was evidence in the small size of discarded metal scraps and glass flakes, and in the much reworked gunflints, of the extensive use made of all trade materials. Not a single glass trade bead was recovered at Tohopeka. The absence of these beads, which are quite common at most historic Creek sites, also may indicate that many of the nativistic Red Sticks had abandoned European ornamentation.

The analysis of plant remains from the four features at Nuyaka yielded important results. It is significant that the samples identified for the Dadeville and the historic Creek occupations, separated by about 700 years, are so similar. The Dadeville feature was distinctive only in its larger amount of corn, presence of persimmon, and absence of peach. Some of the plant remains common to both occupations were acorn, hickory, maypop, unidentified fruit, and a variety of weedy plants. Most of the seeds were from plants that have documented uses by Southeastern Indians as foods, medicines, dyes, and cosmetics. The animal remains indicate uses of native and introduced species. Deer and Cow prenominated.

The small amounts of cultigens and nut shells in the historical features suggest that these pits were dug and backfilled during the summer months, prior to the harvest season. This interpretation is supported by the presence of numerous insect remains. The large amounts of corn and nut shells in the Dadeville feature suggest that the contents of this pit were deposited in the autumn.

In conclusion, the goals of the 1973 fieldwork at Horseshoe Bend were only partly realized. Perhaps the most important accomplishment was the discovery of a portion of the Indian barricade, a goal which was highest in priority but lowest in probability of realization. Work in the village sites was less productive than had been anticipated, in that no complete house floors or overall house arrangements were defined at either village. On the other hand, important information was obtained on historic Upper Creek ceramics, on differential artifact patterning between the two villages, and on historic period subsistence practices. And, unanticipated data was obtained at both sites on the Early Mississippian Dadeville component, including a radiocarbon determination for that component.

The report to the National Park Service included recommendations regarding the interpretive program at Horseshoe Bend. Suggestions were made for reconstructing a portion of the Indian barricade, for enhancing interpretations of the Nuyaka Village site (and thus of pre-war Upper Creek culture), and for adding some exhibits on the prehistoric developments leading to the historically-documented horizon.

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APPENDIX I

A SKETCH OF CREEK HISTORY

by
Joan C. Rupp

In broad perspective, one should expect the archaeological remains from the Horseshoe Bend sites to reflect the social, economic, political, and military aspects of Upper Creek life in the late eighteenth and early nineteenth centuries. The following historical sketch traces the major influences, both internal and external, on Upper Creek culture in the years during the rise of the Okfuskee towns, the development of the Red Stick movement, and the outbreak of the Creek War. Many factors-- including dissention among the Creek people and their leaders, problems of undirected acculturation (trade) and directed acculturation (Hawkins), ultimate economic dependency, and involvements in military and political intrigues of Europe and the United States -- contributed to the cultural environment that survives today as potsherds, glass beads, cow bones, and charred corncobs.

In the seventeenth century, the Creek Indians occupied land from the Alabama River east to the Atlantic Ocean, and from the Coosa and Tallapoosa rivers south into central Florida. Except along the Georgia coast, their lands were above the tidewater (Cotterill 1954:154; Devorsey 1961:15). True Creek Indians, those who spoke a Muskhogean language, are generally divided into Upper and Lower classifications by most authorities (e.g. Swanton 1952). The Upper Creeks lived on the Tallapoosa (called in some accounts the Okfuskee) and Coosa rivers, while the Lower Creeks were located on the Chattahoochee, Ocmulgee, and Flint rivers (Swanton 1952:157). According to a 1738 Spanish census, the male population was 1306 among the Upper Creeks and 757 for the Lower Creeks (Swanton 1922:437), which would make a total population of about 9000 people.

The composition of the Creek group, often labeled a "Confederacy" or "Nation" by Europeans, is generally defined in terms of important towns or groups of towns. Swanton (1922:215) designated twelve divisions of the Creeks, apparently defining them in terms of language and geneaology wherever possible (Table 1, left). In a letter of 1786 (Caughey 1938:108) regarding an important assembly at Tuckabatchey, Alexander McGillivray, the Creek Indian diplomat of the late eighteenth century, listed the Creek towns of political significance (Table 1, right). He stated that these were the towns "that always decide on National affairs of Importance."

McGillivray noted in his letter that many villages would not be attending the meeting because they were controlled by one of the listed towns. Some of McGillivray's towns were wholly or partly composed of tribes other than Creek, such as the Natchez, representatives of which

participated in the deliberations as members of the Creek Confederacy. Most of these latter groups had moved into Creek territory following the encroachment of, or wars with, European settlers; and with the exception of the Yuchi, they all seemed to share Muskhogean linguistic affiliations (Swanton 1922:11).

Swanton's list (1922:215)	McGillivray's list (Caughey 1938:108)
	UPPER CREEKS
Coosa	Coosaws; Okfuskee
Abihka	Abeecootchee
Tukabahchee	Tuckabatchey; Tallasies
Wakokai	Wakocckoy
Eufaula	Upper Eufauly; Great Eufauly
Hilibi	Hillabee
Atasi	Otasie
Pacana	
Okchai	Okchoy; Natchez, Kyalejie; Toushatchee; Cheewally; Coosadas
	LOWER CREEKS
Kasihta	Cussitas
Coweta	Cowetas
Kolomi	
	Thlaycatska; Chiaha; Oussitches; Nitchetas; Chihaws

Swanton's and McGillivray's Lists of Creek Towns

Table 1

On McGillivray's list are three towns that participated in the battle of Horseshoe Bend -- Okfuskee, Hillabee, and Eufauly. According to Swanton (1922:258), the Hillabee towns were in the high country between the Coosa and Tallapoosa Rivers at the junction of Hillabee and Bear Creeks, and possibly were the Ilapi described by a chronicler of the DeSoto expedition. Swanton also mentions Hilibi Creek in northwest Georgia as a possible location for this group before it moved to the

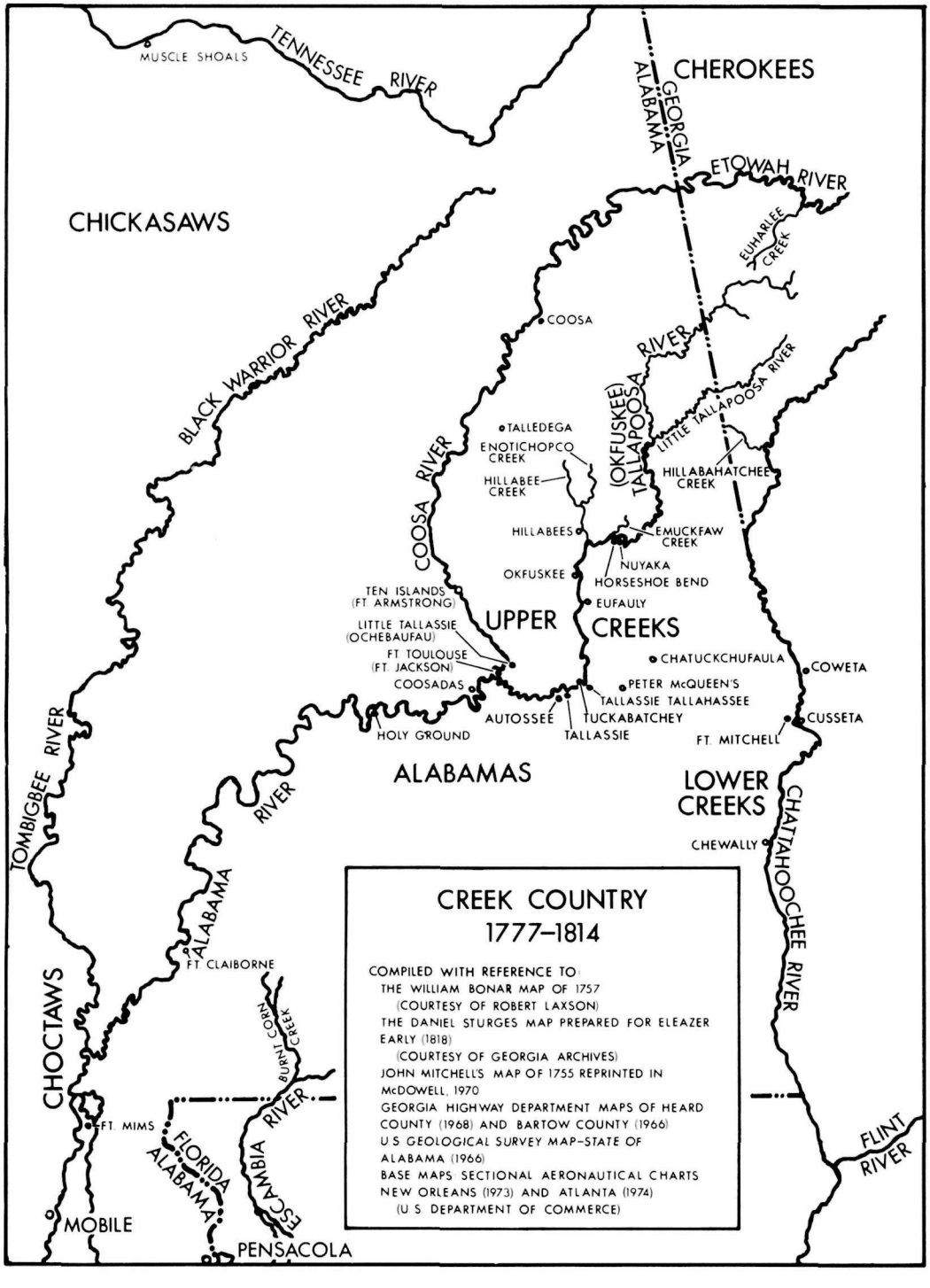

Figure 1. Map of Creek Country, 1777-1814.

