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HALL

A PREHISTORIC COMMUNITY AT THE MACON COUNTY INDUSTRIAL PARK SITE

by

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A report submitted to the Town of Franklin and the North Carolina
Department of Cultural Resources, Division of Archives and History.

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ABSTRACT

In June, July, and August of 1976, archaeological salvage work was performed by Western Carolina University in an area to be included within the proposed Macon County Industrial Park. The excavations centered on a vicinity which had been identified as archaeologically significant through test trenching by Dr. John Dorwin during the summer of 1975. The purpose of the 1976 operations was intensively to study the prehistoric American Indian materials and features which would otherwise be destroyed by construction activities. This report summarizes the research and recommends that, if possible, earth-moving be avoided in the immediate area which has been identified as an ancient community. The small culturally significant portion of the Industrial Park might be preserved as a grassy landscaped area or, less desirably, as a parking lot.

The same location was used repeatedly during the Archaic and Woodland periods. Numerous postmolds hint at the outlines of houses, though earthen house floors have been disturbed by recent plowing. Hearths attest to the preparation of meals. An abundance of pottery suggests permanency or long-term seasonality of occupation. Lithic tools and debitage show that stone was processed into implements to perform a variety of hunting and household tasks. Finally, multiple burials show that the site was a home for the departed as well as for the living.

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CHAPTER I

INTRODUCTION

A new industrial park will be located in Macon County, North Carolina, near the confluence of Potts Branch with Cartoogechaye Creek, a tributary of the Little Tennessee River. The entire industrial park will cover approximately 110 acres. It is situated on the U.S.G.S Franklin Quadrangle map at approximately 35 degrees 9 minutes North latitude and 83 degrees 26 minutes West longitude. The site is located at 278 km. E and 3893 km. N on the Universal Transverse Mercator Grid, Zone 17.

On 16 June 1975 the Town of Franklin contracted with Western Carolina University for archaeological testing and salvage of antiquities on the Macon County Industrial Park and Town of Franklin Water System Project lands. Dr. John T. Dorwin conducted archaeological testing from July 20 to August 8, 1975. He divided the tract into three areas: I, a 7.78 acre portion at the northwest margin of the property and the right-of-way connecting it to an access road; II, a 1 acre portion on the hill west of the main property (water storage tank area); and III, the rest of the property, consisting of two knolls in the northeast portion of the tract and a large cornfield in the southeast. Dorwin's results are summarized in his report (1975:9):

1. Area I contained very little evidence of habitation and will not require any further mitigation of impact on cultural resources.
2. Area II contained no evidence of habitation and will not require any mitigation of impact on cultural resources.
3. Area III does contain a heavily occupied habitation zone in the field south of the Control One monument. Remains in this area will have to be salvaged

The author, Susan M. Collins, conducted salvage operations in Area III from June 16 through August 5, 1976. She was assisted in the field by Kenneth Hollingsworth, a W.C.U. Master's degree candidate in the Earth Sciences department. Mr. Hollingsworth continued his analysis of recovered materials through December 1976. His contributions to the project are innumerable. Vivian Gotthilf, a graduate student in Anthropology at the University of Tennessee, organized our field laboratory and analyzed recovered pottery rim sherds. Labor and incisive questions were provided by undergraduate Western Carolina University students Bruce Adams, A. Jordan Bell, Maureen McGuire, and Linda Roten. Their patient hard work and good humor are gratefully acknowledged. During the Fall of 1976, Miss McGuire continued her work with the project in the capacity of computer programmer.

CHAPTER II

BACKGROUND

The Town of Franklin is located in mountainous western North Carolina. It is situated in the valley of the Little Tennessee River, which flows north from the Eastern Continental Divide in Georgia. Today, U.S. 21/441 follows the Little Tennessee route, bringing tourists from the south to Franklin for mountain vacations. The metamorphic rock deposits containing semi-precious gemstones are a major attraction. Another important attraction of the region west of Franklin are the several lakes artificially created by the T.V.A..

To improve the domestic water supply in Franklin and to meet the needs of the proposed industrial park, Cartoogechaye Creek will be tapped as it flows east from the Nantahala Mountains toward the Little Tennessee. The new water storage tank, adjacent to the Industrial Park site, is 4.7 linear kilometers (2.9 miles) west of the Little Tennessee River.

The elevation of the site is 2110 feet above sea level. It is on an 8% slope with a SE exposure. The surrounding sterile clay-like soil has a deep rust color; it bakes to a hard surface in the summer heat. The soil belongs to the Hayesville-Rabun-Chester Association (USDA 1972).

The Industrial Park site has recently been utilized for corn farming, and the presence of a small corncob in one of the aboriginal postmolds suggests that maize (Zea mays) was cultivated here also in prehistoric times. Nutshell fragments in midden soil

vanished race, as many people then believed. Alternative theories proposed that the mounds were built by Mexican Toltecs, a lost tribe from Israel, or an extinct race of giants. Thomas concluded that the mounds resulted from American Indian labors (Silverberg 1970).

Very little has been published concerning the archaeology of Macon County. While the 1930's saw intensive archaeological excavations in Clay County as part of a public works program (Setzler and Jennings 1941), there is no literature to suggest that Macon County had similar projects. More recent investigations of Appalachian prehistory have included Macon County; specifically, the University of North Carolina conducted an archaeological survey of the county in 1963 (Keel 1972:11). These data remain unpublished to date.

TABLE I

Prehistoric Earthworks in Macon County, North Carolina¹

- (1) Mound at Franklin, on the west bank of the Tennessee River. This is the Nikwasi Mound,
- (2) Mound on the west bank of the Little Tennessee River, nearly opposite the mouth of Cowee Creek,
- (3) Mound one mile west of the Little Tennessee River, above the mouth of Iola Creek.
- (4) Mound on the south side of Cullasaja Creek, two miles from Franklin.
- (5) Mound on the west bank of the Nantahala River, two miles below Jarretts.
- (6) Mound on the east bank of the Nantahala River, opposite the mouth of Chowee Creek.

¹ Extracted from: Cyrus Thomas (1891), "Catalogue of Prehistoric Works East of the Rocky Mountains," Bureau of American Ethnology, Bulletin 12.

CHAPTER III

PROJECT RESEARCH DESIGN

The Cherokee Indians are known as a 'civilized tribe.' They were called that by Europeans who were impressed by Cherokee accomplishments, for in barely a century the Cherokees established and maintained a national school system, a bicameral legislature, a press and newspaper, a system of local and supreme courts, a national police force--in short, the entire institutional complex characteristic of a European nation. (Wahrhaftig 1975:132)

In his recent essay, Albert Wahrhaftig describes the complexity of early historic Cherokee culture as reflected in innovations which followed the first contacts with Whites. He argues that innovations in Cherokee culture do not result from outside force alone, nor from the desires of "progressive" individuals who wish to give up their old ways. From studying recent innovations among the Oklahoma Cherokee, Wahrhaftig concludes that it is the conservative people who make real changes in their quiet struggle to preserve the old way of life. It was a group of conservatives who recently established a secular Cherokee language school, because their "progressive" church had discontinued the practice of singing in Cherokee.

One might propose that the "civilized" tone of traditional Cherokee life has very deep roots in time. I suggest that the 18th-19th century Cherokee institutional complex appreciated by some Europeans resulted not from rapid advancement but, rather, from the Post-Contact tailoring of a traditionally sophisticated prehistoric way of life. In theory, this prehistoric pattern would not correspond to the usual definition of a "tribe" or egalitarian society, but would fit the criteria of a "chiefdom" or rank society, with formal

political leadership vested in a high status chiefly office.

A theoretical goal for doing archaeology in the Cherokee area is to probe evidence for past social and political organization.

Some cultural anthropologists maintain that it is possible to recognize prehistoric chiefdoms from an analysis of material culture (Service 1975:304):

'Chiefdoms' seem to be clearly distinct from segmental (band or tribal) societies. Archaeological deposits very visibly reveal, for instance, the hierarchical nature of such societies in their status burials, the subsidized specialists in the fine arts, the theocratic aspects of many of the public monuments, and the granaries and foreign trade items that bespeak redistribution.

A general hypothesis for work at the Macon County Industrial Park site is:

H₁ - Before the arrival of Whites, the occupants of Macon County lived in a chiefdom or rank society.

Specific hypotheses or test predictions derive directly from

Service's list of indicators:

H₂ - The pattern of burials will demonstrate that some individuals were interred more elaborately than others.

H₃ - Arts will show a professional quality.

H₄ - Public religious and governmental monuments will exist.

H₅ - Granaries or public storehouses will show that surplus food was collected for redistribution to the needy.

H₆ - Foreign trade items will be present as luxury goods.

Specific goals of the 1976 project reflect a concern with the above hypotheses, as well as the necessity for simply saving threatened materials and recovering information which would otherwise be lost.

1. The 1975 test trench through Area III identified two human burials, stimulating our research interest in prehistoric mortuary practices. Common decency also required that human remains be carefully and respectfully moved if threatened by construction. Relocation, analysis, and removal of these burials was the first priority in the field.
2. Of all the Indian arts and crafts, pottery is most likely to endure through long periods of time. Potsherds were collected for a variety of purposes:
 - a. Comparing the pottery styles at the Macon County Industrial Park site with pottery styles at other excavated archaeological sites in western North Carolina would enable us to cross-date the occupation(s).
 - b. Comparisons between the techniques of pottery manufacture at M.C.I.P. and other sites in North Carolina, Georgia, and Tennessee would enable us to discuss relationships between this community and other cultures in the Southeast.
 - c. Analysis of variability within each type might suggest whether the pottery was made by a few ceramic specialists or by all households.
 - d. Stratigraphy or vertical layering of different types would enable us to perceive the number of occasions when the site was occupied, as well as to determine which features corresponded with specific phases.

- e. Differential distribution of pottery within a single horizontal plane would aid in defining activity areas within the site.
3. The definition of architectural features is an important goal of excavation. The 1975 test trench discovered 49 postmolds, but they were not identifiable as forming clear alignments which could be interpreted as building outlines. In addition, Dr. Dorwin located 4 features, generally consisting of shallow depressions with oxidized and compacted soil, indicative of burning. It is important to interpret the function of these postmolds and depressions.
 - a. Are they the remains of domestic or special purpose architectural structures?
 - b. Can any structures be recognized as monumental?
A "monument" is defined as "a structure erected in remembrance of a person or event" (Merriam-Webster 1974).
 - c. Are storage facilities present? Are these small, corresponding with individual households, or are they the domain of the community at large?
 4. Exotic stone artifacts at many prehistoric Woodland sites reflect wide trading networks. Are the lithics at M.C.I.P of local origin, or were they imported? As with ceramics, stone tools also show culturally-specific variations in techniques and styles of manufacture. In particular, an analysis of projectile points can show outside contacts and also help in cross-dating the site.

In summary, the salvage operation at the Macon County Industrial Park site has both practical and theoretical goals. One basic concern is to protect and preserve materials which would otherwise be lost.

Another, equally significant, goal is to actually expand our knowledge concerning the ancestral American Indian populations of western North Carolina.

CHAPTER IV

METHODOLOGY

Prior to the beginning of the 1976 excavations, the site was photographed from Control Point One, atop a knoll north of Area III, the vicinity previously identified as requiring salvage. The dark brown soil coloration of the inhabited area contrasts markedly with the surrounding sterile red soil. Contour mapping of the site continued throughout the field season.

Excavation strategy revolved around two priorities: (1) to relocate and remove the burials discovered during 1975 and (2) to identify alignments in the postmolds of the original test trench and discover architectural context by expanding the dig east and west.

The first necessary operation was therefore to relocate the 1975 test trench. This was no easy accomplishment, since spring plowing had obliterated all surface indications which would have shown where our colleagues had worked. We used directions provided in the test report (Dorwin 1975:6):

The transect across the occupation zone was made by sighting from Control One to the concrete monument at the edge of Cartoogechaye Creek, N-06 degrees 34' 39" -W and 546.21 feet away, and reversing the telescope 180 degrees. In this manner the transect sighted S-06 degrees 34' 39" -E from Control One. A stake was set at 208 meters, calculated by stadia interval. This point was termed 0-0 of a grid system.

We followed the steps of sighting the concrete marker, verifying the bearing of that marker from Control One, and rotating the telescope 180 degrees. Using a stadia rod to measure distance by stadia interval, a point 208 meters from Control One along the S-06 degrees 34'39"-E bearing was staked as the datum (OEOS) for our excavations.

The OE baseline was established along this bearing, and student workers were assigned to 1-meter square test pits, each pit being designated by the coordinates of its southeast corner. Excavation of squares proceeded in arbitrary 10-centimeter vertical levels, measured from the surface at the SE corner of each pit.

Within several days, many postmolds and a hearth were discovered. Following the objective of exploring alignments of features, our original trench was widened to reveal still more postmolds.

While recovery of architectural data proceeded most fruitfully, the burials had not been relocated by the middle of the second week. It was apparent that we had not intercepted the 1975 test trench. Mr. Bill Parrish, the Franklin City Engineer, suggested that the 1975 test trench lay to the west of our excavations; he pointed to a pole on the south side of the access road and suggested that the 1975 trench ran along a line between that pole and Control Point One. We resurveyed the pole from Control Point One and found that it lay nearly due South, and not Southeast. In order to intercept this line, we dug test pits along the 25W line of our original grid. The burials were quickly found.

For the remainder of the field season, excavation proceeded along several fronts: (1) recovery of burials near the 25W line and (2) exploration of habitation remains in the vicinity of the OE line. In order to explore the relationship of the burial area to the habitation area, a cross-trench (3) was developed along the 10S line.

The excavation assumed the general shape of a capital "H" letter. During the 8-week field season, workers excavated 48 one-meter squares:

2E7S, 2E8S, 2E9S, 2E10S

1E6S, 1E7S, 1E8S, 1E9S, 1E10S, 1E11S, 1E12S

0E6S, 0E7S, 0E8S, 0E9S, 0E10S, 0E11S, 0E12S

1W10S, 1W11S, 1W12S

2W10S, 2W11S, 2W12S

3W10S, 3W11S, 3W12S

4W10S

5W10S

7W10S

9W10S

11W10S

13W10S

15W10S

17W10S

19W10S

21W10S

23W10S

24W8S, 24W9S, 24W10S

25W8S, 25W9S, 25W10S, 25W11S, 25W13S, 25W14S, 25W15S.

Each square was excavated in 10 cm. levels until either a feature or sterile soil was encountered. All grid squares were excavated to a depth of at least 30 cm. below surface; the most fruitful ones were excavated as deeply as 60 cm. below surface.

Data Collection

After completing the excavation of a 10 cm. level, each worker recorded his findings in his field journal notebook and completed a level summary form (see level form example, Appendix V). If variations in soil color or texture were observed on the level floor, a scale plan was drawn. Features, including postmolds, were photographed. The journals, level forms, scale plans, and photo catalog form part of the complete documentation are on file in the Archaeology Research Laboratory at Western Carolina University.

Artifacts were mapped in situ whenever possible. All excavated soil was shaken through a $\frac{1}{4}$ -inch screen to aid in recovery of small items. Potsherds, modified stone, and bone or shell fragments were bagged separately for washing and cataloguing at field headquarters. Organic materials other than bone were collected for both radiocarbon testing and botanical identification. Soil samples from midden deposits were bagged and carried to Potts Branch for flotation and recovery of light carbonized seeds and other plant parts, the left-overs from prehistoric meals. Samples from concentrations of clay-like soils were collected for X-ray diffraction analysis, which might aid in identifying the source material for pottery manufacture (see Appendix II).

CHAPTER V

ANALYSIS

During the 1976 field season, the archaeological project headquartered at a rented house in Franklin. The house served as meeting hall, dormitory, and field laboratory. In evenings and on Monday mornings, each student worker cleaned the artifacts he or she had personally excavated. Wet potsherds, artifactual stone, and bone fragments were dried in mesh trays and were then rebagged in sacks bearing a field specimen (F.S.) number corresponding to the square and level of origin. The master list of field specimen numbers is provided in Appendix VI.