Tallapoosa site (Swanton 1922:258). Perhaps this reference is to Hillabahatchee Creek in Heard County, Georgia.

The Eufauly may have had north Georgia origins as well. Euharlee Creek in Bartow County, Georgia, was a name corrupted from the Cherokee Yuhali, which in turn is a corruption of the Creek town name Eufauly (Mooney in Swanton 1922:261). Sometime after 1715, the Eufauly appear to have settled on Talladega Creek, a few miles south of the present site of Talladega, Alabama (Swanton 1922:261). By 1797 they had established a town five miles below Okfuskee on the Tallapoosa River (Swanton 1922:162). The Hillabee and the Eufauly generally agreed on selecting their chiefs from the Aktayatci clan (Swanton 1922:259), and these chiefs would represent one or several towns. There were at least five Hillabee towns and three Eufauly towns.

The Okfuskees comprised seven villages on the Tallapoosa and its tributaries, ranging from 20 miles below Horseshoe Bend to 40 miles above the bend, on or near the Tallapoosa River. One of these villages was Nuyaka. The Okfuskee towns were originally satellite towns of Coosa, which is mentioned in the DeSoto chronicles as being the most powerful Upper Creek town (Swanton 1922:230). Towns labeled Okfuskee are shown on maps dating from the early 1700's. By 1799, Coosa had been abandoned and its satellite towns had moved to other locations (Swanton 1922:241). As Coosa lost its importance as a leading Upper Creek town, the Okfuskee group rose in importance. Population estimates generally show the Okfuskees to be the largest of the Creek towns (Swanton 1922:437), and McGillivray regarded them as "among the largest and most respectable and of great influence among the rest" (Caughey 1938:132). At least from the early eighteenth century, and the time of the Okfuskee chief called Red Coat King, Okfuskee leaders were important in Creek councils (Corkran 1967:160). After 1753, Handsome Fellow (Hobby Thlacco) represented the Okfuskees, until he was succeeded by White Lieutenant in 1777.

Coincident with White Lieutenant's rise in importance was the settlement of the town of Nuyaka. The inhabitants of Nuyaka moved from the Chattahoochee River in Heard County, Georgia, in 1777, from a village called Tukpafka (Swanton 1952:162, 1922:248). Benjamin Hawkins (1848: 46) states that "they [the people of Nuyaka] would not take part in the war between the United States and Great Britain and determined to retire from their settlements, which, through the rage of war, might feel the effects of the resentment of the people of the United States when aroused by the conduct of the red people, as they were placed between the combatants." One of Benjamin Hawkins' letters (Pound 1951:107) reveals that White Lieutenant lived directly across the river from Nuyaka. It seems possible that the rise of White Lieutenant's importance to the Okfuskees also may have contributed to the establishment of the new town.

There are two accounts of how Nuyaka got its name. One holds that Colonel Ray, a British loyalist from New York, named it for his home town; the other says that it was named for the Treaty of New York, an

agreement made between the Creeks and the United States Government on August 7, 1790 (Swanton 1922:248). If the latter is reliable, it seems possible that the village may have been called Tukpafka during the early years. Although there is at present no archaeological evidence that a "square ground" or other ceremonial facilities existed at the Nuyaka site, the people of Nuyaka were the only Okfuskees to maintain a square ground in Oklahoma following Removal (Swanton 1922:248).

Available seventeenth-century records do not show any Indian villages in the vicinity of Horseshoe Bend. However, three villages, Okfuskee, Hillabee, and Eufauly, whose warriors participated in the Battle of Horseshoe Bend, can be located on the Mitchell map of 1755 (Cumming 1962: Pl. 59) and on other subsequent maps. The village of Tohopeka, which apparently was in existence for only a few months before the Battle of Horseshoe Bend, is generally shown only on maps that accompany descriptions of the military activities of 1813-14 (Reid and Eaton 1817:176).

Creek country lay between claims of several European nations, the Spanish to the south in Florida, the French to the west on the Mississippi River and to the south on Mobile Bay, and Great Britain on the Atlantic Coast and later in the Great Lakes area. Early contacts with Europeans on the Atlantic coast do not seem to have affected the Creeks substantially, since their lands lay mostly inland, but coastal Indians quickly became involved in trade and were raided for slaves. By the beginning of the eighteenth century, the European powers moved further inland and used the Indians to help protect their claims and to harass the claims of others.

English settlers on the Atlantic coast periodically launched assaults against the Spanish at St. Augustine (Giraud 1953:199). The English, between 1700 and 1712, set the Alabama Indians against those at Pensacola, the Creeks against the Tohomes and Mobiles, and the Chikasaws and Creeks against the Choctaws (Giraud 1953:204). Some Mobile Indians, enlisted against the Alabama Indians in a 1702 French expedition, appealed to the French commander to allow them to take captive women and children 'because they were their relations' (Swanton 1922: 163), a circumstance that illustrates the confusing complexity of social relationships between Southeastern Indian groups. Such small wars and raids served several purposes: to enlarge a sphere of influence, to obtain slaves for trading, and to limit the participation of a particular European power in the lucrative trade with the Indians. For their part, the Indians received gifts of trade goods, including guns and ammunition for hunting as well as raiding, and political support in controlling traders and land-hungry settlers. Such raids also served to decrease the Indian population, as did the introduction of European diseases (Bossu 1759:133).

There were attempts to control Indians by treaties or other agreements, which resulted in grand affirmations of allegiance such as a council of Creeks in 1705 at the major town of Coweta. This treaty

"affirmed the solidarity of all the Creek tribes with England, their submission to Queen Anne, and their definitive break with the French and Spanish" (Giraud 1953:203).

Agreements like this one did not deter the French, who, from their footholds in New Orleans and Mobile Bay, continued to try to foster trade with Indians. In 1721, the French governor Bienville promoted a general peace among the Indians, in particular the Alabamas and the Creeks. Also in 1712, the British crown commissioners in Charleston, instructed their Indian agent, John Wright, to visit the Indians and to

> settle all Grievances and reconcile them and the traders, giving all the Traders strict Charge in all the Places you come, that they shall on no Pretense whatsoever abuse the Indians, and that you visit all Nations of Indians, to the Westward of Savana Town and settle all differences between the Indians and Traders, and between themselves, and having settled all Affaires among Each, and All the severall Nations of Indians in Amity with this Government, you are then to return to Savana Town... That you alwayes make itt your diligent Care and Study...to enquire into the State of our Enemies, the French and Spaniards, and a true account thereof from Time to Time to advise the Honourable the Gouvernour (McDowell 1955: 32).

In spite of such efforts to promote peace, and contrary to laws forbidding settlement in Indian lands and stipulating rules for trade with the Indians, settlers continued to usurp land and traders frequently cheated the Indians. These activities resulted in a series of Indian uprisings in 1715, which are generally referred to as the Yamassee War. Although the Yamassees attacked and looted Carolina traders and settlers, and were virtually wiped out as a tribe, other Indians were also involved (Mason 1963:17). Traders were attacked by Lower Creeks, and some Choctaws, Catawbas, and Cherokees were involved in skirmishes. Some have suggested that there may have been a loosely organized conspiracy of Indian tribes (Swanton 1922:101).

The Indians hoped that the war would drive the settlers and unfair traders out of Indian lands, but the actual result was that many Indians were killed and remnants of their populations were forced to move further west. The Apalachee, Oconee, Apalachicola, Yuchi and Savannah joined the Yamassee in moving west, some to the Ocmulgee River and others to the Chattahoochee River (Swanton 1922:101). It was also during this period that the Hillabee and Eufauly probably moved from the Chattahoochee to the Tallapoosa area.

During the years following the Yamassee War, the Indians became increasingly dependent upon the availability of trade goods from Europe, markedly influencing their relationships with England, France, and Spain. Between 1715 and the Treaty of Paris in 1764, when French claims were relinquished, the French and British were the principal trading agents among the Creeks (Caughey 1938:20), with the French making serious efforts to gain a greater share. In 1714, the Alabama Indians, who occupied territory adjacent to and just south of the Upper Creeks,

invited the French to establish a trading post in their territory. The site chosen was on the Coosa River at its confluence with the Tallapoosa River, where the two streams form the Alabama (Heldman 1973:251). Here, the Frenchman, la Tour, built Fort Toulouse, with the help of and apparently with expenses shared by the Indians (Bossu 1759:143). The fort was advantageous to the French for several reasons. It would help protect the east boundary of their territorial claims and serve as a base from which they could attempt to drive the English back to the east (Jacobs 1967:5), it could be conveniently supplied with both military needs and with trade goods along the river, and diplomatically it would provide a listening post among the Indians on "the corridor leading to and from Carolina" (Pénicaut 1953:165).

For the Indians, the Creeks as much as the Alabamas, the new trading post provided convenient access to trade goods. Edmund Atkin, British Indian Agent in the South from 1755 to 1761, reported to the Lords of Trade that French influence resulted not so much from their scattered forts as to their willingness to establish friendly relationships with the Indians by keeping them well supplied with guns, ammumition, and "presents." The French also kept skilled craftsmen to repair Indian guns, and French officials enforced a policy of fairness in trade relations with the Indians (Jacobs 1967:xxxi, 5). The Treaty of Paris in 1763 signalled the end of French claims in Creek lands, and although the Indians continued to travel to French ports at Mobile and New Orleans, Fort Toulouse was abandoned and the quantity of French trade goods declined (Gayarré 1885:356).

In 1718, the Hillabee Indians requested that a trading post and factor be established in one of their villages by the Carolina Commissioners of the Indian trade. The Hillabees expressed a willingness to "prepare a trading house for him" (McDowell 1955:282). Apparently it was customary for the Indians to bear some of the expense in bringing trading facilities into their areas, at the least, a building in which trade goods and skins received by the trader in payment could be stored (Mason 1963:50). In spite of efforts on the part of the British to maintain authority in regulating Indian trade, both Georgia and South Carolina, by the 1730's, were licensing traders in Creek country. In 1738, a crown decision officially allowed these two colonies to issue licenses to traders, and the Georgia contingent became dominant in many areas previously controlled by South Carolina traders (McDowell 1955:xiv).

Increasingly larger debts to the traders became a problem for the Creeks in the mid-eighteenth century. The Indians began to pay these debts with land, and a small land cession in 1739 and another in 1763 made them increasingly aware that loss of land limited their resource base. As a Lower Creek headman said, "It is most certain our nation is much in debt. They [the Creeks] intend to discharge their debt in skins and don't mean to give up their lands at all as the skins is the produce of the lands" (Candler 1904:559). Handsome Fellow, an Okfuskee

Creek warrior-chief who frequently represented the Okfuskees in councils, appealed to Governor Lyttelton of South Carolina in 1756 at Coweta:

> We desire that you will stop all out Stores [those between Augusta and the coast], and let none of your People at Augusta or anywhere below trade with our People, for it keeps our young people from coming Home, and they buying goods cheaper below makes them often quarrel with the White People in the Nation, besides they often get drunk below which makes them fight and sometimes kill one another. We desire that you will not let any of your People settle at Ogeechee or incroach any Ways on our Land, for we are resolved not to sell any of our Lands, nor let the White People settle any nigher us, for our Hunting Ground is already too small, which makes the Deer scarce, so that we can't Cloath our Wives and children. We want that you allow our Traders to bring up Rum, for we have always been used with it and Want of it makes our young People go to the French and Spaniards for it (McDowell 1955:239).

Appeals to the colonial governors were received from the traders as well. Most of the hides were traded in the fall of the year, and the common practice was for an Indian to obtain goods on credit with the promise of payment of hides from the next hunting season. If the results of the next hung did not cover the debt, the traders would attempt to negotiate for land, but treaties forbade the Indians to cede land to anyone but the Colonial or European powers. Therefore, the traders, who were licensed and regulated by those powers, took their complaints of debts to the proper government authorities. Following hearings before the governor and his council, and after adjustments for overcharging the Indians, the traders were allowed to claim money from accounts due the Indians in compensation for the ceded lands, or the traders were sometimes given a portion of the ceded lands as compensation (Hawes 1952:17-22).

More and more, occurrences such as these forced the Indians to cede land to cover debts. By 1806, apparently because the Indians continued to be reluctant to cede lands for any reason other than to pay debts, government policies began to reflect these circumstances. Cotterill (1954:139) says:

> It was apparently [Thomas] Jefferson's belief that, although sheer obstinacy might cause the Indians to refuse land cessions to a benevolent government, their primitive honesty would incline them to pay their debts. He would encourage the Indian first to accumulate these useful debts at the government stores and then to liquidate them by land cessions.

Land cessions also caused dissension among the Indians themselves. In 1763, Indian Superintendent John Stuart reported:

> I cannot omit acquainting your Lordship that at the last conference I had with the Creeks, some of the Upper Towns people expressed a dissatisfaction at the cession in favor of Georgia by the Lower Creeks, to which these answered, 'The Lands we have ceded were our own hunting grounds to which you never had any claim nor can the want of them be any inconveniency to you. We hope your future behavior will be such as may not lay us under the necessity of giving away more land to atone for your crimes' (DeVorsey 1961:152).

An episode such as this illustrates that the Creeks could not really be defined as a "Nation." Although they would often select a prominent chief to represent them in negotiations or to be principal speaker in the council meetings, no chief could act unilaterally to make a treaty. The necessity to reach near unanimity of Creek headmen by means of a lengthy process of deliberations appears to have been a source of continuing frustration to the European powers, who preferred to deal with one or a few responsible individuals.

The American Revolution brought an intensification of the already existing problems of maintaining boundaries and fair and reliable trade relations. The British agents Stuart and Taitt exerted every effort to keep the Indians on their side. Traders of long standing, such as George Galphin and Robert Rae of Augusta, who joined the rebels, often took the allegiance of their steady Indian customers along with them in the cause. The Okfuskees, who were among Galphin and Rae's steady customers, were thus among those Indians who supported the Revolution. Handsome Fellow was probably the leader of pro-American, or at least neutralist, sentiment in the Upper Creek Towns in 1775 (Corkran 1967:291).

In 1776, the Cherokees raided White settlements in their lands. Settlers and state militia retaliated in force, killing some Indians and essentially causing the survivors to abandon the disputed land to the Whites (Dickens 1967). This example caused the Creeks to hesitate to become deeply involved in the Revolution. Small groups of Creeks, however, participated in some battles such as the one in East Florida in 1777, when the American's Fort McIntosh on the Saltilla River was captured with the aid of Lower Creeks (Corkran 1967:300). One positive aspect of the war was the success of the British in effecting a peace between the Choctaws and the Creeks, ending many years of hostilities.

During the Revolution, trade became unreliable everywhere. By this time, many of the Indians had lost the necessary skills to manufacture materials and goods for everyday use. They still made their own baskets and pottery, but traders supplied their clothing, metal tools, and guns

and ammunution (Bartram 1792:511). White Lieutenant, who lived on the Tallapoosa River across from Nuyaka and had succeeded Handsome Fellow as principal chief of the Okfuskees in 1777, opposed attacks on South Carolina and Georgia, and attacks on the British in Pensacola, because he believed that "all traders should be protected in their persons and properties" (Corkran 1967:314).

White Lieutenant's point was well taken. He regularly was supplied with goods from the Americans, except at times when this trade was completely cut off because Indians identified as Creeks had attacked an American town or outpost (Corkran 1967:310). Actions by individual towns in support of one or another of the dissident white factions caused severe disagreements among the Creeks, even to discussions of assassinating rival Indian headman. There was the threat of a civil war among the Creeks (Corkran 1967:317). As the fortunes of war began to favor the Americans, trade with the Indians came to a virtual standstill. The Creeks were involved in military efforts to keep the British in Augusta and Savannah in the last years of the war, and in one of these battles, the head Upper Creek chief and leader of the pro-British faction, Emisteseguo, was killed. His successor, a minor chief of the Wind Clan, was Alexander McGillivray.

Following the Revolution, during the decade from 1783 to 1793, the Creeks sought and maintained regular contacts with the Spanish. This was largely due to the influence of Alexander McGillivray. McGillivray's mother, Sehoy, and his maternal grandmother were Creek women of the Wind Clan, from which leaders of the Upper Creeks were generally chosen (Caughey 1938:16). Sehoy's father was Captain Marchand, a French soldier assigned to Fort Toulouse. Lachlan McGillivray, Alexander's father, was a native of Scotland and an ardent British loyalist. Until the age of thirteen, Alexander was brought up at Little Tallassie, not far from old Fort Toulouse. He was then sent to Charleston for a formal education. Studies in Greek, Latin, English history and literature, the influence of his canny Scottish father, and participation in the surrounding Creek culture led to the Development of an astute and literate diplomat. Though it has been suggested (Milfort 1802:86) that he did not measure up to the physical prowess expected of an Indian brave, McGillivray came closer to wielding unilateral power among the Creeks than any other single leader (Caughey 1938:34).

McGillivray was of the opinion that the fledgling United States would not survive, saying in a 1784 letter that, "The whole continent is in Confusion. Before long I expect to hear that the three kings must Settle the matter by dividing America between them" (Caughey 1938:70). The Creeks bitterly resented attempts by the Europeans and Americans to assume sovereignty and carve up Indian territories for themselves. When McGillivray received information that the British and Spanish were negotiating with the Americans to set boundaries, he protested on behalf of the Creeks, Chickasaws, and Cherokees to the king of Spain that the British had no right to cede Indian territory to anyone (Caughey 1938: 91). McGillivray labored unceasingly through diplomatic channels to

preserve the integrity of the Creek Confederacy and the territorial sovereignty of Creek lands.