At the conclusion of the summer excavation, all materials and records were transported to their present location, the Archaeology Research Laboratory at Western Carolina University, Cullowhee, North Carolina.

The 1976 excavations revealed postmolds defining at least two superimposed structures, apparently houses. Two hearths, one of them stratified, and a storage cist are cultural features in the habitation area. In addition, two burial pits were excavated, one containing the charred remains of a single individual and the other containing bones from four persons.

Artifact Inventory

1. Ceramics. Potsherd distribution tables are provided in Appendix I.
1. No complete or restorable vessels were found, although 508 rim fragments were recovered. Attributes of form and location for

each rim sherd were recorded and subjected to Chi-square testing for significance of co-occurrence (Spaulding 1953). The results of this analysis are shown in Appendix IV.

2. Lithics. Tables showing the distribution of artifactual stone are provided in Appendix VII, and the results of Chi-square testing of attributes for the 161 recovered projectile points are shown in Appendix VIII.

Classification Procedures

1. Ceramics. Our approach to pottery study is characterized by a disinclination toward the traditional table-top sorting into subjective "types." We profoundly distrust what Anna Shepard (1961) called "pottery sense", a highly developed intuitive capacity for classification. Many years of handling pottery in any area certainly gives one feelings about real variation, but these feelings are difficult to communicate to others and, therefore, impossible for an independent investigator to replicate in a scientifically objective manner. Ultimately, any description of a pottery type must list individual attributes -- paste composition, temper, thickness, rim form, surface treatment, etc. We prefer to focus on attributes (cf. Cowgill 1977), enlist the aid of computers to objectively analyze their covariation, and save our mystic powers for non-archaeological pursuits.

Listing the attributes of individual potsherds is a slow and painstaking process. If analysis is to proceed apace with excavation, it is necessary to select a sample from the universe

of all excavated potsherds. During the field season, laboratory analyst Vivian Gotthilf separated the rim sherds from vessel body sherds, and she recorded the following attributes for all the rim sherds.

FORMAL ATTRIBUTES

1. Rim Profile (Straight; Everted; or Inverted)
2. Rim Type (Slight rim fold; Fillet showing finger impressions or fluting; Unmodified; or Undistinguishable)
3. Maximum Thickness
4. Temper
5. Color
6. Surface Treatment (a, Finger impressed, stamped and finger impressed;
b, Tooled, stamped and tooled, plain and tooled;
c, Stamped;
d, Punctate;
e, Incised;
f, Incised and punctate;
g, Plain;
h, Notched lip;
i, Unique;
j, Unclassified.

LOCATIONAL ATTRIBUTES

1. Position on East-West Axis (Grid Square)
2. Position on North-South Axis (Grid Square)
3. Vertical Position (10-cm. level)

Ms. Gotthilf prepared an index card for each rim sherd. Her primary reference for identification of surface treatment was the ceramics section of Wauchope's (1966) report on his northern Georgia archaeological survey. After the conclusion of the field season, the data on the index cards was keypunched by Maureen McGuire, who ran the data through program CROSSTABS of the Statistical Package for the Social Sciences (SPSS) (Nie et al. 1975; Klecka et al. 1975) on the W.C.U. Xerox computer. Program CROSSTABS applied the Chi-Square (χ^2) test of strength of co-occurrence for all combinations of formal and locational attributes. The results are provided in Appendix IV.

After the field season, while Ms. McGuire was processing the attribute analysis of the rim sherds, Kenneth Hollingsworth studied the body sherds. He examined all the body sherds associated with postmolds or other features; in addition, he randomly selected a 20% sample from all general level bags. Mr. Hollingsworth recorded data on surface treatment for these potsherds. His primary reference was Keel's (1972) "Woodland Phases of the Appalachian Summit Area", though Wauchope (1966) and other references were also used. In addition to his surface treatment analysis, Mr. Hollingsworth compiled numerous charts and diagrams illustrating the locational distribution of pottery within the site. These are included in Appendix I.

As a geographer, Mr. Hollingsworth is particularly interested in possible sources of potter's clay. He submitted several sherd and clay specimens to Dr. Steven P. Yurkovich, who studied them by X-ray diffraction, discussed in Appendix II.

2. Lithics. All of the lithic analysis was performed by Kenneth Hollingsworth. He began with an attribute analysis of projectile points and prepared an index card for each point with the following data:

PROVENIENCE

1. Position on East-West Axis (Grid Square)
2. Position on North-South Axis (Grid Square)
3. Vertical Position (10-cm. level)

METRIC DIMENSIONS

1. Length
2. Maximum Width
3. Maximum Thickness

MATERIAL and COLOR

As with the rim sherds, Ms. McGuire computerized the projectile point attributes and ran them through Program CROSSTABS. The results are provided in Appendix VIII.

Using Joffre Coe's (1964) typology, as well as other sources, Mr. Hollingsworth gave phase designations to the projectile points recovered from the Macon County Industrial Park site. These interpretations are provided in Appendix VII.

For the rest of the lithics, Mr. Hollingsworth prepared an inventory according to inferred functional class and raw material. His data and comments in Appendix VII are self-explanatory.

Cultural Affiliation

In his report on the test excavations at M.C.I.P., Dorwin (1975:9) states:

It is clear . . . that the site was occupied on at least three different time levels. There is evidence of a pre-ceramic occupation prior to the time of Christ, a ceramic occupation during the first milenium (sic) after Christ and a second ceramic occupation by the Cherokee during the late prehistoric and/or historic era.

These distinct occupations are inferred on the basis of typology of artifacts, rather than on clear stratigraphy.

1. Preceramic occupations. The evidence for preceramic use of the site consists of projectile points which can be cross-dated with similar types at preceramic sites or strata elsewhere in eastern North America. The variety of these projectile points suggests more than one preceramic occupation.

A single quartz Clovis point indicates a PaleoIndian occupation of the site around 9,000 B.C.. Clovis hunters pursued mammoths and mastodons during the terminal stages of the Wisconsin glaciation, and their effective hunting techniques may have hastened the extinction of these giant Ice Age elephants (Haynes 1966). The fact that our Clovis point is made of quartz, rather than chert, indicates that it was locally manufactured. Quartz occurs as a raw material at the Macon County Industrial Park site. The knoll where Control Point One is situated, 208 meters NW of OEOS, is actually a quartz outcrop. The presence of the quartz Clovis point is evidence for the site being used as a quarry some eleven thousand years ago.

Unfortunately, the Clovis point was found in the plow zone, in Level 2, 10 - 20 cm. below the present ground surface. No Clovis occupation stratum was identified at the site. It must be recognized, however, that our excavations were not particularly deep, since our principal objectives were to salvage human burials and to horizontally trace shallow occupation features. Further work at the site might reveal a PaleoIndian stratum.

As a cultural stage, the Eastern Archaic is characterized by an adaptation of hunting and gathering in the post-Pleistocene deciduous forests (Caldwell 1962). Notched and/or stemmed spear points or atlatl dart points are diagnostic artifacts.

In the North Carolina Piedmont, the early phases of the Archaic are marked by the presence of Kirk Corner Notched, Kirk Stemmed, or the smaller Palmer Corner Notched point types, made of chert or quartz (Coe 1964). These belong to the general time range of approximately 8,000 to 5,000 B.C.. At the Macon County Industrial Park site, 3 early Archaic points were found on the surface of the ground. All of these are identified as Palmer Corner Notched; two of them are made of quartz, and one is of gray chert.

The middle Archaic (5,000 to 2,000 B.C.) of the Appalachian Summit Area is marked by the Stanly Stemmed, Morrow Mountain Stemmed, and Guilford Lanceolate types (Keel 1972:31). Four Guilford Lanceolate points were recovered from our surface collection. Guilford points are particularly interesting because their willow-leaf shape is reminiscent of the Old Cordilleran-Cascade-Lerma-El Jobo form. If the Old Cordilleran is indeed

"the western equivalent of the fluted-point cultures of the Great Plains" (Krieger 1964:36), then their appearance in the Eastern Middle Archaic is an anomaly in regard to both time and place. In addition to the four surface finds of Guilford points, our excavation yielded seven additional Middle Archaic points:

- A Guilford Lanceolate from 2E9S, 0 - 10 cm. level;
- A Guilford Lanceolate from 13W10S, 0 - 10 cm. level;
- A Guilford Lanceolate from 25W15S, 0 - 10 cm. level;
- A Stanly Stemmed from 24W8S; 10 - 20 cm. level;
- A Guilford Lanceolate from 0E10S, 20 - 30 cm. level;
- A Guilford Lanceolate from 0E10S, 30 - 40 cm. level;
- A Guilford Lanceolate from 2W11S, 30 - 40 cm. level.

In short, Guilford Lanceolate points are distributed throughout the site; a single Stanly Stemmed came from the area near Burial 1.

2. Ceramic occupations. The oldest pottery in North America is from Stallings Island, near the Savannah River in Georgia.

Stallings Island fiber-tempered and punctate-decorated pottery has been dated by radiocarbon at 2515 B.C. (Meggers 1972).

Other districts in the Southeast soon saw the similar development of fiber-tempered pottery:

The earliest pottery, dating about 2000 B.C., appeared nearly simultaneously in the shell-mound communities of the St. Johns River in Florida, the Savannah River and adjacent coast line in Georgia and South Carolina, and the Tennessee River. Vessel shapes and tempering fibers differed, but the idea was the same. (Sears 1964:261).

Keel maintains that the earliest ceramic-producing culture of western North Carolina was during the early Woodland Swannanoa Phase, from about 600 or 700 B.C. to around 200 B.C. (1972:32). Swannanoa pottery is tempered with crushed quartz or coarse sand, and it is decorated with wicker fabric impressions, cord-marking, simple stamping, or check stamping (*ibid.*:63). It is interpreted as appearing because of northerly cultural influences.

At the Macon County Industrial Park site, we found 3 fiber-tempered sherds which may predate the Swannanoa Phase and, instead, be comparable to the Stallings Island - St. Johns types. These potsherds were located in (a) grid square 1W11S, 30 - 40 cm. level, (b) a postmold in 1W11S, slightly below 30 cm. in depth; and (c) 2W10S, 10 - 20 cm. level. This portion of the excavation was in a rich midden outside of the main structure, near a storage or refuse cist (Feature 5 on the site plan). The same general vicinity yielded a late Archaic Savannah River stemmed projectile point (grid square 3W10S, at 33 cm. depth); five more Savannah River projectile points are included in the general surface collection. The fiber-tempered sherds and Savannah River points suggest a late Archaic occupation of the site sometime between 2000 and 700 B.C..

In order to consider ceramic evidence that might point to specific occupations at certain times during the major Woodland stage, it is necessary to consider the local phases as they have been defined by Keel (1972). The following brief summary will, of necessity, entail some drastic oversimplification.

1. Swannanoa Phase - 600 or 700 B.C. to 200 B.C. (Early Woodland)

Pottery: Northern Woodland ceramic tradition.

Quartz or sand temper.

Cord marked, fabric impressed, simple stamped, check stamped, or smoothed plain surfaces.

Conoidal jars or simple bowls.

Straight rims.

Other artifacts: Small stemmed points; bar gorgets.

2. Pigeon Phase - 200 B.C. - A.D. 300 (Middle Woodland)

Pottery: South Appalachian ceramic tradition,

Deptford Check Stamped horizon.

Quartz temper.

Check stamped, plain or simple stamped surfaces.

Bowls or conical jars with four wedge-shaped or conical feet.

Rims are straight or slightly flaring.

Other artifacts: Flake scrapers, bone awls, stone

gorgets, stone and ceramic pipes, celts,

Pigeon Side Notched and Garden Creek Traingular projectile points.

3. Connestee Phase - A.D. 300 - A.D. 1000 (Late Woodland)

Pottery: Synthesis of South Appalachian and Northern Woodland traditions.

Quartz temper.

Simple stamped, brushed, cord marked, smoothed plain, fabric impressed, check stamped, or complicated stamped surfaces.

Tetrapodal flat-bottomed jars, shouldered jars, straight-sided jars, globular jars, or bowls.

Rims vertical or flaring.

Other artifacts:

Haywood Triangular, Connestee Triangular, Garden Creek Triangular, or Pigeon Side Notched projectile points; flake scrapers, graters; chipped stone discs; pentagonal celts; tabular gorgets; pipes. Imported prismatic blades, polyhedral cores, and copper goods (Hopewellian).

4. Pisgah Phase - A.D. 1000 - 1550 (Mississippian)

Pottery: South Appalachian ceramic tradition.

River sand, quartz, or shell temper.

Complicated carved paddle stamped (rectilinear or curvilinear), check stamped, or plain surfaces.

Globular jars or shallow bowls.

Rims everted with added fillet; also, unmodified rims, straight rims, or inverted rims.

Other artifacts: Traingular arrow points;

microliths, flake scrapers, celts,

pipes, discoidals. Cut mica, and

mineral pigments. Shell and bone

adornments.

5. Qualla Phase - A.D. 1550 - 1850 (Historic)

Pottery: South Appalachian ceramic tradition,

Lamar horizon.

"Grit" temper.

Complicated stamped, bold incised, burnished,

plain, check stamped, cord marked, corncob

impressed, or brushed surface finished bowls,

shortnecked jars, or large constricted mouth

jars.

Rims are folded, with finger impressed fillets.

Other artifacts: Triangular arrow points; gun flints

and other Euroamerican trade goods.

It is apparent that the distinctions between the ceramic phases are not rigid. While some traits, like complicated carved paddle stamping, appear late in the sequence, other techniques were used continuously. A cord-marked vessel, for instance, could belong to any period from Early Woodland through Historic. Surface treatment does not appear to be a completely reliable clue to phase assignment. Rim form may be more accurate as an indicator for relative dating, at least for distinguishing Mississippian from Late Woodland material. The Pisgah Phase (Mississippian) everted and fillet rims are quite distinctive from any early forms.

Analysis of the distribution of sherds with various types of surface decoration and with differing rim forms suggests that different parts of the site may have been occupied at different times. These different phases correspond with the East-West axis.

The Appendix I tables show a five-way division of the site into "Units" numbered from East to West. Units I and II, the habitation area at the eastern end of the excavation, show a definite predominance of curvilinear stamped pottery. Unit III, from 4W through 11W on the 10S cross trench, shows roughly equal proportions of curvilinear stamped, simple stamped, plain, and incised decorations. Unit IV, from 13W through 21W on the 10S cross trench, shows a predominance of simple stamped pottery with an increase in plain and a decrease in both curvilinear and incised. Finally, Unit V, the burial area at the western end of the excavations, shows a predominance of simple stamped and plain, with very little curvilinear stamped or incised. On the basis of surface treatment alone, one would hypothesize that the habitation area is more recent than the burials (or that mortuary ritual involved the use of antique pottery). The best assignments would be Pisgah Phase (A.D. 1000 - 1550) for the habitation area and Connestee Phase (A.D. 300 - 1000) for the burials.

The distribution of rim forms might be used as a test for these interpretations. The tables in Appendix IV show distribution data for rim attributes, and these data generally support the interpretations above. First, most finger-impressed rims are found between 2E and 5W, while most rims found from 9W to 25W were plain. Rims with an added fillet, a Pisgah Phase trait, were concentrated

between 2E and 5W. Position on the North-South axis is not significantly correlated with rim form, while the correlation of rim form with position on the East-West axis is much stronger than could be accounted for by chance (probability due to chance alone = .00078). The distribution of rim forms, therefore, supports the interpretation of a later date for the habitation area than for the burials.

Projectile point typology suggests an even earlier date for the burials, or, specifically, for Burial 2. In the Burial 2 pit, which contained the remains of 4 individuals, three Early Woodland and one Middle Woodland points were recovered. These are of the Swannanoa Stemmed, Bradley Spike, and Copena types (Keel 1972). The presence of these points indicates a Middle Woodland date for the burials. In the absence of absolute dates, we estimate that the interments were made around A.D. 300, toward the end of the Pigeon Phase (Middle Woodland).

To summarize, we believe that the burials date from late Middle Woodland times (A.D. 300) and that the habitation area was used during the Mississippian Pisgah Phase (A.D. 1000 - 1550). Use of the site was not confined to these two phases, however. Miscellaneous finds demonstrate PaleoIndian and Archaic occupations, as well. In short, the site was occupied intermittently from around 9,000 B.C. to historic times. It was used as a burial ground around A.D. 300 and again for dwellings around A.D. 1000.