Following the Revolution, the Creeks, under McGillivray's leadership, generally adhered to the British cause. However, when a British treaty ceded Creek lands to the Americans, McGillivray turned to the Spanish. Trade, during the years after the war, was sporadic and often unreliable. The British firm of Panton, Forbes and Company remained in the good graces of the Creeks throughout, but with the withdrawal of the British, Panton had no authorized base from which to trade. McGillivray, who had a personal financial interest in the company, together with a long-standing friendship with William Panton, wrote copiously to the Spanish, requesting that they allow Panton to become an authorized trader in Pensacola. However, the Spanish Governor Estevan Miro had his own financial interests in the British firm of Mather and Strother, based in New Orleans. Over a period of years, McGillivray supported Panton's case, but, heeding the Indians' needs for supplies, he would often accept them from whatever quarter they were offered.

The paucity, as well as the poor quality, of goods from Spanish sources was a constant problem. The Indians preferred British goods and complained loudly when offered items of inferior quality (Caughey 1938:84). American goods, on the other hand, were the most expensive because they were mostly obtained from foreign sources and had to be carried overland to the Creeks rather than being delivered by water from the Gulf. Also, American manufacturers were not yet producing either the kinds or quality of goods that the Creeks required (Caughey 1938: 24).

The State of Georgia proposed to solve the Indian trade problems by appointing Daniel McMurphy as "their agent to reside in the Creek nation to preserve the peace with their friends the Creek Indians." McMurphy came with the announced intention of licensing all traders then dealing with the Creeks, the licenses to be issued in behalf of the Georgia government. Tame King, chief of Tallassie, and Fat King (Neah Mico) chief of Cusseta, agreed to discuss the situation with McMurphy, but no other chief would deal with him without consulting McGillivray. McGillivray, himself, had been licensing the traders in Creek country following the withdrawal of the British, and he suceeded in convincing the chiefs, except Tame King, that McMurphy was violating the integrity of the Creeks. As a result, McMurphy was literally run out of Creek lands in fear for his life (Cotterill 1954:71).

By such means McGillivray sought to keep the Creeks allied to the Spanish, but the Spanish could not supply all the goods needed. Aware of this problem, individual chiefs, especially Tame King, maintained their ties to American trade sources in spite of McGillivray. McGillivray was more successful in keeping White Lieutenant favorable to his aims. He wrote to the Spanish Governor that "Okfuskee town is among the largest and most respectable and of great influence among the rest [of the towns]," and suggested that the governor send ammunition along

with "four kegs of Taffia [rum] for the White Lieutenant," adding that it had taken him a long time to win White Lieutenant to exclusive trade with the Spanish (Caughey 1938:132).

Posts manned by the French were an additional source of trade goods throughout this period. These goods came from Detroit over the ancient Wabash-Tennessee River route to a settlement at Muscle Shoals, and were primarily to supply the Chicamaugas north of the Creeks. Although not involving large quantities of goods, this trade was important enough to excite a protest from William Panton to McGillivray in 1786 (Cotterill 1954:70).

The problem of illegal white settlement continued to plague the Creeks. McGillivray wrote of former Revolutionary War soldiers settling in Creek country to escape tax collectors in the new states. As a result of taxes levied to pay the American government's war debts, Georgia's burgeoning population spread farther into Creek country. When the settlers usurped Creek land, the State of Georgia would appoint commissioners to negotiate with the Creeks, hoping to keep the peace and gain legal title to the land. McGillivray,and thus the majority of the Creek chiefs, refused to treat with these commissioners for several reasons. The Indians felt that negotiations were unjustifiable until the settlers were removed from the disputed areas, they did not want to cede land because it eroded their resource base, and they held that lands should be ceded only if the entire Creek Confederacy favored the cession. McGillivray was aware of the disagreement between the State of Georgia and the United States Federal Government concerning the validity of treaties negotiated by a single state and not by the Federal Government and thus not constitutionally legal. In addition, his allegiance to the Spanish made him reluctant to agree to treaties which the Spanish did not approve (Caughey 1938:129).

Tame King, cognizant of the gifts accompanying treaty negotiation, was not so reluctant to sign his name. In fact, with one or a few other dissident chiefs, Tame King was involved in three treaties, one with the State of Georgia at Augusta in 1783, another at Galphinton in 1785, and a third at Shoulderbone Creek in 1786. All of these treaties were repudiated again and again by the councils of the Creek Confederacy. Final resolution of the problem came when McGillivray and a majority of Creek chiefs made a treaty in 1790 with the United States Government. At this time the Creeks did cede a small portion of the lands desired by Georgia, but they did not give up all of the territory claimed in the repudiated treaties. Supported by the federal government, the Indians actually regained some of the land that had been taken.

Unfortunately, Alexander McGillivray died in 1793, leaving the Creeks without a leader capable of maintaining a close alliance between the majority of Creek towns. An American Indian agent wrote that "the White Lieutenant was reckoned a man of ability; it was said that McGillivray's control of the Upper Creeks was largely through him" (Caughey

1938:360), but the Upper Creeks chose the Mad Dog of Tuckabatchey as their new head chief. Panton would have preferred to have had Louis Milfort, McGillivray's French brother-in-law, serve as a sort of regent until McGillivray's son came of age, but the Creeks would have none of that (Cotterill 1954:106).

In 1793, some Shawnees came among the Creeks. They claimed to represent thirty-three northern tribes, indicated that they had British support, and asked the Creeks to come north and aid them in pushing back the settlers and in supporting other British aims (Cotterill 1954:102). The Creeks gave little support at this time to such a confederation, although suggestions for a similar alliance can be traced back at least to the Yamassee War in 1715. An Indian confederation was actually encouraged by the British policy of appointing agents to "deal with the Northern Indians" and the "Southern Indians" as if they were allied. In 1785, McGillivray wrote of "keeping up the formidable Indian Confederacy of the late War against the Americans" (Caughey 1938: 99), but such a confederacy was dependent upon the Indians' finding someone to provide them with a reliable supply of military hardward and other essential trade goods. The United States government, recognizing the problems between its citizens and the Indians, sent Benjamin Hawkins into Creek country in 1796 with a plan to "civilize" the Southern Indians. Since the livelihood of the Indians was largely dependent upon hunting, which required large amounts of land, the solution seemed to lie in persuading the Indians to support themselves on less terrain. Hawkins came with ideas of not only making the Indians into farmers, but of increasing their skills in animal husbandry, teaching them new skills in metalwork (such as blacksmithing), encouraging the redevelopment of native craft skills (such as weaving), and the improvement of native agriculture through the introduction of European plants and cultivation techniques.

Hawkins made a tour of Creek country in order to acquaint himself with the Indians and their economic condition, and to promote his civilization plan. Conditions among the Creeks during Hawkins' 1798 tour of Creek country seem bleak: "Throughout the whole of this country, there is but little fruit of any kind...and it is difficult for a good hunter, in passing through it in any direction, to obtain enough for his support" (Hawkins 1848:24). Though Hawkins reports varying conditions from one village to another, he generally noted that the Creeks were poorly supplied with food in comparison to the Cherokees (Pound 1951:107).

The Indians were willing to try some elements of Hawkin's program. For example, raising cattle, goats and sheep had elements of compatibility with their hunting and care for horses. But Hawkins relates that "They all heard me with attentive silence, until I mentioned the raising and spinning of cotton. One of them laughed at the idea...The objection made to it by the men, is, that if the women can cloathe themselves, they will be proud and not obedient to their husbands" (Pound 1951:114).

Here was a suggestion of the thinking that would divide the Creeks into opposing camps in subsequent years. Implementation of Hawkins' plan would require the Creeks to make major changes in their traditional pattern of behavior. Agriculture, for example, was considered mostly to be women's work, and a man doing women's work would be laughed at (Pound 1951:115).

By 1801, as President Jefferson related in a message to Congress, Hawkins had convinced some of the Indians to raise sheep, in addition to horses, cattle, and goats. Fifty plows were in use; a nursery at Hawkins' agency had produced 5000 peach trees that were transplanted to Indian orchards; and sea island cotton, flax, rice, wheat, barley, rye, and oats were being grown in an experimental fashion (Pound 1951:143). Among the Indians who consistently resisted most of Hawkins' plan were Tame King of Tallassie and Fat King of Cusseta (Cotterill 1954:124,150).

As representative of the United States government among the Creeks, Hawkins was charged with the responsibility of keeping order among the Indians, settling disputes between Indians and Whites, licensing traders, officiating at conferences, directing military or other official government expeditions, and establishing boundaries. He soon became aware of the numerous conflicts among the Indians and between the Indians and the State of Georgia, and he suggested a plan to remedy the situation. Essentially, he urged the Creeks to define and codify their laws, to assist him in enforcing those laws, and to let him take a position of advisor to the Creek Council similar to the position held by McGillivray some years before. The plan was supported and put into effect by a majority of the chiefs, but some Indian leaders resisted the authority wielded by Hawkins. Among those disagreeing was the Tame King (Pound 1951:161-164).

During the period 1795-1811, the United States made other efforts to reorganize trade with the Indians by introducing the factory system. The stated objective was to license traders and to establish government-operated posts, with a factor (agent) to regulate "fair dealing" with the Indians and thereby to gain their "loyalty and affection." Goods were to be exchanged, on a non-profit basis, for money or peltry. Factors were to confine their business solely to the Indians, eliminate buying on credit, and properly distribute the annuities provided for the Indians in treaties (Mattison 1946:169).

The factory system of trade was not very successful. Wars in Europe cut off the supply of factory goods as well as peltry exportation, and there was no market for skins in the United States. The Indians preferred to deal with traders in their own towns rather than travelling to a government factory, and often the Indians could acquire goods locally at lower prices. The last factory in Creek country was located at Fort Mitchell on the Chattahoochee River (Pound 1951:199).

During the years 1805 through 1811, several issues divided the Creeks. Hawkins' program of civilization was accepted by many Lower

Creeks, who invested their annuities from treaties in the purchase of tools and seed rather than guns and ammunition. In contrast, the Upper Creeks were much slower in adopting the new ways. Until 1802, they had been under the leadership of Mad Dog who was vehemently opposed to the program. Removed from his post in 1802, Mad Dog continued to oppose Hawkins, but his successor, Big Warrior (Tustennugee Thlucco) of Okfuskee, apparently was neutral to the program (Cotterill 1954:160; Doster 1974:5).

In 1805, another controversial issue arose. A treaty and land cession was made that year, one provision of which was that a federal road should be built through Creek country from Ocmulgee to Fort Stoddert, near Mobile, enlarging the horse path for the route of the United States Mail and allowing for wagons and military supplies. Most of the Creeks were against the road, fearing that it would lead to hostilities and to additional land seizures (Doster 1974:10). But in 1811, the government instructed Hawkins to inform the Indians that the road must be constructed, and to advise them to "give their consent rather than compel the government to use means which it is desirous to avoid" (Doster 1974:32). Hawkins reported in 1811 that the road had been built in spite of strong protests from the Creeks (Cotterill 1954:162). Two other treaties, in 1802 and 1805, involved cessions of land east of the Ocmulgee River. These cessions briefly mitigated the Georgians' insatiable desire for land, and provided the Creeks with money to pay off their debts and indemnities for hostilities (Pound 1951:177, 187).

The trade within Creek lands above the thirty-first parallel was rather well regulated by the United States, but this did not preclude the Indians travelling to the Spanish Florida, below the thirty-first parallel, to trade. Forbes, of Panton, Forbes and Company, continued to be active in the trade, operating out of Pensacola, to which the Indians frequently travelled (Pound 1951:205).

The Creek Confederacy annually met in the spring at Tuckabatchey, with headmen from the leading towns invited to participate. McGillivray had made some efforts to include neighboring tribes and had hoped to effect a confederacy with the Choctaws, Chickasaws, and Cherokees. By 1807, Okfuskee Chief Big Warrior made an effort to establish a working governing body to include all of the above groups with himself as head chief. He was unsuccessful in mustering the necessary support (Doster 1974:7, 31).

In the spring of 1810, at the annual meeting of the confederacy, the Upper Creeks, led by Big Warrior, continued their efforts to unite "the four Nations". This time, noting the persistent opposition of Hawkins to unification, Big Warrior suggested that they get the Cherokees to aid them in having Hawkins removed as Indian Agent, so that an agent more agreeable to their aims could be appointed (Doster 1974:20). The Lower Creeks, now including the Seminoles, supported Hawkins and threatened to leave the confederacy and hold their meetings at Chatuckchufaula, the town of Tame King, if the Upper Creeks continued to try

to remove Hawkins (Doster 1974:24). All of the chiefs met later that year at Chatuckchufaula, and Hawkins wrote that the chiefs were again united, and that Big Warrior "under the support of the governor of Pensacola is disappointed by the union...the Chiefs...declared that in future he is to be regarded as a Chief only and equal only with other Chiefs" (Doster 1974:25).

In February, 1811, Hawkins received complaints of another dispute among the Indians. Representatives from several towns in remote Upper Creek territory claimed that they had received no share of the stipends from the treaties made with the United States, and thus had no money to spend for spinning wheels and looms to make their cotton into cloth so that they could clothe themselves. They claimed the stipend was going to "certain great Chiefs to share and grow ritch out of it" (Doster 1974:25). The chiefs who had signed treaties were supposed to receive annual annuties under secret provisions of the treaties, and, along with other controlling chiefs, were distributors of the annual stipend publicly received according to treaty terms. Hawkins gave the complaining group some spinning wheels, which he undoubtedly charged against their stipend, and he advised that they take their complaint to the next general meeting of the chiefs (Doster 1974:3).

At the meeting in May, 1811, at Chatuckchufaula, Hawkins requested that the chiefs agree to allow Whites to travel on the Coosa River and to build a road from the Tombigbee River in Alabama to the Hiwassee River in Tennessee. Tame King, as Speaker for the council, flatly refused. In addition, the chiefs agreed to hold future meetings at Tuckabatchey or Coweta, instead of Chatuckchufaula. At Hawkins' suggestion, they appointed as a sort of executive council nine Upper Creek chiefs and four Lower Creek chiefs. Big Warrior was made speaker and head of the council, thus ousting Tame King (Doster 1974:28).

In September of 1811, in the midst of the dissension among the Creeks, came the Shawnee Indian Tecumseh accompanied by a delegation of northern Indians. They attended a September 21st meeting of the Creeks at Tuckabatchey, and according to Pound (1951:211), an unusually large group of 5000 Indians was present. Doster (1974:36) lists deputations of 19 Choctaws and 46 Cherokees attending. At the meeting, Hawkins insisted that "the white people must have roads to market and for travelling wherever they choose to go through the United States." He added that a general had been appointed to build the road with troops (Doster 1974:36), and that they expected to use the rivers for travel as well. Bowing to the inevitable, the chiefs negotiated details with Hawkins. After Hawkins left the meeting, Tecumseh presented his talk, for which there apparently is no verbatim report, but Reid and Eaton, in their 1817 (26-27) biography of Andrew Jackson, claim that he admonished the Indians to stop all contact with the whites, to stop using the implements and clothing the white trade provided and "to return again to their savage state." Tecumseh's connections with the British were well known, and it is said that he asked support from the Southern Indians in helping the British to regain territory in the United States. Halbert

and Ball (1895:58-84) present a possibly fictional story that Tecumseh presented bundles of sticks to Big Warrior, these sticks to represent the days until the Indians would all rise up and rid themselves of the Whites. One stick was to be broken each day, and the last stick would represent the day appointed for the overthrow to occur. This method of keeping track of time and meeting dates was traditional among the Creeks (Caughey 1938:105).

Tecumseh was accompanied to Creek country by Seekaboo, a kinsman and follower of Tecumseh's brother, Tenskwautawaw, the Prophet. Tenskwautawaw claimed supernatural powers, and appears to have been a very charismatic leader. He convinced many Indians to return to traditional ways and to participate in the "Dance of the Lakes," which augmented his oratory. Tenskwautawaw apparently did not accompany Tecumseh and Seekaboo into Creek country, but there is evidence that Seekaboo was active in promoting the prophetic movement (Halbert and Ball:48-50).

The influence of Tecumseh's visit continues to be debated by scholars. Cotterill (1954:175) claims that the episode has been inflated in importance, and that it really had little influence on the events to follow. However, letters and other descriptive material of the period suggest that Tecumseh arrived at a time when the Creeks were most unhappy with pressures from the Americans, and that he seemed to offer a solution which apparently was presented in a rather low-key fashion and was appealing to a small minority of Indians. Tecumseh's experience as a leader of a large confederation of northern Indians may have set a convincing example. Certainly the hope of British support against the Americans must have appealed to some of the Creeks. Benjamin Hawkins, who left the Tuckabatchey meetings before Tecumseh spoke, heard about the talk from his assistants, but he did not seem to be especially troubled by the event (Pound 1951:211).

In terms of immediate impact, many Alabama Indians, located just south of Creek country, appear to have been very impressed with the mystical rites of the "Dance of the Lakes" (Reid and Eaton 1817:26). Seekaboo remained with them following Tecumseh's return to the North and gave instruction to those who were willing to become prophets. The prophets believed that supernatural powers could be invoked to support the Creeks and defend them against the white people (Cotterill 1954:179).

In March, 1812, Big Warrior, who had challenged the views of Tecumseh (Pound 1951:212), travelled to Millegeville, Georgia, and assured Governor Mitchell that he was not at all influenced by Tecumseh and the prophets (Pound 1951:213). During that same month, however, a small group of warriors, apparently returning from a visit to the Shawnees and acting upon erroneous information that the war between the Indians and Whites had begun, massacred seven families on the Duck River (Pound 1951:215; Reid and Eaton 1817:28). On May 23rd, a traveller, Arthur Lott, was killed by some Tallasie Creeks attempting a robbery, and in June, a family on the Duck River was killed by Hillabees who believed that the family had killed an Indian woman (Reid and Eaton 1817:28).