Research Results

The Woodland (Pigeon-Connestee) and Mississippian (Pisgah) components must be considered separately in evaluating the hypotheses set forth in the research design, which is oriented toward examining evidence for past political and social organization. The general hypothesis is reiterated:

- H₁ - Before the arrival of Whites, the occupants of Macon County lived in chiefdom or rank society.

The subsidiary specific hypotheses will be considered separately for the Woodland and Mississippian phases.

1. Middle to Late Woodland (Pigeon-Connestee Phases, ca. A.D. 300; westernmost area of the site excavations, burials).

- H₂ - The pattern of burials will demonstrate that some of the individuals were interred more elaborately than others.

Null: The burial patterns will not show status differences.

This hypothesis is supported by the burial pattern at the Macon County Industrial Park site. Remains of five individuals were salvaged.

Of these, one person (Burial 1) was buried in an extended position, with his head resting on a large slab of polished mica. The remaining four persons (Burials 2 A, B, C, and D) were crowded in flexed positions into a single grave pit adjacent to Burial 1. Four projectile points were recovered from the Burial 2 pit. It is not possible to determine whether or not these points represent weapons of execution. In any case, it is evident that there existed some social distinction between the person in Burial 1 and the four persons crowded in Burial 2.

Perhaps the Burial 2 people were lower status relatives, retainers,

and/or servants. The null hypothesis is rejected, and H is supported.

2

H - Arts will show a professional quality.

3

Null: Arts will show great variability characteristic of many

different artisans. Based on the sample of Woodland pottery which has been analyzed, it would appear that there is a good deal of variation, though rapid decoration and mass production could be facilitated by the demonstrated use of stamping paddles. There is not enough evidence to reject the null hypothesis, so we cannot say whether or not pottery was manufactured by a few craft specialists. Similarly, little evidence can be mustered to judge whether or not stoneworking was performed by few or many individuals.

H - Public religious and governmental monuments will exist.

4

Null: No monuments exist.

The postmolds surrounding the burials indicate that a wooden structure at one time surrounded and covered these graves. This may qualify as a monument. The null hypothesis is rejected, and the hypothesis is supported.

H - Granaries or public storehouses will show that surplus food was

5

collected for redistribution.

Null: No storage facilities are present, or storage facilities correspond with households rather than with the community at large.

No storage facilities were discovered in the western area of the excavations. The null hypothesis is accepted, and the hypothesis does not have support.

H - Foreign trade items will be present as luxury goods.

6

Null: No foreign items will be present.

The polished slab of mica under the head of Burial 1 probably originated locally, for there are outcrops of mica in Franklin.

Rather than being a luxury import, sheet mica was a special export from western North Carolina. Sheet mica appears in burial mounds of the Ohio Valley Woodland Adena culture (Webb and Snow 1974:101), and North Carolina mica was also used in high status burials at the Mississippian city of Cahokia, near modern St. Louis. The presence of a prepared piece of mica in the extended burial at Macon County Industrial Park indicates that it was regarded as a special item.

Of the four projectile points from Burial 2, one is quartz, one is quartzite, and two are chert. Chert does not occur locally, but may have been imported from Tennessee.

The null hypothesis is rejected, and it is inferred that the Woodland people here participated in a wide trading network.

Summary: Middle Woodland evidence for a rank society at Macon County Industrial Park.

H - Burial patterns reflect differential status -- supported.

2

H - Arts show a professional quality -- inconclusive evidence.

3

H - Public monuments exist -- supported.

4

H - Granaries or public storehouses exist -- no evidence.

5

H - Foreign trade items will be present -- supported.

6

The Woodland component shows three of the five indicators for a rank society or chiefdom.

2. Mississippian (Pisgah Phase, A.D. 1000 - 1550; easternmost area of the site excavations, habitation area). We are following Keel's (1972:31) use of "Mississippian" to refer to a "major period," and not to designate a tradition or developmental stage.

H - The pattern of burials will demonstrate that some of the
2 individuals were interred more elaborately than others.

Null: The burial patterns will not show status differences.
There is no evidence from the eastern section of the site that can be used to consider this hypothesis. The null cannot be rejected.

H - Arts will show a professional quality.
3

Null: Arts will show great variability characteristic of many different artisans.

The Pisgah Phase pottery is quite uniform, with curvilinear stamped designs and everted rims with finger-impressed fillets predominating. This pottery could have been mass produced by a few ceramic specialists with their own special carved paddles. The null hypothesis can be rejected, and the hypothesis is supported.

H - Public religious and governmental monuments will exist.
4

Null: No monuments exist.

There are no monuments in the eastern end of the site, but the features appear to be domestic in nature. The null hypothesis cannot be rejected.

H - Granaries or public storehouses will show that surplus food
5 was collected for redistribution.

Null: No storage facilities are present, or storage facilities correspond with households rather than with the community at large.

The single storage facility discovered is a cist surrounded by a semicircle of postmolds. Until the flotation material recovered has been identified, we cannot comment on what was stored here, nor on how many people the cist would have served. At this point, the null hypothesis cannot be rejected, since it is possible that the cist served only a single household.

H₆ - Foreign trade items will be present as luxury goods.

Null: No foreign items will be present.

Both local quartz and imported chert were used to manufacture the small, triangular, Pisgah Phase projectile points. This reflects a continuation of trade relationships with Tennessee. The null hypothesis is rejected, and participation in a trade network is indicated.

Summary: Mississippian evidence for a rank society at Macon County Industrial Park.

H₂ - Burial patterns reflect differential status -- no evidence.

H₃ - Arts show a professional quality -- supported.

H₄ - Public monuments exist -- no evidence.

H₅ - Granaries or public storehouses exist -- inconclusive evidence.

H₆ - Foreign trade items will be present -- supported.

The Mississippian component shows two of the five indicators for a rank society or chiefdom.

In conclusion, the research at Macon County Industrial Park has shown that a society with differential status ranking is indicated in Cherokee country as early as Middle Woodland times. This means that the prehistoric Indian occupants were experimenting with complex, possibly theocratic, forms of government for over a thousand years before the arrival of Whites. The Woodland period Indians buried certain individuals, possibly priest-chiefs, in special postures and with special goods, and they erected monumental mortuary buildings. They participated in a mineral trade network which crossed the Smoky Mountains. The Mississippian period occupants made highly stereotyped pottery, suggestive of craftsmen who were occupational specialists,

We must conclude that the Cherokee knew an advanced way of life long before the advent of Europeans. Their adoption of European institutions must not be seen as a rapid cultural "catching-up", but rather, as Elman Service (1975:148) has stated, as a "bureaucratic expedient."

CHAPTER VI

EVALUATION

Archaeological salvage excavations during 1976 at Macon County Industrial Park centered on the open cornfield which will eventually contain industrial plants. It was this vicinity, and not the access road nor the water facilities areas, which had been identified during 1975 test excavations as containing significant prehistoric remains. Our salvage work was purposefully intensive, rather than extensive; we were interested in thoroughly studying a relatively small area within what had been designated Area III (Dorwin 1975; see also Figures 1 and 2 in the present report).

Archaeological Resources

The salvage excavations showed that the site was occupied intermittently from around 9,000 B.C. to at least A.D. 1,000. Evidence for earlier Paleo-Indian and Archaic use of the site consisted of diagnostic projectile points found generally in the plow zone, the upper 25 to 30 cm. of soil. The projectile points and ceramics accompanying five human burials near the western edge of our excavations suggest a Middle Woodland date, around A.D. 300. The habitation area, consisting of two hearths, a cist, and many postmolds in the eastern portion of the excavations, is assigned to the Mississippian period, around A.D. 1000.

Our work focused on two primary field priorities: (1) salvaging of the burials which had been discovered but not removed in 1975 and (2) tracing of architectural features of the Mississippian occupation. Excavation of a shallow cross-trench between the burials and the habitation area demonstrated that the cultural remains immediately below the plow zone were typologically older on the western side of the excavation than on the eastern side. The burial salvage, habitation area study, and shallow cross-trench took all the allotted field time.

We suspect, but have not verified, the existence of undisturbed Archaic and perhaps PaleoIndian strata below the Woodland and Mississippian features.

Construction of factories in this locality will certainly entail earth moving which would destroy the shallow remnants of prehistoric building outlines and also injure deeper cultural levels.

Plowing has already disturbed the shallow habitation floors, making it difficult to interpret the postmold outlines. Any aboriginal mounds which may have existed in the field have long since been leveled by historic farmers. Since the features have already sustained extreme damage from plowing, we are not recommending the site for inclusion on the National Register of Historic Places. We do recommend that an attempt be made to avoid earth-moving deeper than 25 cm. (10 inches) in the immediate vicinity of our archaeological excavations (see Figure 2), in order to avoid damage to deeper levels.

Recommendations

The 1975 test excavation report recommended clearance for the water facilities and the access road. The present report on salvage excavations in Area III recommends clearance for construction of industrial plants, with the provision that the vicinity of demonstrated prehistoric burials and dwellings, approximately 625 square meters, be left undisturbed. This area could be maintained as a lawn or used as a parking lot, provided that leveling does not require scraping deeper than the plow zone, 25 centimeters or 10 inches below the present surface.

We do not plan further archaeological work at the site in the immediate future, but feel that the site does have potential for future study and should be partially protected.

Should construction activities anywhere within the industrial park boundaries reveal additional human bones, it is required that Western Carolina University or the North Carolina Department of Archives and History be notified, so that the burials could be properly removed and preserved. Such a contingency would be treated as emergency salvage.

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APPENDICES AND FIGURES

APPENDIX I

Macon County Industrial Park Ceramics

compiled by Kenneth Hollingsworth

The excavation area was divided into 5 "units." The units and the squares contained therein are:

UNIT I:	0E6S	1E6S	2E7S	
(13 squares)	0E7S	1E7S	2E9S	
	0E8S	1E8S	2E10S	
	0E9S	1E9S		
	0E10S	1E10S		
UNIT II:	0E11S	1W10S	2W10S	3W10S
(13 squares)	0E12S	1W11S	2W11S	3W11S
	1E11S	1W12S	2W12S	3W12S
	1E12S			
UNIT III:	4W10S	9W10S		
(5 squares)	5W10S	11W10S		
	7W10S			
UNIT IV:	13W10S	19W10S		
(5 squares)	15W10S	21W10S		
	17W10S			
UNIT V:	23W10S	25W9S	25W15S	
(11 squares)	24W10S	24W9S		
	25W10S	25W11S		
	24W8S	25W13S		
	25W8S	25W14S		

For each unit, the various surface treatment-types per level are presented in Table A; the counts reflect a study of 20% of the potsherds in each level bag. Secondly, percentages of surface treatment-types are presented in Table B. This was done for each unit; thus, there are 2 tables, A and B for each unit.

The "Total Sherds" column is the universe from which the 20% sample was drawn, the total number of sherds per level in all squares included in each unit.

UNIT I

TABLE A. Ceramic Sample Count

	<u>Curv.</u>	<u>Rect.</u>	<u>Compl.</u>	<u>Check</u>	<u>Simple</u>	<u>Cord-</u>	<u>Fab.</u>	<u>Bru.</u>	<u>Pln.</u>	<u>Inc.</u>	<u>Obl.</u>
Surface	6	1	1	1	1	0	0	0	2	1	2
0-10 cm.	73	5	8	7	11	0	2	1	21	1	29
10-20	65	3	8	1	12	0	1	1	25	7	21
20-30	15	3	1	2	11	0	0	0	12	1	8
30-40	1	0	0	0	3	0	1	0	1	0	0

	<u>Sample Total</u>	<u>Total Sherds</u>
Surface	15	72
0-10 cm.	158	799
10-20	144	728
20-30	53	269
30-40	6	21

TABLE B. Ceramic Sample Percentages

	<u>Curv.</u>	<u>Rect.</u>	<u>Compl.</u>	<u>Check</u>	<u>Simple</u>	<u>Cord-</u>	<u>Fab.</u>	<u>Bru.</u>	<u>Pln.</u>	<u>Inc.</u>	<u>Obl.</u>
Surface	40.0	6.7	6.7	6.7	6.7	0	0	0	13.3	6.7	13.3
0-10 cm.	46.2	3.2	5.1	4.4	7.0	0	1.3	.6	13.3	.6	18.4
10-20	45.1	2.1	5.6	.7	8.3	0	.7	.7	17.4	4.9	14.6
20-30	28.3	5.7	1.9	3.8	20.8	0	0	0	22.6	1.9	15.1
30-40	16.7	0	0	0	50.0	0	16.7	0	16.7	0	0

UNIT II

TABLE A. Ceramic Sample Count

	<u>Curv.</u>	<u>Rect.</u>	<u>Compl.</u>	<u>Check</u>	<u>Simple</u>	<u>Cord-</u>	<u>Fab.</u>	<u>Bru.</u>	<u>Pln.</u>	<u>Inc.</u>	<u>Obl.</u>
Surface	5	1	1	1	1	0	0	0	0	0	0
0-10 cm.	114	5	16	1	12	2	1	0	30	6	19
10-20	115	12	9	5	29	3	0	0	29	14	20
20-30	146	13	21	2	28	4	0	1	39	4	17
30-40	65	10	6	1	31	5	0	2	18	8	10
40-50	0	5	0	0	5	1	0	0	1	0	1

	<u>Sample Total</u>	<u>Total Sherds</u>
Surface	9	32
0-10 cm.	206	1013
10-20	236	1166
20-30	275	1367
30-40	156	746
40-50	13	52

TABLE B. Ceramic Sample Percentages

	<u>Curv.</u>	<u>Rect.</u>	<u>Compl.</u>	<u>Check</u>	<u>Simple</u>	<u>Cord-</u>	<u>Fab.</u>	<u>Bru.</u>	<u>Pln.</u>	<u>Inc.</u>	<u>Obl.</u>
Surface	55.6	11.1	11.1	11.1	11.1	0	0	0	0	0	0
0-10 cm.	55.3	2.4	7.8	.5	5.8	1.0	.5	0	14.6	2.9	9.2
10-20	48.7	5.1	3.8	2.1	12.3	1.3	0	0	12.3	5.9	8.5
20-30	53.1	4.7	7.6	.7	10.2	1.5	0	.4	14.2	1.5	6.2
30-40	41.7	6.4	3.8	.6	19.9	3.2	0	1.3	11.5	5.1	6.4
40-50	0	38.5	0	0	38.5	7.7	0	0	7.7	0	7.7

UNIT III

TABLE A. Ceramic Sample Count

	<u>Curv.</u>	<u>Rect.</u>	<u>Compl.</u>	<u>Check</u>	<u>Simple</u>	<u>Cord-</u>	<u>Fab.</u>	<u>Bru.</u>	<u>Pln.</u>	<u>Inc.</u>	<u>Obl.</u>
Surface	1	0	0	0	1	0	0	0	1	1	0
0-10 cm.	15	0	1	0	22	1	0	0	14	1	6
10-20	12	0	3	0	10	2	0	0	12	1	1
20-30	17	0	1	0	14	0	1	0	7	1	4
30-40	6	1	1	0	3	1	0	0	4	1	0

	<u>Sample Total</u>	<u>Total Sherds</u>
Surface	9	32
0-10 cm.	206	1013
10-20	236	1166
20-30	275	1367
30-40	156	746
40-50	13	52

TABLE B. Ceramic Sample Percentages

	<u>Curv.</u>	<u>Rect.</u>	<u>Compl.</u>	<u>Check</u>	<u>Simple</u>	<u>Cord-</u>	<u>Fab.</u>	<u>Bru.</u>	<u>Pln.</u>	<u>Inc.</u>	<u>Obl.</u>
Surface	25,0	0	0	0	25,0	0	0	0	25,0	25,0	0
0-10 cm.	25,0	0	1,7	0	36,7	1,7	0	0	23,3	1,7	10,0
10-20	29,3	0	7,3	0	24,4	4,9	0	0	29,3	2,4	2,4
20-30	37,8	0	2,2	0	31,1	0	2,2	0	15,6	2,2	8,9
30-40	35,3	5,9	5,9	0	17,6	5,9	0	0	23,5	5,9	0