Correspondence between Creek chiefs and Benjamin Hawkins through this period reveals that many Indians were as alarmed at these incidents as were the Americans (Pound 1951:215). The chiefs took measures to eliminate the trouble by sending a party of warriors to execute the guilty persons. By August, the Creek council reported that six Indians had been executed for murder and seven whipped for robberies. They also reported that the leaders of the Indians involved in the Duck River massacre, the Little Warrior and his nephew, had escaped (Pound 1951: 215). In retaliation for what they felt was unfair and unwarranted action by the Creek council, Little Warrior's clansmen killed nine of the warriors sent by the council and burned several villages friendly to Hawkins (Cotterill (1954:178).

In the meantime, newspaper articles in the American states vividly (and often inaccurately) described clashes between Indians and Whites, and the Tennessee legislature passed a resolution demanding that the Creeks be crushed and that Hawkins be removed from his post (Pound 1951: 218). News that the Creek chiefs were taking steps to remedy the situation seemed to quiet public opinion for a time (Doster 1974:60), and the first few months of 1813 were quiet ones. Although there were reports that the hostile Creeks were regularly trading with Pensacola, and that the British had promised them arms in Pensacola to use against the Americans, Hawkins nevertheless expected tranquility (Pound 1951: 223). Alexander Cornells reported to Hawkins that the prophets seems to be mostly Alabama Indians, but that the Creeks were very divided in their support of the anti-civilization program of the prophets.

Hearing that Tame King and the resident half-breed trader in Tame King's town, Peter McQueen, were supporting the prophets, Big Warrior questioned them. They denied that they were encouraging any hostilities (Pound 1951:224). The peaceful chiefs, led by Big Warrior, told them that they would call upon the prophets to demonstrate their miraculous powers. Unfortunately, a messenger sent by the peaceful chiefs had been a warrior executioner, and when he reached the hostile camp, he was killed and scalped (Pound 1951:223).

By the middle of June, 1813, the hostile Indians had burned the home of a Captain Isaacs and killed two more warriors. They boasted of vengeance and predicted that earthquakes would swallow up the white people. They let it be known that they intended to destroy the council towns of Tuckabatchey and Coweta and to kill all those chiefs who continued to support Hawkins and his civilization program (Pound 1951:224). The hostile Indians at this time were reported still to be mostly Alabama Indians (Doster 1974:74). Tame King and Peter McQueen took issue with the decision to execute the Duck River murderers, and with the support of at least 300 Tallassee warriors, they tried to take control of many upper Creek villages by terrorist tactics (Doster 1974:72).

Alarmed, Big Warrior wrote to Benjamin Hawkins asking for aid in the defense of Tuckabatchey. Hawkins, convinced that the hostilities were more a civil disturbance among the Creeks than a threat to the

Americans, suggested that Big Warrior and his supporters attack the prophets (Pound 1951:224). At the same time, Hawkins sent an assessment of the situation to Washington in which he stated that the hostilities seemed to be confined to the Creeks themselves. He feared, however, that if the majority of Creeks were subdued by the prophets, they could be expected to turn against the Americans with the promised British support (Doster 1974:75). Hawkins also reported that Creek chiefs had been sent to Tame King asking him to cease the hostilities, but the old chief declared "his determination to persevere until he destroyed all who aided and assisted to put the murderers to death... He had his bows, arrows, and war clubs, and with the magic powers he possessed, aided by the British and Shawanees, who were now coming from the northwest,...he was able to crush the Americans, and would do it." Hawkins added that the chiefs felt they were in their present untenable position because of "their fidelity to their treaty stipulations with Washington. In giving satisfaction for the murders...which it was the duty of their nation to do, they are placed in a war attitude by their opponents. By doing justice to the white people, they are to be punished with death" (Doster 1974:76).

In July 1813, a young Indian, Latecau, is reputed (Halbert and Ball 1895:94) to have invited many Indians to the very old town of Coosa for a demonstration of the magic of the prophets. Latecau and eight other young men performed the "Dance of the Lakes." Then, without warning, they attacked and killed three friendly chiefs attending the dance. The remaining chiefs fled, but they returned with warriors and killed the nine young prophets. Afterwards, they went to Little Okfuskee, reputedly harboring hostile prophets, and killed some other followers of the prophets (Halbert and Ball 1895:94). Then, hostile Indians retaliated by killing cattle belonging to the friendly Indians.

Early in July, friendly Creeks under the leadership of Big Warrior were besieged for eight days at Tuckabatchey. Unable to persuade the Americans to help, the Cusseta King and 200 warriors went to their rescue (Pound 1951:227; Doster 1974:78). In late July, Peter McQueen and about 300 hostile Indians went to Pensacola while others kept Tuckabatchey under siege. On their march, this group generally terrorized the countryside, including burning the home of James Cornells, abducting his wife, killing another man, and firing upon whomever they met. They carried a letter, brought by Little Warrior from the northern Indians, that they hoped would get them a supply of ammunition from the Spanish governor. The governor was reluctant to give them much ammunition, but did give them 300 pounds of powder and a quantity of lead (Halbert and Ball 1895:127).

On their return, the Indians and their loaded pack horses camped at Burnt Corn Creek. Colonel Caller of the Mississippi militia had raised 175 volunteers to pursue them, and on July 27, this force surprised the Indian camp. The Indians at first returned the fire, but then fled. Thinking the Indians had been routed, the militiamen began to lead off the horses loaded with ammunition. The Creeks recognized the opportunity and, taking advantage of the disorder, they attacked and forced the militiamen into a hurried retreat (Halbert and Ball 1895:129-

142; Doster 1974:80). Few were slain on either side in this skirmish, but the rout of the Whites and friendly Indians was encouraging to the hostile Creeks. As reports of this affair reached the southern states, plans were laid to raise militia in readiness for an opportunity to enter the battle (Doster 1974:80).

As fear of the Indians grew, more than 550 settlers, Negroes, Spanish, and Mississippi militia gathered at Fort Mims. On August 30, 1813, the men assigned to defend the fort were lazily recuperating from an all-night party when a force of Indians attacked. Reports vary concerning the number of attackers, but the results were that most of the occupants of the fort were killed (Halbert and Ball 1895:143-182). Inflamatory news articles about this incident caused a general rise of public opinion against the Indians, particularly in Tennessee (Pound 1951).

Contingents from three states soon began preparations to subdue the Creeks: armies were formed by General Andrew Jackson in Tennessee, General John Floyd in Georgia, and General F. L. Claiborne in Mississippi. Jackson's directive to his soldiers was typical of Tennessee sentiments: "Already are large bodies of the hostile Creeks marching to your borders, with their scalping knives unsheathed, to butcher your women and children: time is not to be lost. We much hasten to the frontier, or we shall find it drenched in the blood of our citizens!" (Reid and Eaton 1817:32).

There followed a series of engagements against the Creeks as the armies marched into present-day north Alabama from three directions. On October 28, Littafutchee Town was attacked, the houses destroyed, and Indian prisoners taken. On November, Colonel Coffee, with part of Jackson's force attacked Tallusahatchee, and 186 Indians were killed: "Two were killed with arrows, which, on this occasion, formed a principal part of the arms of the Indians; each one having a bow and quiver, which he used after the first fire of his gun, until an opportunity occurred for re-loading" (Reid and Eaton 1817:50). The battle of Talledega followed on November 9. Friendly Indians in Talledega were besieged by a large force of 3,000 hostile Creeks. Jackson with 1,200 infantry and 800 calvalry set out to rescue the friendly Creeks (Halbert and Ball 1895:270).

The Hillabee Indians, who apparently were among the Indians besieging Talledega, approached Jackson after being defeated, asking for a peace settlement. While the Indians were waiting for his reply, General White and his east Tennesseans, on their way to join Jackson, attacked and destroyed the Hillabee encampment. The Indians tried in vain to surrender. The Americans lost not a single man as they swept the Hillabee camp. The Hillabee survivors afterwards became vehement supporters of the prophetic movement, fighting with a "vindictive fierceness" (Halbert and Ball 1895:271).

The Georgia militia constructed a string of forts for supply purposes from the Chattahoochee River into the middle of Creek country.

Four hundred friendly Indians, including Mad Dog of Tuckabatchey, assisted the Georgia troops at the battle of Autossee on the Tallapoosa River. At this battle 400 houses were burned and 200 Indians killed. The militia, under General Floyd, then returned to Fort Mitchell (Halbert and Ball 1895:273; Doster 1974:88). A much smaller contingent of Georgia troops set out a week later with 530 men, bound for Nuyaka. Because of very rainy weather, it took this army seven days to reach their objective. On December 16, they approached the deserted village of the Mad Warrior, near Nuyaka, and burned eleven houses there. A day later, they burned 85 houses at Nuyaka also deserted, after they had removed food for their own use (Georgia Military Affairs, Vol. 3, 1801-1813: 316-321).

By December, the hostile Indians, now commonly known as "Red Sticks" because their war clubs had painted red handles, had won many adherents. Their number was estimated by Hawkins at about "2,500 without the new converts," (Pound 1941:231).