UNIT IV

TABLE A. Ceramic Sample Count

	<u>Curv.</u>	<u>Rect.</u>	<u>Compl.</u>	<u>Check</u>	<u>Simple</u>	<u>Cord-</u>	<u>Fab.</u>	<u>Bru.</u>	<u>Pln.</u>	<u>Inc.</u>	<u>Obl.</u>
Surface	1	0	1	0	2	1	0	0	1	0	0
0-10 cm.	5	1	1	1	19	0	0	0	15	0	6
10-20	2	0	0	3	12	1	2	0	11	0	4
20-30	0	0	0	1	6	1	0	0	1	0	0
30-40	0	0	0	0	1	0	0	0	0	0	0
	<u>Sample Total</u>			<u>Total Sherds</u>							
Surface	6			17							
0-10 cm.	48			231							
10-20	35			171							
20-30	9			43							
30-40	1			2							

TABLE B. Ceramic Sample Percentages

	<u>Curv.</u>	<u>Rect.</u>	<u>Compl.</u>	<u>Check</u>	<u>Simple</u>	<u>Cord-</u>	<u>Fab.</u>	<u>Bru.</u>	<u>Pln.</u>	<u>Inc.</u>	<u>Obl.</u>
Surface	10,7	0	16,7	0	33,3	16,7	0	0	16,7	0	0
0-10 cm.	10,4	2,1	2,1	2,1	39,6	0	0	0	31,3	0	12,5
10-20	5,7	0	0	8,6	34,3	2,9	5,7	0	31,4	0	11,4
20-30	0	0	0	11,1	66,7	11,1	0	0	11,1	0	0
30-40	0	0	0	0	100,0	0	0	0	0	0	0

UNIT V

TABLE A. Ceramic Sample Count

	<u>Curv.</u>	<u>Rect.</u>	<u>Compl.</u>	<u>Check</u>	<u>Simple</u>	<u>Cord-</u>	<u>Fab.</u>	<u>Bru.</u>	<u>Pln.</u>	<u>Inc.</u>	<u>Obl.</u>
Surface	0	0	0	0	0	0	0	0	7	0	1
0-10 cm.	3	1	4	2	24	0	0	1	17	2	4
10-20	3	0	0	1	16	0	0	1	18	2	7
20-30	0	0	0	0	4	1	0	0	3	0	1

	<u>Sample Total</u>	<u>Total Sherds</u>
Surface	8	16
0-10 cm.	58	289
10-20	48	232
20-30	9	31

TABLE B. Ceramic Sample Percentages

	<u>Curv.</u>	<u>Rect.</u>	<u>Compl.</u>	<u>Check</u>	<u>Simple</u>	<u>Cord-</u>	<u>Fab.</u>	<u>Bru.</u>	<u>Pln.</u>	<u>Inc.</u>	<u>Obl.</u>
Surface	0	0	0	0	0	0	0	0	87.5	12.5	0
0-10 cm.	5.2	1.7	6.9	3.4	41.4	0	0	1.7	29.3	3.4	6.9
10-20	6.3	0	0	2.1	33.3	0	0	2.1	37.5	4.2	14.6
20-30	0	0	0	0	44.4	11.1	0	0	33.3	0	11.1

20 % Sample For The Entire Site

	<u>Curv.</u>	<u>Rect.</u>	<u>Compl.</u>	<u>Check</u>	<u>Simple</u>	<u>Cord-</u>	<u>Fab.</u>	<u>Bru.</u>	<u>Pln.</u>	<u>Inc.</u>	<u>Obl.</u>
Surface	12	2	3	1	5	1	0	0	9	3	2
0-10 cm.	200	12	30	10	86	3	3	2	92	10	61
10-20	190	15	19	10	76	6	3	2	93	22	53
20-30	178	16	23	4	58	6	1	1	62	6	28
30-40	71	11	7	1	33	6	1	2	24	9	10
40-50	5	0	0	0	4	1	0	0	0	0	1
Postmolds											
	71	0	3	4	17	3	3	0	27	6	28

BURIALS: Ceramic Sample Count

	<u>Curv.</u>	<u>Rect.</u>	<u>Compl.</u>	<u>Check</u>	<u>Simple</u>	<u>Cord-</u>	<u>Fab.</u>	<u>Bru.</u>	<u>Pln.</u>	<u>Inc.</u>	<u>Obl.</u>
Burial #1	0	0	0	0	2	0	0	0	0	0	0
Burial #2	0	0	0	21	35	12	0	1	23	0	11

MCIP: Total Ceramic Items Retrieved by Depth

	<u>Surface</u>		<u>Excavation Levels</u>					<u>Feature Association</u>		
	<u>General Surface</u>	<u>Grid Square Surface</u>	<u>0-10 cm.</u>	<u>10-20 cm.</u>	<u>20-30 cm.</u>	<u>30-40 cm.</u>	<u>40-50 cm.</u>	<u>Post Molds</u>	<u>Burials</u>	<u>Pits</u>
Body Sherds	119	148	2,583	2,362	2,052	946	52	203	84	10
Rim Sherds	11	10	129	134	131	66	3	18	4	
Discs				2	2	1		1		
Legs (pods)	1		5	3	2					
Handles				1		1				
Pipe Fragments			1		2			4		

APPENDIX II

X-Ray Diffraction of Clay and Sherd Specimens

notes by Kenneth Hollingsworth and Steven P. Yurkovich

Determining aboriginal utilization of local clay resources for the ceramics recovered from M.C.I.P. will be attempted by X-ray diffraction. A great deal of diversity exists in the gross characteristics of color and texture of ceramics from the site. Various types of clay were observed within the immediate vicinity of the site, and specimens of these were taken to Stephen P. Yurkovich of the Earth Sciences Department, who willingly agreed to run the specimens. The raw (non-fired) clays given to Yurkovich on August 9th were as follows:

1. Specimen from a bright red-orange area in grid square 3W 12S, below 45 cm.,
2. Specimen from the "pit" (see feature data forms) in 1W 11S,
3. From the podzol of the floor of 3W 11S, below 45 cm.,
4. From the podzol of the floor of 3W 12S, below 45 cm.,
5. From the lens of gray, micaceous clay found in the bank of Potts Branch.

All ceramic specimens given to Yurkovich on September 14th were body sherds, and these were isolated due to their color, texture, and surface treatment. An attempt was made to select a diversity of sherd types. Since the X-ray diffraction procedure will destroy at least a portion of the sherd, provenience data and a brief description is given below:

1. F.S. 200, 1W 12S, 20-30 cm. Two sherds.
 - (a) light tan, medium thickness (5-6 mm.), paddle stamped;
 - (b) light orange, medium thickness, paddle stamped;

2. F.S. 178, 1W 12S, 0-10 cm. Two sherds.
 - (a) dark ash-gray, paddle stamped,
 - (b) exterior and interior surfaces are orange, center of sherd is very light tan, paddle stamped;
3. F.S. 88, general surface. One sherd.

-dark brown, rust colored, micaceous luster, plain surface;
4. F.S. 326, 19W 10S, 0-10 cm., three sherds.
 - (a) light orange, "sugary" texture, plain exterior.
 - (b) light brown exterior with dary gray interior, cord-marked;
 - (c) medium brown, plain surface;
5. F.S. 230, 25W 10S, 10-20 cm., three sherds;
 - (a) dark brown, tempered with small particles of black grit, cord-marked;
 - (b) light orange, relatively thin, similar to 4a above, but has cord-marked surface;
 - (c) dark gray, extremely thin, plain;
6. F.S. 157, 1W 11S, 10-20 cm., four sherds;
 - (a) orange exterior, dark gray interior, relatively thick, with curvilinear surface treatment. This is the type referred to as Qualla;
 - (b) gray and orange, thin, micaceous, plain surface;
 - (c) dark brown exterior, well-burnished interior, incised;
 - (d) orange-brown exterior, light olive-brown interior, curvilinear treatment. Similar to 6a above, also Qualla;
7. F.S. 124, 1E 7S, 10-20 cm., two sherds;
 - (a) extremely light ashey-white, surface is plain but rough;
 - (b) dark gray, rectilinear complicated stamped, relatively high proportion of crushed quartz temper.

The line graphs and constituent minerals of the raw clay samples will be compared with those of the ceramics to determine correlations.

November 30, 1976

MEMO TO: Dr. Sue Collins
Department of Sociology & Anthropology

FROM: Steven P. Yurkovich
Department of Earth Sciences

Enclosed are the preliminary findings on the soils and sherds which I analyzed by x-ray diffraction. My descriptions are brief and none of the methodology is listed. I will elaborate on them if you so desire.

Soil Samples - In the five soils which I ran x-ray traces of, there were only slight amounts of a clay mineral present. X-ray diffraction can detect mineral species making up at least 5 wt. % of the total sample. One possibility is that I have not looked at a homogeneous (representative) sample of material. On the basis of the observed data, I believe the soil samples did not come from a clay deposit and are probably useless for pottery making.

Sherds - Eight pottery sherds were analysed. Work ended after reading several articles in American Antiquity concerning the validity of x-ray determinations. When x-ray traces are run on fired pottery samples, one is in essence only observing the crystalline material which has not been destroyed by firing (in most cases, the temper). During the firing, clay minerals are destroyed (they become amorphous and give no x-ray pattern).

A controversy is developing in the archeological literature concerning the significance of x-ray analysis of temper material. One school says that temper is part of the clay material and can be used to determine source areas. The other school of thought says temper can be and is in fact added by the potter and may not be indicative of the source area.

Dr. Collins
Page 2
November 30, 1976

Sherds 2A, 2B and possibly 4C have similar temper minerals (the proportions of minerals however are different).
Sherds 4A and 4B have very similar mineralogies; Sherds 1A and 1B also have some of the minerals as found in 4A and 4B.
Sherd 3 is quite distinct from the above mentioned groups of sherds.
I have not been able to identify its mineralogy thus far.

A recent article has appeared in the literature which might provide a more reliable method than using the temper minerals to locate source areas. The procedure uses x-ray analysis of the paste material which has been fired in a high temperature furnace and compares this to clays (fired at the same temperatures). If the x-ray patterns are similar then you have a match between source area and sherd. To use this method you must use clays from where you think the clay source was for the pottery.

Hopefully, what I've done will be useful to you. If you want more samples analyzed, please call me. This analysis is interesting and I think much information could be generated on a joint project.

fm

Soil Samples

#1 Bright red area in 3W128

#2 Pit in 1W113

#3 Floor of square 3W113

#4 Floor of square 3W123

#5 Potts Creek

The above samples all contain predominantly quartz with minor amounts of clay and limonite.

Sherds (Temper Minerals)

1A - Quartz, Amphibole

1B - Quartz, Amphibole plus other unidentified minerals

2A - Quartz, Feldspar (?)

2B - Quartz, Feldspar (?)

3 - Quartz, plus other unidentified minerals

4A - Quartz, Amphibole plus other unidentified minerals

4B - Quartz, Amphibole plus other unidentified minerals

4C - Quartz, Feldspar (?)

APPENDIX III

Postmold Dimensions

compiled by Kenneth Hollingsworth

Measurements of postmolds were taken on (1) the maximum width -- many were oval or elliptical in outline; in this case, the long axis was recorded, and (2) the depth from the surface at the southeastern grid stake. All measurements are in centimeters. The postmolds were assigned a Field Specimen number, and this is indicated on the postmold plans.

<u>F.S. #</u>	<u>Grid Square Location</u>	<u>Max. Width (cm.)</u>	<u>Depth (cm.)</u>
185	1W11S	24	73
186	1W11S	16	41
189	1W11S	14	54
190	OE11S	18	60
196	OE11S	15	56
197	OE6S	15	76
198	OE11S	11	44
202	OE12S	23	77
205	OE6S-1E6S	10	47
206	1E12S	28	87
210	OE8S-OE9S	23	51
211	1E12S	17	66
214	OE12S-1E12S	30	77
217	1E12S	23	56
220	1E11S	19	68
221	1E7S-2E7S	18	82
222	1E11S	22	46
223	1E11S	30	60
227	OE10S	25	85
228	1W10S	24	73
229	OE10S	17	83
231	1W10S	21	68
238	2E10S	22	62
239	OE10S	25	71
240	2E10S	21	48
251	1E8S	20	38
260	1E8S	18	44
264	1E8S	14	40
265	1E6S-2E6S	18	62
266	1E6S	16	76
271	1E8S	17	34
273	2W12S-1W12S	27	76
275	OE9S	15	63

<u>F.S. #</u>	<u>Grid Square Location</u>	<u>Max. Width (cm.)</u>	<u>Depth (cm.)</u>
279	2W11S	21	81
280	2W11S	24	72
289	3W10S-2W10S	28	68
291	3W10S	24	52
340	4W10S	13	74

APPENDIX IV

CHI SQUARE ANALYSIS OF RIM SHERD ATTRIBUTES

Crosstabulation	² X	Degrees of Freedom	Significance (p)
Position E-W & Position N-S	218.2	6	.0000
Position E-W & Depth	109.4	12	.0000
Position E-W & Surface Treatment	56.5	27	.0007
Position E-W & Profile	8.1	6	.2246
Position E-W & Rim Form	28.5	9	.0007
Position E-W & Thickness	30.3	24	.1741
Position E-W & Temper	21.1	6	.0017
Position N-S & Depth	43.6	8	.0000
Position N-S & Surface Treatment	15.9	18	.5935
Position N-S & Profile	5.1	4	.2694
Position N-S & Rim Form	9.8	6	.1332
Position N-S & Thickness	11.8	16	.7510
Position N-S & Temper	2.2	4	.6824
Depth & Surface Treatment	51.7	36	.0430
Depth & Profile	5.7	8	.6768
Depth & Rim Form	27.0	12	.0075
Depth & Thickness	41.6	32	.1185
Depth & Temper	4.1	8	.8452

CHI SQUARE ANALYSIS OF RIM SHERD ATTRIBUTES (continued)

Crosstabulation	χ^2	Degrees of Freedom	Significance (p)
Surface Treatment & Profile	82.4	18	.0000
Surface Treatment & Rim Form	381.7	27	.0000
Surface Treatment & Thickness	328.8	72	.0000
Surface Treatment & Temper	16.5	18	.5569
Profile & Rim Form	50.3	6	.0000
Profile & Thickness	32.6	16	.0082
Profile & Temper	1.3	4	.8462
Rim Form & Thickness	32.6	24	.1126
Rim Form & Temper	26.7	6	.0001
Thickness & Temper	34.5	16	.0045

LEVEL FORM EXAMPLE

Western Carolina University

Level Form

Square: _____ Depth: _____ Site _____ Photo No. _____

Soil Description : _____

Midden: _____

Artifacts: _____

North Profile: _____

East Profile: _____

South Profile: _____

West Profile: _____

Remarks: _____

Excavator: _____ Date: _____

APPENDIX VI

FIELD SPECIMEN RECORD

Macon County Industrial Park Area III, 1976 Excavations

F.S. #	Item	Depth	Location	Associations
Field Specimen Numbers 1 - 84 were assigned during the 1975 season.				
85	Sherds, stone	Surface	General Surface	- - -
86	same	Surface	General Surface	- - -
87	same	Surface	Low area adjacent to Potts' Branch	
88	same	Surface	General Surface	- - -
89	same	Surface	Southwest section between Potts' Branch and road	
90	same	Surface	1E6S	Plow zone
91	same	Surface	1E8S	Plow zone
92	same	Surface	1E10S	Plow zone
93	same	Surface	1E12S	Plow zone
94	same	Surface	0E10S	Plow zone
95	same	Surface	0E12S	Plow zone
96	same	0 - 10 cm.	1E6S	Plow zone
97	same	0 - 10 cm.	1E8S	Plow zone
98	same	0 - 10 cm.	1E10S	Plow zone
99	same	0 - 10 cm.	1E12S	Plow zone
100	same	0 - 10 cm.	0E10S	Plow zone
101	same	0 - 10 cm.	0E12S	Plow zone
102	same	10 - 20 cm.	1E10S	Plow zone
103	same	10 - 20 cm.	1E12S	Plow zone
104	same	10 - 20 cm.	0E10S	Plow zone

FIELD SPECIMEN RECORD (continued)

Macon County Industrial Park Area III, 1976 Excavations

F.S. #	Item	Depth	Location	Associations
105	Sherds, stone	10 - 20 cm.	1E8S	Plow zone
106	same	10 - 20 cm.	1E6S	Plow zone
107	same	10 - 20 cm.	0E12S	Plow zone
108	same	20 - 30 cm.	1E12S	Plow zone
109	same	20 - 30 cm.	1E10S	Plow zone
110	same	Surface	1E11S	Plow zone
111	same	0 - 10 cm.	1E12S	Plow zone
112	same	10 - 20 cm.	1E11S	Plow zone
113	same	Surface	0E6S	Plow zone
114	same	Surface	1E9S	Plow zone
115	same	0 - 10 cm.	0E6S	Plow zone
116	same	Surface	1E7S	Plow zone
117	same	0 - 10 cm.	1E7S	Plow zone
118	same	0 - 10 cm.	1E9S	Plow zone
119	same	20 - 30 cm.	0E12S	Plow zone & subsoil
120	same	20 - 30 cm.	1E6S	Plow zone & living surface
121	same	20 - 30 cm.	1E8S	Plow zone & living surface
122	same	10 - 20 cm.	1E9S	Plow zone
123	same	30 - 40 cm.	0E12S	Subsoil
124	same	10 - 20 cm.	1E7S	Plow zone
125	same	30 - 40 cm.	0E10S	Subsoil

FIELD SPECIMEN RECORD (continued)

Macon County Industrial Park Area III, 1976 Excavations				
F.S.#	Item	Depth	Location	Associations
126	Sherds, stone	20 - 30 cm.	1E12S	Plow zone (same as 108)
127	same	20 - 30 cm.	1E11S	Plow zone & subsoil
128	same	10 - 20 cm.	0E6S	Plow zone
129	same	20 - 30 cm.	1E9S	Subsoil
130	same	Surface	0E11S	Plow zone
131	same	0 - 10 cm.	0E11S	Plow zone
132	same	10 - 20 cm.	0E11S	Plow zone
133	same	20 - 30 cm.	1E7S	Plow zone & subsoil
134	same	Surface	1W10S	Plow zone
135	same	0 - 10 cm.	1W10S	Plow zone
136	same	Surface	0E8S	Surface
137	same	0 - 10 cm.	0E8S	Plow zone
138	same	10 - 20 cm.	1W10S	Plow zone
139	same	20 - 30 cm.	0E6S	Plow zone & subsoil
140	same	20 - 30 cm.	0E11S	Plow zone & subsoil
141	same	Surface	2E10S	Plow zone
142	same	0 - 10 cm.	2E10S	Plow zone
143	same	20 - 30 cm.	1W10S	Plow zone
144	same	10 - 20 cm.	0E8S	Plow zone
145	same	10 - 20 cm.	2E10S	Plow zone

FIELD SPECIMEN RECORD (continued)

Macon County Industrial Park Area III, 1976 Excavations

F.S. #	Item	Depth	Location	Associations
146	Sherds, stone	30 - 40 cm.	0E11S	Subsoil
147	same	20 - 30 cm.	0E8S	Flow zone
148	same	30 - 40 cm.	1W10S	Subsoil
149	same	20 - 30 cm.	2E10S	Flow zone
150	same	20 - 30 cm.	0E10S	Flow zone
151	same	30 - 40 cm.	1E7S	Subsoil
152	same	Surface	0E9S	Flow zone
153	same	0 - 10 cm.	0E9S	Flow zone
154	same	Surface	1W11S	Flow zone
155	same	0 - 10 cm.	1W11S	Flow zone
156	same	10 - 20 cm.	0E9S	Flow zone
157	same	10 - 20 cm.	1W11S	Flow zone
158	same	30 - 40 cm.	2E10S	Subsoil
159	same	30 - 40 cm.	0E8S	Subsoil
160	same	20 - 30 cm.	0E10S	Flow zone
161	same	Surface	25W13S	Flow zone
162	same	20 - 30 cm.	0E9S	Subsoil
163	same	20 - 30 cm.	1W11S	Flow zone
164	same	Surface	25W9S	Flow zone
165	same	0 - 10 cm.	25W9S	Flow zone

FIELD SPECIMEN RECORD (continued)

Macon County Industrial Park Area III, 1976 Excavations

F.S. #	Item	Depth	Location	Associations
166	Sherds, stone	30 - 40 cm.	0E9S	Subsoil
167	same	10 - 20 cm.	25W9S	Plow zone
168	same	Surface	25W11S	Plow zone
169	same	0 - 10 cm.	25W11S	Plow zone
170	same	0 - 10 cm.	25W13S	Plow zone
171	same	Surface	0E7S	Plow zone
172	same	0 - 10cm.	0E7S	Plow zone
173	same	10 - 20 cm.	25W11S	Plow zone
174	same	30 - 40 cm.	1W11S	Cist
175	same	10 - 20 cm.	0E7S	Plow zone
176	same	30 - 40 cm.	1W11S	Subsoil
177	same	Surface	1W12S	Plow zone
178	same	0 - 10 cm.	1W12S	Plow zone
179	same	20 - 30 cm.	25W11S	1975 backfill & subsoil
180	same	10 - 20 cm.	25W13S	Plow zone
181	same	20 - 30 cm.	25W9S	Plow zone & subsoil
182	same	20 - 30 cm.	0E7S	Plow zone & subsoil
183	same	Surface	25W15S	Plow zone
184	same	0 - 10 cm.	25W15S	Plow zone
185	same	below 30 cm.	1W11S	Postmold

FIELD SPECIMEN RECORD (continued)

Macon County Industrial Park Area III, 1976 Excavations

F.S. #	Item	Depth	Location	Associations
186	Sherds, stone	below 30 cm.	1W11S	Postmold
187	same	30 - 40 cm.	0E7S	Subsoil
188	same	10 - 20 cm.	1W12S	Plow zone
189	same	below 30 cm.	1W11S	Postmold
190	same	below 30 cm.	0E11S	Postmold
191	same	below 30 cm.	0E7S	Postmold
192	same	10 - 20 cm.	25W15S	Plow zone & subsoil
193	same	Surface	25W8S	Plow zone
194	same	0 - 10 cm.	25W8S	Plow zone
195	same	below 30 cm.	0E6S	Postmold
196	same	below 30 cm.	0E11S	Postmold
197	same	below 30 cm.	0E6S	Postmold
198	same	below 30 cm.	0E11S	Postmold
199	same	20 - 30 cm.	25W15S	Subsoil
200	same	20 - 30 cm.	1W12S	Plow zone
201	same	10 - 20 cm.	25W8S	Plow zone
202	same	below 30 cm.	0E12S	Postmold
203	same	below 30 cm.	0E6S	Postmold
204	same	20 - 30 cm.	25W13S	Plow zone
205	same	below 30 cm.	0E6S	Postmold

FIELD SPECIMEN RECORD (continued)

Macon County Industrial Park Area III, 1976 Excavations

F.S. #	Item	Depth	Location	Associations
206	Sherds, stone	below 30 cm.	1E12S	Postmold
207	same	below 30 cm.	0E6S	Postmold
208	same	30 - 40 cm.	1W12S	Subsoil
209	same	20 - 30 cm.	25W8S	Subsoil
210	same	below 40 cm.	0E8S	Postmold
211	same	below 30 cm.	1E12S	Postmold
212	same	Surface	25W14S	Plow zone
213	same	0 - 10 cm.	25W14S	Plow zone
214	same	below 30 cm.	1E12S, 0E12S	Postmold
215	same	below 30 cm.	1E6S, 2E6S	Postmold
216	same	Surface	25W10S	Plow zone
217	same	below 30 cm.	1E12S	Postmold
218	same	0 - 10 cm.	25W10S	Plow zone
219	same	0 - 10 cm.	25W14S	Plow zone
220	same	below 30 cm.	1E11S	Postmold
221	same	below 30 cm.	1E7S	Postmold
222	same	below 30 cm.	1E11S	Postmold
223	same	below 30 cm.	1E11S	Postmold
224	same	below 30 cm.	25W8S	Postmold
225	same	Surface	24W8S	Plow zone

FIELD SPECIMEN RECORD (continued)

Macon County Industrial Park Area III, 1976 Excavations				
F.S. #	Item	Depth	Location	Associations
226	Sherds, stone	0 - 10 cm.	24W8S	Plow zone
227	same	below 30 cm.	0E10S	Postmold
228	same	below 30 cm.	1W10S	Postmold
229	same	below 30 cm.	0E10S	Postmold
230	same	10 - 20 cm.	25W10S	Plow zone
231	same	below 30 cm.	1W10S	Postmold
232	same	0 - 30 cm.	0E7S	Grid stake
233	same	0 - 30 cm.	0E8S	Grid stake
234	same	20 - 30 cm.	25W14S	1975 backfill & subsoil
235	same	Surface	24W9S	Plow zone
236	same	0 - 10 cm.	24W9S	Plow zone
237	same	10 - 20 cm.	24W8S	Plow zone
238	same	below 30 cm.	2E10S	Postmold
239	same	below 30 cm.	0E10S	Postmold
240	same	below 30 cm.	2E10S	Postmold
241	same	below 30 cm.	1E8S	cook pit
242	same	Surface	2W12S	Plow zone
243	same	0 - 10 cm.	2W12S	Plow zone
244	same	0 - 10 cm.	2W10S	Plow zone
245	same	20 - 30 cm.	24W8S	Plow zone
246	same	10 - 20 cm.	2W12S	Plow zone

FIELD SPECIMEN RECORD (continued)

Macon County Industrial Park, Area III, 1976 Excavations

F.S. #	Item	Depth	Location	Associations
247	Sherds, stone	Surface	24W10S	Plow zone
248	same	10 - 20 cm.	2W10S	Plow zone
249	same	10 - 20 cm.	24W9S	Plow zone
250	same	0 - 10 cm.	24W10S	Plow zone
251	same		1E8S	Postmold
252	same	20 - 30 cm.	24W9S	Plow zone & subsoil
253	same	20 - 30 cm.	2W10S	Plow zone
254	same	20 - 30 cm.	2W12S	Plow zone
255	Burial 1	20 - 40 cm.	24-25W,8-9S	Burned clay
256	Sherds, stone	30 - 40 cm.	2W10S	Plow zone & subsoil
257	same	Surface	2W11S	Surface
258	same	0 - 10 cm.	2W11S	Plow zone
259	same	10 - 20 cm.	24W10S	Plow zone
260	same	below 20 cm.	1E8S	Post mold
261	same	10 - 20 cm.	2W11S	Plow zone
262	same	20 - 30 cm.	24W10S	Plow zone, subsoil, & 1975 backfill
263	same	30 - 40 cm.	2W12S	Subsoil
264	same	below 20 cm.	1E8S	Postmold
265	same	below 30 cm.	1E6S	Postmold

FIELD SPECIMEN RECORD (continued)

Macon County Industrial Park Area III, 1976 Excavations

F.S. #	Item	Depth	Location	Associations
266	Sherds, stone	below 30 cm.	1E6S	Post mold
267 - 270	unused Field Specimen numbers			
271	Sherds, stone	below 30 cm.	1E8S	Post mold
272	same	20 - 30 cm.	2W11S	Plow zone
273	same	below 30 cm.	2W12S	Post mold
274	Burial 2A	below 20 cm.	24-25W, 9-10S	Large rocks
275	Sherds, stone	below 30 cm.	1W9S	Grid stake Postmold
276	same	30 - 40 cm.	1E9S	Subsoil
277	same	30 - 44 cm.	2W11S	Topsoil
278	same	40 - 50 cm.	0E9S	Subsoil
279	same	below 40 cm.	2W11S	Postmold
280	same	below 40 cm.	2W11S	Postmold
281	same	0 - 10 cm.	3W10S	Plow zone
282	same	40 - 50 cm.	0W8S	Subsoil
283	same	10 - 20 cm.	3W10S	Plow zone
284	same	below 50 cm.	0-1E, 8-9S	Cooking pit
285	same	20 - 30 cm.	3W10S	Plow zone

FIELD SPECIMEN RECORD (continued)

F.S. #	Item	Depth	Location	Associations
286	Sherds, stone	30 - 33 cm.	3W10S	Topsoil & midden
287	same	33 - 40 cm.	3W10S	Topsoil & subsoil
288	Burial 2B	below 20 cm.	24-25W, 9-10S	Large rocks
289	Sherds, stone	below 40 cm.	2W10S, 3W10S	Postmold
290	same	below 70 cm.	0-1E, 8-9S	Lower hearth
291	same	below 40 cm.	3W10S	Postmold
292	same	Surface	5W10S	Plow zone
293	same	0 - 10 cm.	5W10S	Plow zone
294	same	Surface	7W10S	Plow zone
295	same	0 - 10 cm.	7W10S	Plow zone
296	same	Surface	9W10S	Surface
297	same	0 - 10 cm.	9W10S	Plow zone
298	same	10 - 20 cm.	5W10S	Plow zone
299	same	10 - 20 cm.	7W10S	Plow zone
300	same	20 - 30 cm.	5W10S	Plow zone
301	Burial 2C	below 20 cm.	24-25W, 9-10S	Large rocks
302	Burial 2D	below 20 cm.	24-25W, 9-10S	Large rocks
303	Sherds, stone	20 - 30 cm.	7W10S	Subsoil
304	same	10 - 20 cm.	9W10S	Plow zone
305	same	below 30 cm.	5W10S	Plow zone & subsoil

FIELD SPECIMEN RECORD (continued)

F.S. #	Item	Depth	Location	Associations
306	Sherds, stone	Surface	4W10S	Plow zone
307	same	0 - 10 cm.	4W10S	Plow zone
308	same	Surface	11W10S	Plow zone
309	same	Surface	13W10S	Plow zone
310	same	0 - 10 cm.	13W10S	Plow zone
311	same	0 - 10 cm.	11W10S	Plow zone
312	same	20 - 30 cm.	9W10S	Plow zone
313	same	Surface	15W10S	Plow zone
314	same	10 - 20 cm.	4W10S	Plow zone
315	same	0 - 10 cm.	15W10S	Plow zone
316	same	10 - 20 cm.	13W10S	Plow zone
317	Fill from Burial 2/0 - 60 cm. 24-25W,9-10S			4 skeletons
318	Sherds, stone	20 - 30 cm.	4W10S	Plow zone
319	same	20 - 30 cm.	13W10S	Subsoil
320	same	10 - 20 cm.	15W10S	Plow zone
321	same	10 - 20 cm.	11W10S	Plow zone
322	same	Surface	17W10S	Plow zone
323	same	0 - 10 cm.	17W10S	Plow zone
324	same	30 - 40 cm.	4W10S	Subsoil
325	same	Surface	19W10S	Plow zone

FIELD SPECIMEN RECORD (continued)

F.S. #	Item	Depth	Location	Associations
326	Sherds, stone	0 - 10 cm.	19W10S	Plow zone
327	same	20 - 30 cm.	15W10S	Subsoil
328	same	20 - 30 cm.	11W10S	Plow zone
329	same	10 - 20 cm.	19W10S	Plow zone
330	same	10 - 20 cm.	17W10S	Plow zone
331	same	Surface	21W10S	Plow zone
332	same	0 - 10 cm.	21W10S	Plow zone
333	same	Surface	23W10S	Plow zone
334	same	0 - 10 cm.	23W10S	Plow zone
335	same	10 - 20 cm.	21W10S	Plow zone
336	same	20 - 30 cm.	19W10S	Plow zone & subsoil
337	same	20 - 30 cm.	21W10S	Subsoil
338	same	10 - 20 cm.	23W10S	Plow zone
339	same	20 - 30 cm.	17W10S	Subsoil
340	same	below 30 cm.	4W10S	Postmold
341	same	Surface	3W11S	Plow zone
342	same	0 - 10 cm.	3W11S	Plow zone
343	same	Surface	3W12S	Plow zone
344	same	0 - 10 cm.	3W12S	Plow zone
345	same	Surface	2E9S	Plow zone

FIELD SPECIMEN RECORD (continued)

F.S. #	Item	Depth	Location	Associations
346	Sherds, stone	0 - 10 cm.	2E9S	Plow zone
347	same	30 - 40 cm.	17W10S	Subsoil
348	same	10 - 20 cm.	3W11S	Plow zone
349	same	10 - 20 cm.	3W12S	Plow zone
350	same	Surface	2E7S	Plow zone
351	same	0 - 10 cm.	2E7S	Plow zone
352	same	20 - 30 cm.	3W11S	Plow zone
353	same	20 - 30 cm.	3W12S	Topsoil
354	same	10 - 20 cm.	2E9S, west $\frac{1}{2}$	Plow zone
355	same	30 - 40 cm.	3W12S	Topsoil
356	same	30 - 40 cm.	3W11S	Topsoil
357	same	10 - 20 cm.	2E7S, west $\frac{1}{2}$	Plow zone
358	same	below 40 cm.	3W12S	Topsoil
359	same	below 20 cm.	2E9S	Subsoil
360	same	below 20 cm.	25W, 7-8S	Interval between Burials 1 & 2, burned clay

APPENDIX VII

Stone Artifact Inventory

compiled by Kenneth Hollingsworth

Lithic Materials

The following lithic materials could have been procured from various physical settings at least within a few miles of the M.C.I.P. site:

Quartz
Quartzite
Sandstone
Gneiss
Conglomerate
Granite
Schist
Feldspar
Ochres.