In mid-December, 1813, many of the Red Sticks were camped at the Holy Ground on the Alabama River, about two miles north of the modern town of White Hall, Alabama. Here the river turns to run nearly west and Holy Ground Creek descends to the northeast before joining the river, and "Within the horseshoe or peninsula formed by the Creek and the river stood Holy Ground Town" (Halbert and Ball 1895:265). Two springs within the horseshoe and two ravines on the west made this a natural fortification. Descriptions of the Indians' defenses include pickets enclosing those areas not having natural geographic defenses. "In addition to the pickets, a long low pile of finely split lightwood was laid, on the outside of the town, extending entirely across the neck of land. The prophets assured their credulous people, that should the White people ever come and attempt to make an assault on their town, they would fire this consecrated fuel, whereupon every white man would at once fall lifeless to the earth," (Halbert and Ball 1895:248).

The Indians were aware of General Claiborne's advancing troops, and women and children were evacuated from Holy Ground early on the morning of December 23. Claiborne attacked late in the morning from three sides. The terrain was such that his troops were not well coordinated, and the tempo of the battle was uneven. Among the twenty-one Indians killed was one identified as a Shawnee prophet; possibly this was Seekaboo. Choctaw Indians assisting Claiborne sacked the town, food stores were carried away to supply the army, and what remained was set on fire. Claiborne's army spent the following day destroying nearby settlements, after which they returned to Fort Claiborne where the army was disbanded.

In January, the army commanded by Andrew Jackson, in camp near Emuckfaw Creek, was attacked by a large force of Indians early in the morning. The battle raged all day with Jackson's force finally routing the Indians. The next day, Jackson prepared to move his troops to Fort Armstrong at Ten Islands. The Red Sticks kept a careful watch on the Tennessee army as it moved slowly to Enotichopco Creek in search of a

place to ford the Talapoosa River. The Indians planned to ambush the troops at the ford, but Jackson, realizing this, crossed the river at another place. The Indians attacked Jackson's rear guard as they crossed the river, and after a fierce fight the Tennesseans were finally forced to retreat (Reid and Eaton 1817:135). Indian casualties were sufficient to deter them from further pursuit of Jackson, who returned to Fort Armstrong and discharged most of his troops (Reid and Eaton 1817:139).

In March, with a new army composed of Tennessee militia, United States Regulars, and friendly Creeks and Cherokees, Jackson headed back toward Nuyaka, near which the Indians had selected a strong defensive position. Here, the Tallapoosa River makes a tight bend, with a narrow neck of elevated land in between. Across this neck the Indians had constructed a substantial log-and-earth barricade. General Coffee was detailed to take his mounted infantry and friendly Indians around the southern bank of the river to prevent the Indians from escaping in that direction, while Jackson prepared his militiamen and regulars for a frontal assault on the barricade. Thus, the stage was set for the battle of Horseshoe Bend.

Indians from the villages of Okfuskee, Hillabee, Eufaulee, Nuyaka, and Fish Ponds assembled for the battle, constructing a temporary village, called Tohopeka, on low ground within the bend of the river and behind the barricade. Jackson estimated the Red Stick warriors to number a thousand, with another three to four hundred women and children (Bassett 1926:490-492). Reid and Eaton (1817:153) speculate that the Indians had "determined to perish or be victorious" since they had not followed the usual practice of evacuating their women and children.

At ten o'clock on the morning of March 27, Jackson opened fire on the barricade with two small pieces of field artillery positioned on a nearby hill. A continuous small arms fire was also maintained, but there was little damage to the barricade or its defenders. Around noon, Coffee's friendly Cherokees swam the river, stole the Red Sticks' canoes, and set fire to the houses in Tohopeka village. The barricade was then stormed by the militia, and the Indians were decisively defeated. Jackson's officers counted 557 slain Indians, not including those shot while trying to swim the river. Among the dead were three phophets, who were dressed with the plummage of many birds about their heads and shoulders, and who were described as having exhorted the besieged Indians with "savage grimaces, and horrid contortions of the body, they danced and howled their cantations to the sun" (Reid and Eaton 1817:153).

Despite Jackson's claim that few Indians escaped, several leaders of the Red Sticks eluded capture for some years. Menawa, an Okfuskee war chief, and Josiah Francis or Hillis Hadjo, the Alabama prophet, survived Horseshoe Bend to protest to the King of England in 1815 that the Americans were not abiding by their treaties with the Indians (Doster 1974:128). Tame King, bound hand and foot and allegedly 95 years

old, was delivered to Jackson and died on the custody of Federal troops in June of 1814.

Jackson was given the responsibility of coming to terms with the Indians, and he sent out messages through the friendly chiefs that he would negotiate with the remaining Red Stick leaders. However, he ultimately negotiated with the friendly chiefs. The Indians were given the following conditions of surrender: they must cede land in an amount to compensate the United States for expenses incurred in making war on the Creeks; they were prohibited from contacting the Spanish or traders not licensed by the United States; they must allow the United States the right of building roads through their territory, the right to navigate all the waterways, and the right to build military posts and trading posts where necessary; and finally, they must surrender to the United States all of those persons known as prophets.

The friendly Creek chiefs protested that the lands Jackson wanted to take were lands owned by the friendly Creeks, expecting him to take the land that had belonged to the hostile Red Stick Creeks. The friendly Creeks also protested that unless the hostile Red Stick Indians were pursued and captured, they would continue to cause problems. Jackson forced the friendly Creeks to accept his provisions, including allocation of the contested land (Doster 1974:116). He insisted that the friendly Creeks' land had to be taken so that a geographical barrier of white-owned land could be maintained between the friendly Creeks and the Red Sticks in Spanish Florida, where they had sought refuge among the Seminoles. The treaty with the friendly Creeks was signed at Fort Jackson, the site of old Fort Toulouse, on August 9, 1814.

APPENDIX II

UNDERWATER ARCHAEOLOGY PROJECT

by
Walter N. Dietzen

During the last two weeks of the Georgia State University summer field school, and for several weekends during the succeeding fall and spring, Nicholas and Callaway Dietzen, both certified scuba divers, with Park Ranger Ronald Warfield assisting above water, conducted an underwater archaeology project at Horseshoe Bend National Military Park.

The project was motivated by historical accounts (e.g., Jackson's letter to William Blount) in which it was stated that about 200-250 Indians had been killed in the river by General Coffee's riflemen, or had been buried in the river after the battle. Also, Fairbanks (1962: 22) had strongly recommended that scuba explorations be conducted.

Diving was carried out from a 16-foot aluminum boat powered by a 10-horsepower outboard motor. The use of this boat and motor was graciously provided by Park Superintendent James Kretchman. Fortunately, the distance from the boat launch to most of the study areas was not great, since the trips upstream in a small boat loaded with air tanks, concrete blocks, diving gear, and three people was very slow.

The tight bend formed by the Tallapoosa River at Horseshoe Bend National Military Park is a typical mature river meander. The river varies from 100 to 150 yards in width, and in depth from 2 feet at the rapids up-stream from the horseshoe to 20 feet at places on the down-stream side of the horseshoe. Depths below 15 feet could only be approximated because there was not enough light to read a depth gauge. At 6 feet below the surface on a sunny day, the visibility is usually less than 2 feet. After a rain, visibility, even at the shallow depth of 6 feet, is only about ten inches.

The current is not a problem except after a heavy rain when it can be as fast as two knots. When the current is this swift, it is impossible for a diver to make headway on the surface, and nearly impossible on the bottom, even if there are rocks on which to pull oneself along. When the river is at a normal stage, however, when the flow is from 0.5 to one knot, diving is not difficult.

A boat was necessary for working most areas of the bend because the dense growth and steep banks around the river made it very difficult to enter the water with heavy equipment. There was also the problem of driftwood and snakes along the bank. Water temperature was quite comfortable in the summer, but wet suits had to be used in the fall and spring months.

Five areas (labeled A, B, C, D, and E) were explored during the course of this project (Figure 1). Area A was located at the approximate point where the north end of the barricade would have approached the river. This area also included a large island, to which fleeing Creeks might have attempted to swim. Area A was also chosen for careful search because here the river bottom is rocky with many places where artifacts might have lodged.

Area B was located in the toe of the river bend, in the general vicinity of the spot where Indian canoes were sunk during the battle. The river was shallow in this area, and there were sand bars and other evidence of recent silt accumulation. It is likely that this portion of the river has undergone considerable alteration since 1814.

Area C was located opposite the approximate point where the north end of the barricade would have met the river bank. Here, the river bottom was flat and uniformly sandy, with an average depth of 10 to 12 feet. Only close to the banks and in a few other widely scattered spots was exposed rock encountered.

Area D was located approximately 300 yards upstream from where the eastern park boundary crosses the river. This was an area of shoals, and it was thought that, as with Area A, the rock formations might have served as "traps" for artifacts. At one point, the river almost can be forded by stepping from one large rock to another. The water here is approximately eight to ten feet deep, and the current is swift.

Area E, a broad, shallow, and swift-flowing portion of the river, was located about 2 miles upstream from the river bend and opposite the extreme northeast end of the Nuyaka village site. Here, the river can be crossed by wading. It was thought that this may have been the location of a "ford" described by Hawkins (1848:47) in 1798-99. A thorough search was made along the base of these rapids in a 12-foot deep pool.