Most of these could be obtained from stream channels, hillsides, and outcrops. The use of quartz at M.C.I.P. is of particular interest, and especially in the microlithic industry. Lewis and Kneberg (1958:177,182) have noted the ritual use of quartz crystals. Mooney (1900) documented crystal usage in several of the Cherokees' annual ceremonies. Additionally, the summer field school conducted by Dorwin in 1972 at an early historic Cherokee structure (NC Ja 15) on the site of the proposed stadium of W.C.U. uncovered a rather large quartz crystal within the confines of the structure. There is nothing to indicate that crystals were prized ceremonial objects at M.C.I.P.. Indeed, quartz crystals were an important part of the microlithic tool assemblage. Many of the chips, burins, prismatic blades, etc., which were made of quartz retained a portion of the original crystalline facet. Apparently, quartz

crystals could be obtained within close proximity (within several hundred meters).

Other lithic items which could be obtained locally, but in fairly restricted and specific locations, are:

Slate,

Steatite,

Mica,

Phyllite,

Graphite.

Of the above, the slate is of a particular type. It contains small pyrite crystals; these can easily be seen with a 10X hand lens. This type of slate is found in a geologic feature in the higher elevations of the Great Smoky Mountains, generally in an area extending from Newfound Gap to the northeast and southwest. The same is true for phyllite; it is associated with the higher elevations. A few phyllite specimens were retrieved, one of which is a gorget.

Graphite, apparently used as a pigment, is another component of the highland formation. Thus, at least a part of the procurement system was to the north and northwest.

Steatite and mica are found at numerous locations within the Southern Appalachians. Steatite is particularly abundant around the Jackson County area, being associated with the geologic features known as the Webster Ring Dike. It is also abundant around Murphy, N.C., where it is found in exceptionally pure quality. Mica is found in numerous locations within western North Carolina (Stuckey 1965).

Chert is not present within the site vicinity, nor within the Southern Appalachian Highlands. However, chert appears to have played an important role in late prehistoric times.

Chert is a type of chalcedony (any type of crypto-crystalline rock

having a waxy luster, conchoidal fracture, and composed largely of silicates).

Chert is said to be a limestone residual or precipitate. There is no limestone within the Southern Appalachian Highlands. The closest source of chert would have been the "Ridge and Valley" Province of eastern Tennessee, although it may also be found in many areas of the eastern United States. Chert, jasper, and flint are all types of chalcedony, but the distinction is not always apparent, particularly in archaeological literature. The importance of chert in the microlithic industry and projectile point manufacture is apparent from the following tables. As a general rule, chert appears to be predominant in the uppermost levels.

Quartz seems to be ubiquitously distributed throughout the excavation levels. Quartzite, on the other hand, is clearly associated with the lower levels. The majority of points earlier than Middle Woodland are quartzite. As a general rule of thumb, a single criterion was used in distinguishing quartz from quartzite; if individual particles were visible to the eye, stone was considered quartzite; if not, it was quartz.

MCIP: Totals for all retrieved stone

Frequencies of lithic specimens by level

	General Surface		Grid Square Surface		0-10 cm.		10-20 cm.		20-30 cm.		30-40 cm.		40-50 cm.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Chert	31	31.3	10	13.5	405	33.2	377	34.3	195	28.7	55	21.2	1	1.8
Quartz	21	21.2	19	25.7	303	24.8	283	25.7	170	25.0	54	20.8	2	3.6
	(4)*		(2)		(18)		(14)		(10)		(4)			
Quartzite	26	26.3	35	47.3	402	33.0	345	31.4	265	39.0	125	48.1	51	92.7
Sandstone	7	7.1	1	1.4	10	0.8	7	0.6	11	1.6	5	1.9	1	1.8
Slate	7	7.1	5	6.8	69	5.7	53	4.8	20	2.9	13	5.0	0	
Steatite	2	2.0	0		1	0.1	4	0.4	3	0.4	1	0.4	0	
Gneiss	0		2	2.7	1	0.1	6	0.5	1	0.1	0		0	
Conglomerate	1	1.0	0		1	0.1	0		0		0		0	
Granite	1	1.0	0		2	0.2	2	0.2	0		0		0	
Schist	1	1.0	2	2.7	16	1.3	13	1.2	9	1.3	3	1.2	0	
Mica	0		0		3	0.2	3	0.3	1	0.1	0		0	
Phyllite	0		0		0		3	0.3	0		2	0.8	0	
Feldspar	0		0		1	0.1	1	0.1	0		1	0.4	0	
Graphite	0		0		2	0.2	0	0	0		1	0.4	0	
Hematite	0		0		1	0.1	0		0		0		0	
Red Ocher	0		0		0		2	0.2	0		0		0	
Unidentified														
Stone	2	2.0	0		3	0.2	1	0.1	4	0.6	0		0	

* Number in parentheses indicates quantity of quartz crystal (both complete and fragmentary) upon which the original crystalline surface (facet) was observed.

PROJECTILE POINTS*

Frequencies of stone by level

	<u>General Surface</u>		<u>Grid Square Surface</u>		<u>0 - 10 cm.</u>		<u>10 - 20 cm.</u>		<u>20 - 30 cm.</u>		<u>30 - 40 cm.</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Chert	12	26.7	1	50	27	65.9	17	53.1	13	59.1	5	50
Quartz	13	28.9	0		8	19.5	6	18.8	4	18.2	3	30
Quartzite	19	42.2	1	50	6	14.6	8	25	4	18.2	2	20
Slate	0		0		0		1	3.1	1	4.5	0	
Conglomerate	1	2.2	0		0		0		0		0	
Totals	45		2		41		32		22		10	

*Includes both complete and fragmentary specimens.

Projectile points recovered from burials were not included in the table. A total of four projectile points were found associated with burials. For purposes of reference, these items are included in Field Specimen numbers 274 (2 points) and 288 (2 points). Of these four, the stone types are as follows: Chert, 2; Quartz, 1; and Quartzite, 1.

PROJECTILE POINTS

Frequencies of Period-Types by Depth

	Late Woodland-Mississippian		Middle Woodland		Early Woodland		Late Archaic		Middle Archaic		Early Archaic		Paleo-Indian		Unclassified/Undefined		Totals by Level
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
General Surface	6	13.3	5	11.1	7	15.5	5	11.1	4	8.8	3	6.7	0		15	33.3	45
Grid Square Surface	1	50.0	0		1	50.0	0		0		0		0		0		2
0-10 cm.	21	51.2	1	2.4	2	4.8	0		3	7.3	0		0		14	34.1	41
10-20 cm.	10	31.2	5	15.6	4	12.5	0		1	3.1	0		1(?)	3.1	11	34.4	32
20-30 cm.	6	27.3	2	9.1	3	13.6	0		1	4.5	0		0		10	45.4	22
30-40 cm.	2	20.0	2	20.0	1	10.0	1	10.0	2	20.0	0		0		2	20.0	10
Associated with burials	0		1	25.0	3	75.0	0		0		0		0		0		4
<u>Totals by Period</u>	46	29.5	16	10.3	21	13.5	6	3.8	11	7.1	3	1.9	1(?)	0.6	52	33.3	156

Calculated for the 156 specimens (fragmentary and complete) recovered from the main excavation area. Keel (1972), Coe (1964), and Wauchope (1966) were consulted for specimen identification and assignment to relative chronological position.

CHRONOLOGICAL DISTRIBUTION OF PROJECTILE POINTS
BY EXCAVATION LEVEL

	Mississippian/ Late Woodland	Middle Woodland	Early Woodland	Late Archaic	Middle Archaic	Early Archaic	Paleo- Indian	Unclassified/ Undefined
Level I (0-10 cm.)	■				■			■
Level II (10-20 cm.)	■	■	■					■
Level III (20-30 cm.)	■	■	■		■			■
Level IV (30-40 cm.)	■	■	■	■	■			■

■ = 10%

<u>Major Period/ Tradition</u>	<u>Phase</u>	<u>Point Type</u>	<u>General Outline</u>	<u>Predominant Material</u>
Mississippian	Qualla	Madison		Chert
	Pisgah	Pisgah Triangular		Chert
Late Woodland	Connestee	Haywood Triangular		Chert
		Garden Creek Triangular		Chert, quartz
Middle Woodland	Connestee	South Appalachian Pentagonal		Chert, quartz
		Connestee Triangular		Chert, quartz
Early Woodland	Pigeon	Pigeon Side Notched		Chert, quartz
		Bradley Spike		Chert
		Coosa Notched		Chert, quartz
	Swannanoa	Transylvania Triangular		Quartz
		Swannanoa Stemmed		Quartz
Late Archaic		Plott Short Stemmed		Quartz
		Otarre Stemmed		Quartz, quartzite
		Savannah River Stemmed (Appalachian Stemmed)		Quartzite
		Guilford Lanceolate		Quartzite
Middle Archaic		Stanly Stemmed		
Early Archaic		Kirk Corner Notched, Kirk Stemmed		Chert, quartz
		Palmer Corner Notched		Chert, quartz
		Clovis		Quartz

Based on the stratigraphically derived projectile point sequences formulated by Coe (1964) and Keel (1972).

MCIP: Chipped Stone Artifacts*

Frequencies of Chipped Stone Classes and Stone Type by Depth

	General Surface		Grid Square Surface		0-10 cm.		10-20 cm.		20-30 cm.		30-40 cm.		40-50 cm.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Scrapers														
Chert	0		0		6	0.6	2	0.2	6	1.0	1	0.5	0	
Quartz					2	0.2	0		4	0.7	1	0.5	1	20.0
Quartzite	2	5.9	1	1.7	24	2.2	19	2.0	15	2.5	9	4.2	0	
Slate	0		0		2	0.2	0		0		0		0	
Unidentified stone	0		0		0		0		1	0.2	0		0	
Flake Scrapers														
Chert	0		0		15	1.4	20	2.1	10	1.7	5	2.3	0	
Quartz	0		0		10	0.9	9	0.9	2	0.3	3	1.4	0	
Quartzite	0		0		1	0.1	1	0.1	0		0		0	
Spoke shaves														
Chert	0		0		3	0.3	1	0.1	1	0.2	1	0.5	0	
Quartz	0		0		3	0.3	3	0.3	1	0.2	2	0.9	0	
Quartzite	0		0		0		0		0		0		0	
Micro lithic Tools														
Burin														
Chert	2	5.9	1	1.7	43	4.0	37	3.8	36	6.1	11	5.1	0	
Quartz	0		0		7	0.6	6	0.6	10	1.7	2	0.9	0	
Prismatic Blades														
Chert	2	5.9	0		55	5.1	47	4.9	33	5.6	4	1.9	1	20.0
Quartz	0		1	1.7	7	0.6	19	2.0	14	2.4	2	0.9	1	20.0
Quartzite	0		0		1	0.1	1	0.1	0		1	0.5	0	
Drill														
Chert	1	2.9	0		2	0.2	0		0		0		0	
Quartz	0		0		0		0		0		0		0	
Quartzite	0		0		0		1	0.1	0		0		0	

Preform								
Blank								
Chert	0	0	0	0	0	0	0	0
Quartz	0	0	1 0.1	0	0	0	0	0
Quartzite	0	0	4 0.4	5 0.5	1 0.2	2 0.9	0	0
Blade Cores								
Chert	1 2.9	0	0	2 0.2	0	0	0	0
Quartzite	0	1 1.7	4 0.4	0	1 0.2	0	0	0
Flaking Debris (unmodified chips)								
Chert	13 38.2	8 13.6	255 23.5	247 25.5	92 15.6	28 13.0	0	40.0
Quartz	4 11.8	18 30.5	261 24.0	236 24.4	131 22.2	42 19.5	0	
Quartzite	4 11.8	23 39.0	313 28.8	252 26.0	212 35.9	87 40.5	2	
Slate	5 14.7	5 8.5	66 6.1	52 5.4	18 3.1	12 5.6	0	
Feldspar	0	0	1 0.1	1 0.1	0	1 0.5	0	
Schist	0	0	0	5 0.5	1 0.2	0	0	
Sandstone	0	0	0	0	1 0.2	0	0	
Granite	0	0	1 0.1	0	0	0	0	0
Phyllite	0	0	1 0.1	0	0	1 0.5	0	0
Knife								
Chert	0	0	0	0 1 0.1	0	0	0	0

* With the exception of projectile points--see previous table.

DISTRIBUTION OF MICROLITHIC TOOLS

	<u>BURINS</u>		<u>PRISMATIC BLADES</u>		
	Chert	Quartz	Chert	Quartz	Quartzite
Level I (0-10 cm.)	■	■	■	■	■
Level II (10-20 cm.)	■	■	■	■	■
Level III (20-30 cm.)	■	■	■	■	■
Level IV (30-40 cm.)	■	■	■	■	■

■ = 10 %

Calculations based on the table "MCIP: Chipped Stone Artifacts" for the types of stone comprising the microlithic tools assemblage.

MCIP: Ground and Polished, Modified, and Unmodified Stone

	<u>General Surface</u>	<u>Grid Square Surface</u>	<u>0-10 cm.</u>	<u>10-20 cm.</u>	<u>20-30 cm.</u>	<u>30-40 cm.</u>	<u>40-50 cm.</u>
Ground and Polished Stone							
Axe	4	0	2	1	1	0	0
Hammerstone	0	0	0	3	0	0	0
Anvil	2	1	0	0	0	0	0
Mano	1	1	0	0	0	1	0
Metate	1	0	0	0	0	0	0
Abrading tool	3	2	14	10	11	2	1
Polishing tool	0	0	4	1	3	1	0
Gorget/Orna-ment	2	0	1	1	1	0	0
Discoidal	0	0	1	1	1	0	0
Steatite vessel	0	0	2	4	1	0	0
Steatite pipe	0	0	1	0	0	0	0
Unidentified stone	0	0	0	0	1	0	0
Other Modified Stone							
Chert	0	0	0	2	1	0	0
Quartz	0	0	0	0	0	0	0
Quartzite	0	5	48	48	9	19	0
Slate	4	0	0	0	0	1	0
Sandstone	0	1	0	1	0	2	0
Granite	0	0	1	0	0	0	0
Steatite	0	0	0	0	0	1	0
Unmodified Stone							
Chert	0	0	0	0	0	0	0
Quartz	4	0	4	2	2	0	0

Unmodified
Stone (cont'd)

Quartzite	0	3	5	7	23	3	49
Slate	0	0	0	0	0	0	0
Gneiss	0	0	1	6	0	0	0
Schist	0	2	0	2	4	1	0
Mica	0	0	3	3	1	0	0
Graphite	0	0	2	0	0	1	0
Sandstone	0	0	5	2	4	2	0
Conglomerate	0	0	1	2	0	0	0
Red Ocher	0	0	0	2	0	0	0
Steatite	0	0	0	0	1	0	0
Hematite	0	0	1	0	0	0	0
Granite	0	0	1	0	0	0	0

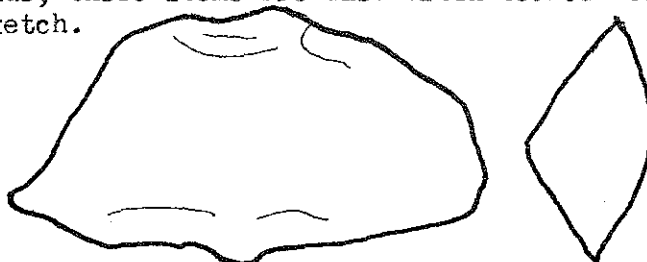
GLOSSARY OF TERMS USED IN LITHIC ANALYSIS

Burin - "... tool with a transverse (chisel) edge made by the removal of one or more flakes. Used for working bone, antler and ivory, and perhaps for engraving" (Bordes, 1968: 242). Also, note Jennings' definition of a graver: "A small trimming or cutting tool with a sharp point or edge used for wood-working" (my emphasis). Representative specimens from MCIP sketched below.



From left to right,
F.S. 137, 142, 155.
All are actual size,
made from chert.
F.S. 137 and 142
fashioned from
prismatic blades.

Preform Blank - "An unfinished stone tool partially worked to the shape and size of the intended implement. It is possible that blanks were stockpiled for later completion" (Jennings, 1968: 374). Thus, these items are also often termed "cache" blades. See sketch.



F.S. 244 (Actual size)
Material is quartzite.

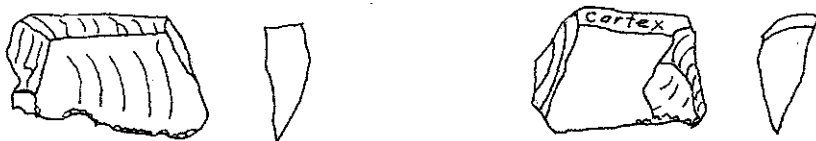
Prismatic Blades - Larger specimens also called "lamellar flakes" (White, 1963: 46). Blade - "A long narrow flake with parallel sides, sometimes called lamellar flakes. Blades are usually struck from a prepared core. Small specimens are called microblades" (Jennings, 1968: 374). Specifically, these tools usually have one flat side, with the other side having one or more longitudinal ridges. Generally, the blades retrieved from MCIP are relatively small (cf. Keel's description of blades from the Garden Creek Sites, pp. 183-191). Many of the complete specimens retained a portion of the striking platform, which often was the patinated surface of the chert nodule. Additionally, the majority of the specimens possess small, concoidal, continuous chips along one or both edges; this feature may be interpreted as: (1) continuous retouching, (2) wear patterns, and/or (3) intentional blunting (to protect the fingers) (White, 1963: 46-47). See sketch.



F.S. 101 (left)
F.S. 138 (right)
Both are actual size,
made from chert.

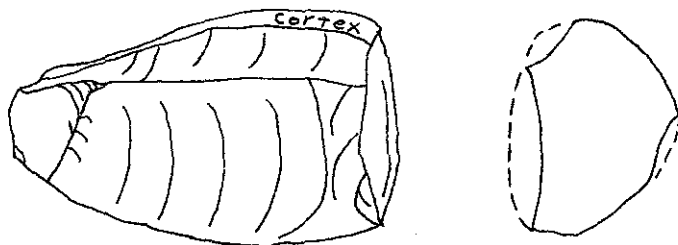
(2)

Flake Scrapers - For lack of a better term, a particular type of flake struck from a prepared core, having a very blunt or flat side opposite the cutting edge. Very similar to White's (1963: 14) "parallel-sided flakes". "Parallel-sided flakes are large, thick pieces with a scalene triangular cross section." The scalene triangles' smallest side is the back of the blade. The majority of these tools retain portion of the cortex. See sketch.



F.S. 155 (left)
F.S. 111 (right)
Both are actual size, made from chert.

Blade Cores - "A stone from which flakes have been removed to make implements. A prepared core is one which has been purposefully worked so that the shape of the flakes or blades can be controlled" (Jennings, 1968: 375). See sketch.



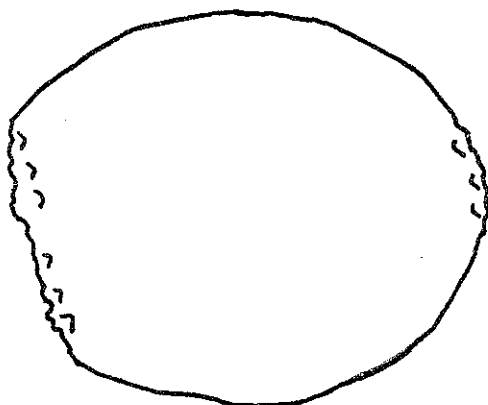
F.S. 330 (actual size)
Note removal of blades.
Specimen is a chert nodule.

Spokeshave - "A scraper with a rounded notch in the edge used for such chores as scraping arrow shafts" (Jennings, 1968: 379). See sketch.



F.S. 315, quartz (left)
F.S. 351, chert (right)
Both actual size.

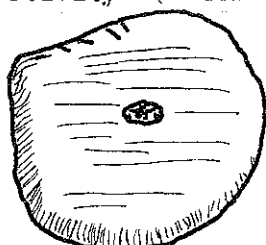
Hammerstone - "A rounded stone to be used as a hammer and which is sometimes grooved for hafting to a handle. Usually ungrooved, however, it has a variety of forms ranging from a crudely shaped sphere to a finely ground ovoid with a battered end" (Jennings, 1968: 376).



F.S. 157 (actual size)
Specimen is 18 mm. thick.
Both ends are battered.

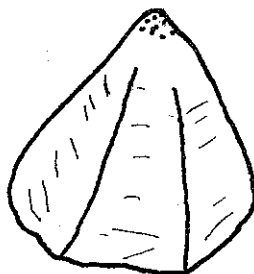
(3)

Anvil - "... stone cobbles and slabs that lack surface grinding but which exhibit one or more small pits or depressions pecked into a surface. Anvils may have functioned as platforms for some pounding or hammering activity" (Ahler and McMillan, 1976: 185).



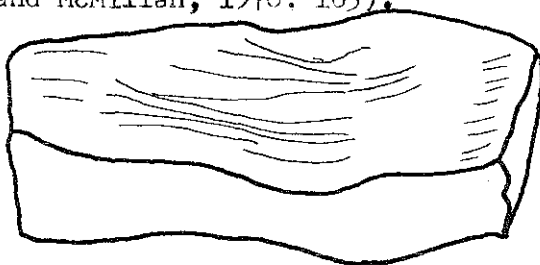
F.S. 85 - note depression in both sides. (Not actual size)
Specimen is 11.4 cm. wide, 4.7 cm. thick.

Manos - "The upper stone used on a metate to grind corn and other grains" (Jennings, 1964: 377). Also, "... cobbles with one or more ground and abraded convex surface are interpreted as hand-held grinding/crushing implements ..." (Ahler and McMillan, 1976: 185).



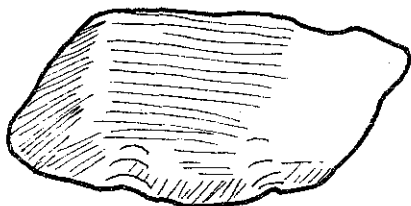
F.S. 85 (not actual size)
- four ground, faceted sides, with flat bottom. Actual size is 8 cm. high, 8.5 cm. wide.

Metate - "... includes large ... slabs that have large concave depressions ground and/or pecked into one or both flat faces" (Ahler and McMillan, 1976: 185).



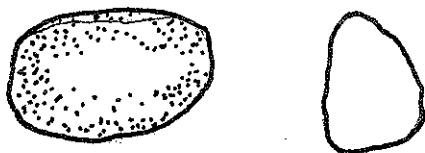
F.S. 85 - 3.7 cm. thick, approx. 16 cm. wide.

Abrading Tool (abrader) - "... small cobbles ... with shallow U-shaped grooves are interpreted as abraders used to grind or smooth bone or wood" (Ahler and McMillan, 1976: 189).



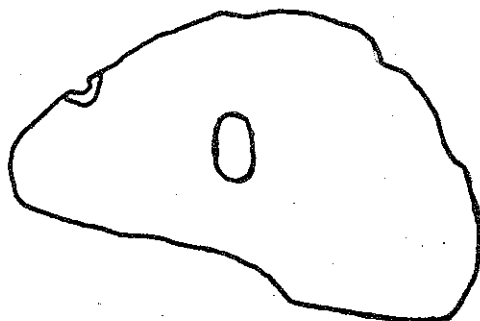
F.S. 145 - actual size.

Polishing Tools ("whetstones"?) - "Tabular slabs and small flat pieces of fine-grained sandstone with smoothing on one or more faces" (Ahler and McMillan, 1976: 189). May also be interpreted as "pottery polishing tools" (Keel, 1972: 73-74).



F.S. 147 (actual size)

Gorget - "An ornament which is usually worn over the chest and which is perforated for attaching to clothing or suspending on a cord" (Jennings, 1968: 376)



F.S. 107 (actual size)
Apparently reworked from former shape--note portion of former perforation on left end. Material is phyllite. Specimen is approx. 1 cm. thick.

APPENDIX VIII

CHI SQUARE ANALYSIS OF PROJECTILE POINT ATTRIBUTES

Crosstabulation	² X	Degrees of Freedom	Significance (p)
Position E-W & Position N-S	27.9	6	.0001
Position E-W & Length	18.3	12	.1048
Position E-W & Width	13.0	15	.6018
Position E-W & Thickness	12.0	9	.2083
Position E-W & Material	8.7	9	.4616
Position E-W & Depth	31.7	12	.0015
Position N-S & Length	13.6	8	.0918
Position N-S & Width	9.8	10	.4528
Position N-S & Thickness	3.1	6	.7906
Position N-S & Material	2.9	6	.8196
Position N-S & Depth	10.1	8	.2530
Length & Width	80.6	20	.0000
Length & Thickness	94.7	16	.0000
Length & Material	51.7	12	.0000
Length & Depth	20.6	16	.1929
Width & Thickness	112.6	20	.0000
Width & Material	61.5	15	.0000
Width & Depth	34.9	20	.0203
Thickness & Material	41.6	12	.0000
Thickness & Depth	30.3	16	.0161
Material & Depth	13.7	12	.3175

APPENDIX IX

NORTH CAROLINA ARCHAEOLOGICAL SURVEY

MASTER SITE FILE

Agency: Western Carolina Univ.
Site No.: Accession No. 49

Site Name: Macon County Industrial Park Site

Other Site Name: Fox Site

Type of Site: Burial and habitation (Woodland)

County: Macon

Instructions for Locating Site: Near confluence of Potts Branch
and Cartoogechaye Creek, west of the Little Tennessee River;
0.5 km. South of U.S. 64 and Carson Chapel.

Maps Used: U.S.G.S. Franklin Quadrangle

Owner of Site: Macon County

Address: County Courthouse, Franklin, N.C. 28734

Occupant: Tenant farmer, Joe Ramsey

Address: Franklin, N.C. 28734

Attitude of Owner: Willing to avoid site in future development.

Reporter: John T. Dorwin

Address: 405 S. Highland, Bloomington, Indiana 47401

Recorder: Susan M. Collins, Assistant Professor

Department of Sociology and Anthropology

Western Carolina University, Cullowhee, N.C. 28723

Type of Survey: Transect test trench (1975) + Salvage (1976)

Tested: 1975 trench = 1 meter x 32 meters

Inventory status: Not recommended for National Register

Survey Date: Nov. 1974; July, Aug. 1975; June, July, Aug. 1976

UTM: 278 km. E and 3893 km. N, Zone 17

Latitude and Longitude: 35 degrees 9 minutes N; 38 degrees 26 min. W

Description of Site:

95

Site Size: 1 hectare

Condition of Site: Altered by plowing

Plowing History: Plowed for at least 5 years

Landform: Alluvial terrace or bench

Elevation: 2, 120 feet; Estimated Deposit Depth: 2 meters

Drainage: Potts Branch - Cartoogechaye Creek

Soil Types/Associations: Red alluvial clay; Hayesville -

Rabun - Chester soil association

Vegetation: Currently, domesticated corn (*Zea mays*)

Water Source: Potts Branch, 150 meters east

Visible site features: No features are visible, but the site is covered with potsherds and lithic artifacts. A dark brown soil color on the site contrasts with the surrounding red clay soil.

Site Class: Habitation and cemetery

Cultural Classification:

Culture/Phase: Woodland Culture/ Pigeon and Pisgah Phases

Period/Stage: Middle Woodland and Mississippian

Probable Dates: Beginning A.D. 300; Ending A.D. 1500

Remarks: The cultural classification entries refer to excavated features. Surface indications suggest utilization in Archaic and possibly Paleo times.

Major Bibliographic References: John T. Dorwin, 1975, Archaeological Investigations at the Macon County Industrial Park. Report on file at Western Carolina University.

Site No.: W.C.U. Accession No. 49

Site Name: Macon County Industrial Park

Materials, Collections Inventory:

Material Collected during Excavation: Pottery, lithics,
humar bone, animal bone, charcoal, floral remains,
soil samples.

Location of Materials: W.C.U. Archaeology Research Lab, Cullowhee

Survey Record:

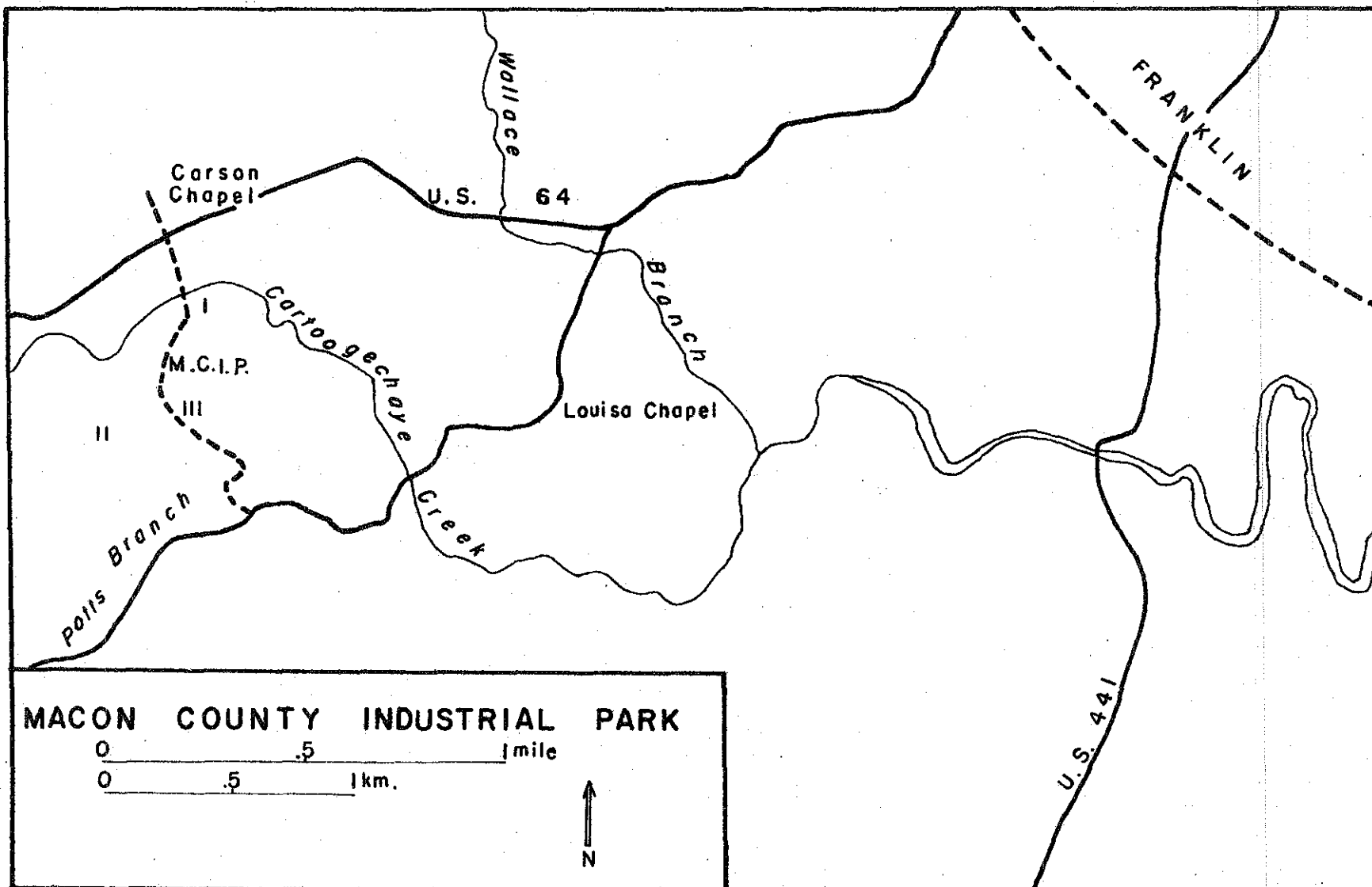
Supervisor: Dorwir Date: 1974 Report: W.C.U.