During our searches, two concrete blocks were attached to 100 feet of nylon line, with plastic floats secured to each block in order to mark its position. The diver would position the first block as close to the bank as possible in shallow water, and then drift back with the current for a distance of 100 feet and drop the second block, which acted as an anchor. The diver would then swim upstream sweeping the bottom with a Fisher Mark V underwater metal detector, listening to the audio indicator and at the same time making a visual search of the bottom. As long as the diver kept his face mask close to the bottom, he was able to make a good visual search in all areas less than fifteen feet deep. By swimming upstream, the diver could also use the current to his advantage, in that it would immediately sweep away any stirred-up silt.

When the diver reached the second concrete block, he would pull it out from the bank three to four feet, surface and signal to the person

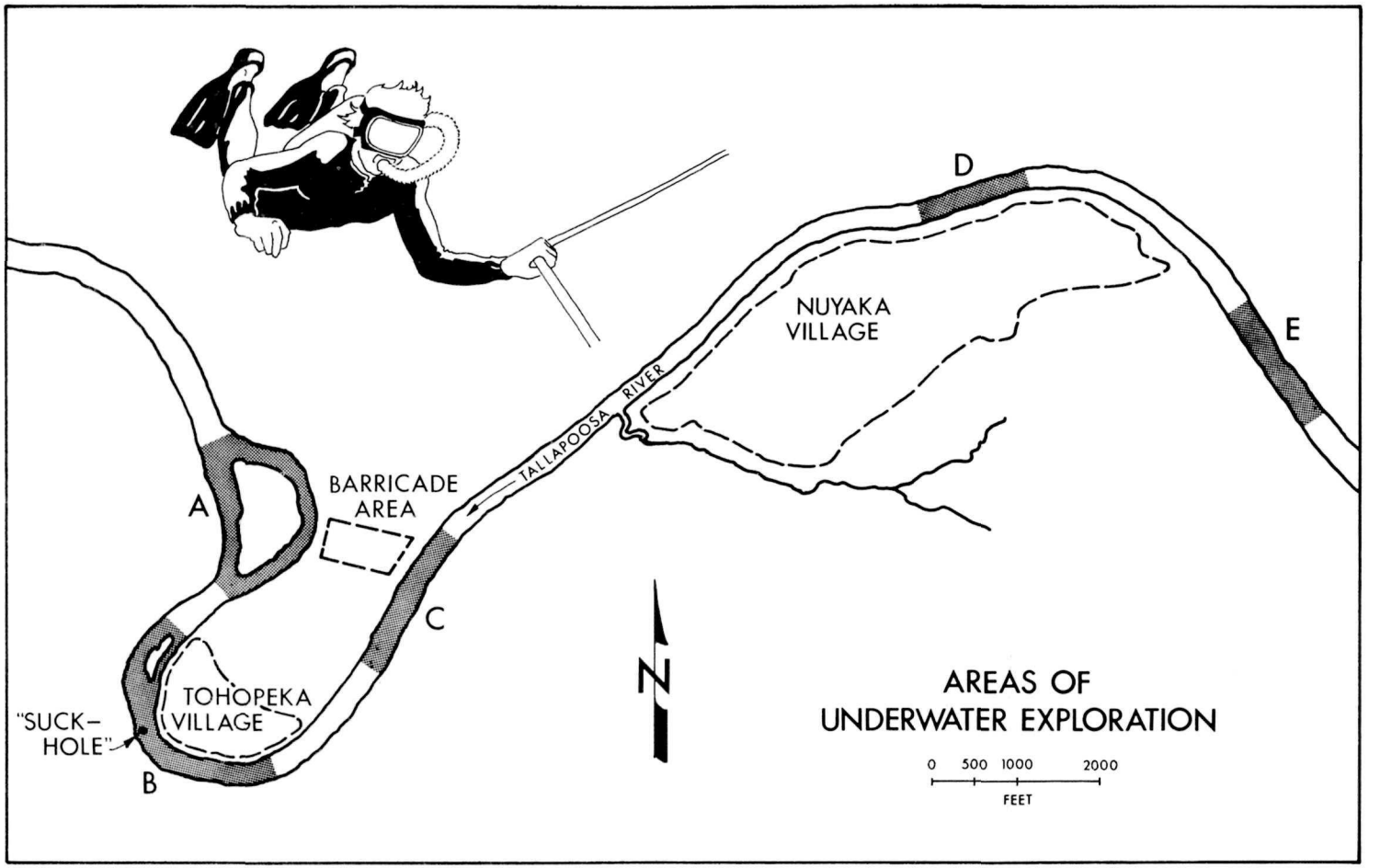

Figure 1. Areas of Underwater Exploration at Horseshoe Bend.

in the boat to do the same to the downstream block. Then, the diver would float downstream and repeat the process until he was about halfway across the river. At that point both blocks would be moved 100 feet upstream and back to the bank.

At first, it seemed unnecessary to search beyond the middle of the river because of the likelihood that most artifacts would be found on the bank closest to the military action. Later, spot checks also were made of the opposite bank in hopes that the current might have moved artifacts in that direction. This was done even though it seemed that any artifacts, especially metal, would have remained reasonably close to the spot where they first fell. This assumption was supported by Alan Albright and Lee Spence (personal communications), who are both familiar with archaeology in South Carolina muddy rivers. Spence stated that he had found Civil War artifacts lying on river bottoms in exactly the same spots where they had been dropped over a hundred years ago.

Using the method which I have described, Area A, which extends from just above the Highway 49 bridge to the upstream tip of the large island, was thoroughly searched. The only artifact found in this area that could be attributed to the nineteenth century was a small metal trap, possibly a muskrat trap. It was lying on the river bottom close to the bank in the downstream portion of area A. The trap was heavily oxidized and incomplete. The lack of any other artifacts in this area was very discouraging, since it was thought to be a promising location for battle-related items to have accumulated. Time and again while working in this area, a strong indication on the metal detector would yield only a drink can or an ore-bearing rock. Drink cans and modern scrap metal commonly were found buried under 18 inches of sand and rock, and these items would be in a perfect state of preservation. These finds showed how quickly even light objects can be buried on the bottom of a Piedmont river.

The large number of modern objects found in Area A suggests that this area does provide a natural trap for articles dropped in the river, or that it is frequented more by thirsty fishermen than the other areas searched. If the former explanation is correct, it leads one to conclude that any 1814 artifacts are buried under several feet of sand and rock. It has been demonstrated that "run off" from cultivated and cleared land is as much as 80 times higher than from land with natural cover (Leopold 1960). Since the amount of cultivated or cleared land has increased radically along the Tallapoosa River since 1814, there would have been a proportionate increase in the amount of sedimentation on the river bottom.

Several other areas along the downstream side of the horseshoe were spot checked. The "suck hole," as it is called locally, is a gently turning whirlpool located in the river bend opposite the Tohopeka village site. This feature, searched on a day when the water was not turbulent, was found to be the deepest point in the river. The divers hoped that it might have acted as a repository, but the bottom was so black

and clogged with entangling branches and debris that an adequate search could not be made.

Area B, and the bank opposite this area, was explored with no success. Area C had a flat sandy bottom and yielded only a few indications in the form of drink cans and pop bottle tops. The flat bottom in Areas B and C might be suited to the use of a towed magnetometer or a dredge. A metal detector with a larger and more sensitive search coil might detect buried metal, especially if such a detector could be improvised with wheels and towed slowly over the bottom. An operator in the towing boat could receive the indications and direct the divers on dredge operators.

As for areas D and E, they too were searched with little positive results. Area D yielded one piece of curved metal that was heavily encrusted and could not be positively identified. It may be part of a wagon wheel rim. Also in this area, three regularly spaced (approximately six feet apart) fist-sized holes were found on the lip of a large rock, only two and a half feet beneath the surface of the river.

Area E, the deep pool beneath the rapids and portions of the rapids themselves, was checked with no results. The pool bottom was saturated with ore-bearing rocks that made searching this area frustrating. Indication after indication turned out to be only a fist-sized piece of iron-bearing ore, biotitte schist, or biotite pyrite. One can only speculate that these ore-bearing rocks are heavier and have somehow tended to congregate at the base of the rapids.

After spending a total of approximately sixty hours in the Tallapoosa, and inhaling almost two-thousand feet of rented air, the divers were rather disappointed in the results of their underwater archaeology at Horseshoe Bend. Further diving would be fruitless without a better metal detector and a dredge to remove overburden. An adequate outfit also would include an eighteen-foot flat bottom boat with a twenty-five horsepower motor, a ten-by-ten foot raft floated by a 55-gallon drum supporting a 100-cubic-foot-per-minute, 100-pound-per-square-inch pump or comparable air compressor, manned by several operators.

Perhaps the most important result of the work at Horseshoe Bend is the realization that acceptable underwater archaeology can be carried out on a very limited budget and with little equipment. Including equipment and expenses, the entire project cost approximately $1,200. If this amount were applied to sites with longer occupations or to a site already known to have yielded cultural material, the results could be as interesting and successful as any land excavation.

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