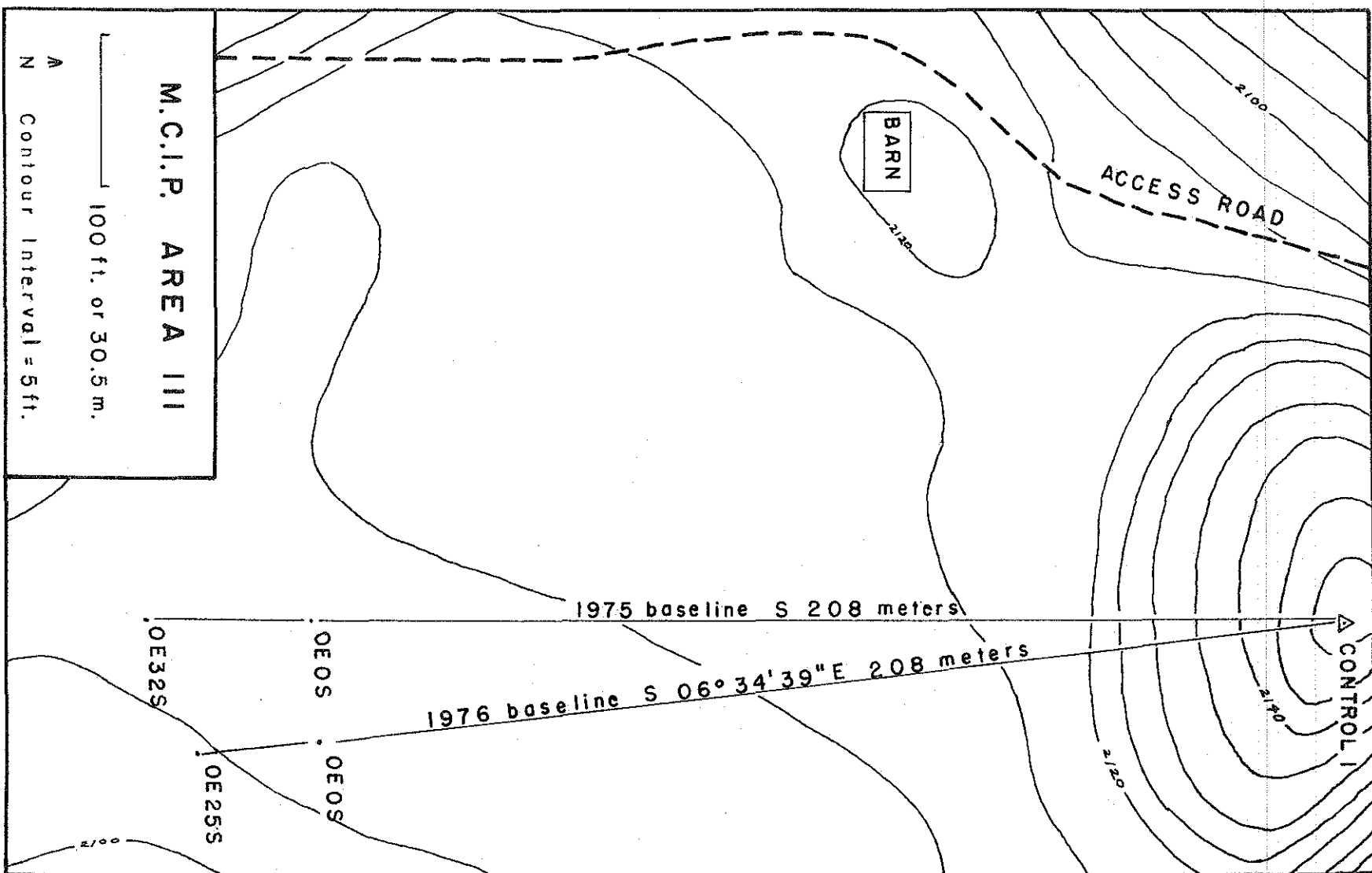
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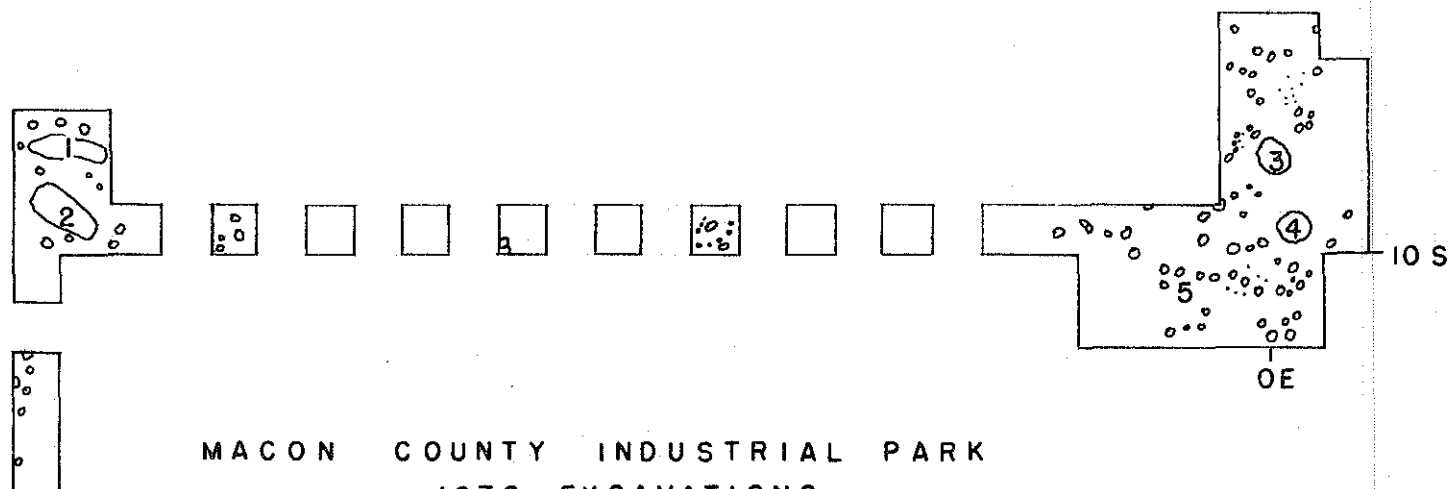
Supervisor: Dorwir Date: 1975 Report: W.C.U.

Supervisor: Collins Date: 1976 Report: W.C.U.

Degree Site Endagered: Will be avoided in future development.

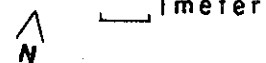






MACON COUNTY INDUSTRIAL PARK
1976 EXCAVATIONS

1. Burial 1 3 and 4. Hearths
2. Burials 2a,b,c,d 5. Cist



PHOTOGRAPHS



Macon County Industrial Park
Tri-X 1:8
L. Roten
f/16; 1/500
Looking South along OE line
28 July 1976



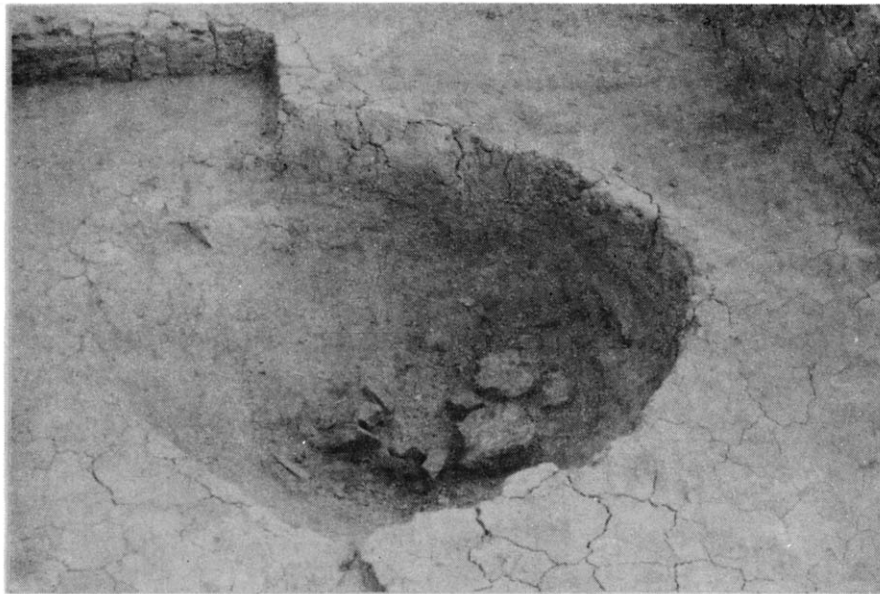
Macon County Industrial Park
Tri-X 1:9
K. Hollingsworth & V. Gotthilf
f/16; 1/500
Looking East toward screening area
28 July 1976



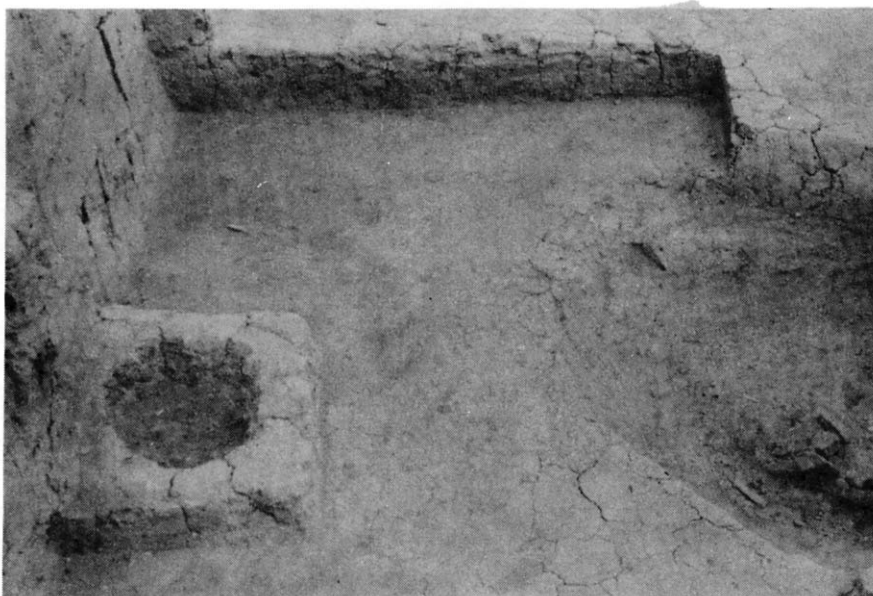
Macon County Industrial Park
 Tri-X 1:14
 Excavation in habitation area
 f/16; 1/500
 Looking South along OE line
 28 July 1976



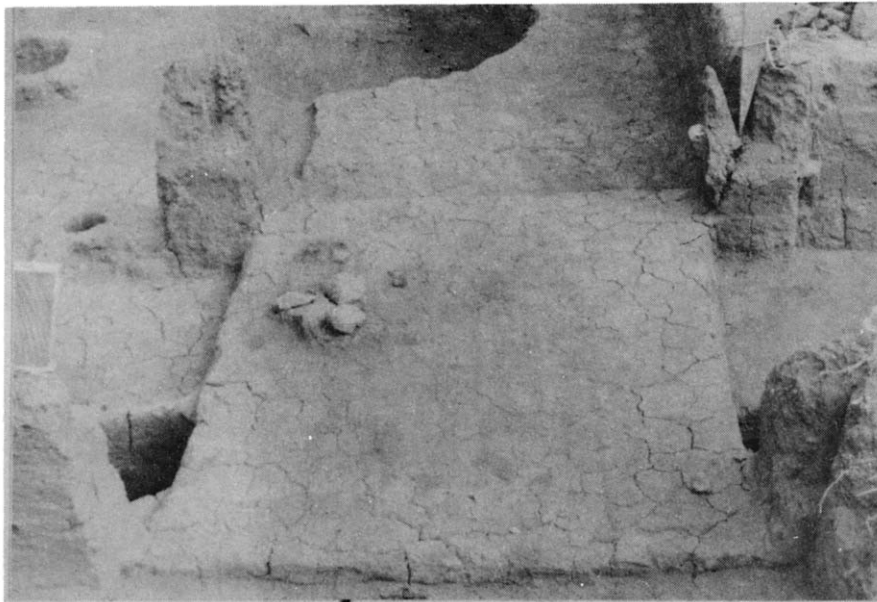
Macon County Industrial Park
 Tri-X 1:15
 Excavation in habitation area
 f/16; 1/500
 Looking North along OE line
 28 July 1976



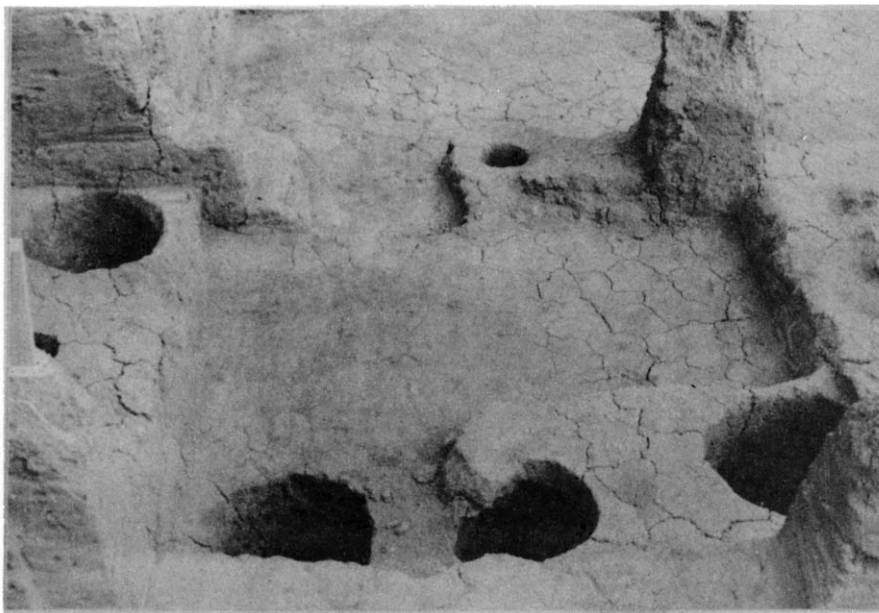
Macon County Industrial Park
 Tri-X 1:20
 1E8S, Hearth or Cooking Pit, Feature 3
 f/16; 1/500
 Looking North
 28 July 1976



Macon County Industrial Park
 Tri-X 1:21
 0E8S, Postmold and hearth
 f/16; 1/500
 Looking North
 28 July 1976



Macon County Industrial Park
 Tri-X 1:26
 1E10S, Hearth, Feature 4
 f/16; 1/500
 Looking North
 28 July 1976



Macon County Industrial Park
 Tri-X 1:27
 OE10S, alignment of postmolds
 f/16; 1/500
 Looking North
 28 July 1976