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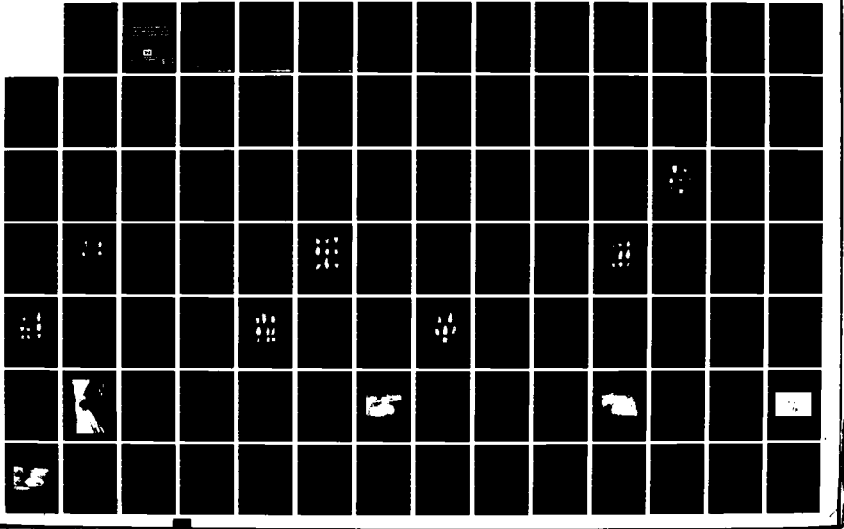

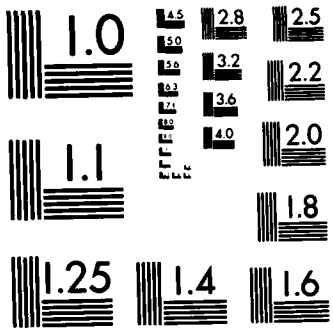

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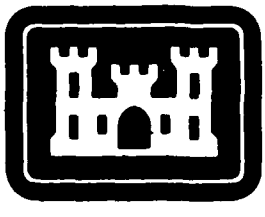
CUMBERLAND RIVER BASIN
CUMBERLAND RIVER, TENNESSEE

CORDELL HULL PROJECT

ARCHAEOLOGICAL RECONNAISSANCE SURVEY AND SALVAGE EXCAVATION IN THE SALT LICK RECREATION AREA



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An archaeological reconnaissance and survey of the Salt Lick Recreation Area, a U.S. Army Corps of Engineers project adjacent to the Cordell Hull Reservoir/Cumberland River in Jackson County, (north central) Tennessee, has documented nine prehistoric sites manifesting occupation from the Paleo-Indian to Mississippian periods. Of these sites, two (40JK3-A and 40JK33) yielded evidence of potentially significant Woodland period occupation in the form of fire pits, limestone tempered plain and cord marked ceramics, a circular house pattern, diagnostic projectile points,

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faunal and floral remains, and C-14 dates ranging from 30 B.C. (UGA-1632) to 745 A.D. (GX-4860); it is recommended each of these sites be nominated to the National Register of Historic Places. Additional survey work will be required on two other sites (40JK37 and 40JK38) to determine their eligibility for inclusion on the Register because of their potentially significant Mississippian and Paleo-Indian/Early Archaic components, respectively.

The catalogue numbers assigned to the artifactual materials recovered from the Salt Lick project are presented within the present text as Appendix C. All materials are stored in the Department of Anthropology, University of Tennessee, Knoxville.

ARCHAEOLOGICAL RECONNAISSANCE, SURVEY AND SALVAGE EXCAVATIONS IN THE SALT LICK RECREATION AREA, JACKSON COUNTY, TENNESSEE

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Report submitted in accordance with U.S. Army Corps of Engineers purchase orders DACW62-76-M-3194 and DACW-76-M-3408.

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ABSTRACT

An archaeological reconnaissance and survey of the Salt Lick Recreation Area, a U.S. Army Corps of Engineers project adjacent to the Cordell Hull Reservoir/Cumberland River in Jackson County, (north central) Tennessee, has documented nine prehistoric sites manifesting occupation from the Paleo-Indian to Mississippian periods. Of these sites, two (40JK3-A and 40JK33) yielded evidence of potentially significant Woodland period occupation in the form of fire pits, limestone tempered plain and cord marked ceramics, a circular house pattern, diagnostic projectile points, faunal and floral remains, and C-14 dates ranging from 30 B.C. (UGA-1632) to 745 A.D. (GX-4860); it is recommended each of these sites be nominated to the National Register of Historic Places. Additional survey work will be required on two other sites (40JK37 and 40JK38) to determine their eligibility for inclusion on the Register because of their potentially significant Mississippian and Paleo-Indian/Early Archaic components, respectively.

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SECTION I

INTRODUCTION

In mid-summer of 1976, the Department of Anthropology, University of Tennessee, Knoxville, was contacted by Mr. Cliff Reinert of the U.S. Army Corps of Engineers, Nashville District, regarding an archeological survey of the proposed Salt Lick Recreation Area situated on the right (north) bank of the Cumberland River/Cordell Hull Reservoir in Jackson County, (north central) Tennessee. Following mutually agreeable arrangements between Mr. Reinert and Dr. Major C.R. McCollough (Department of Anthropology, University of Tennessee, Knoxville), a preliminary survey of the recreation area was undertaken on a personal services basis on 16 July 1976 by Mr. Donald B. Ball (Survey Director) and Mr. W. Douglas Prescott (Survey Assistant). At that time, the vast majority of the area was covered with a dense growth of heavy pasture and/or weeds which permitted ground visibility of, at best, approximately one (1) percent. Despite these unpromising conditions, a small quantity of debitage was recovered in two (2) portions of the recreation area in the tracks of an infrequently used access road. On the basis of this minimal amount of artifactual material and the general appearance of the area's gently undulating ground surface, it was recommended that intensive survey in conjunction with test excavations be undertaken.

Pursuant to the approval of Corps of Engineers purchase order DACW62-76-M-3194, this phase of the project was conducted by Messrs. Ball and Richard D. Taylor from 5-8 August 1976 and resulted in the location of nine (9) prehistoric and four (4) historic period sites. Following on-site consultation with Mr. Brent W. Smith (Archeologist, U.S. Army Corps of Engineers, Nashville District) and Donald B. Ball on 19 August 1976, a formal proposal for salvage excavations on portions of two (2) then construction equipment damaged prehistoric sites in the recreation area was prepared by Dr. McCollough and submitted to the Corps of Engineers. Subsequent to the acceptance of this proposal by the Corps of Engineers on 31 August 1976 and the issuance of purchase order DACW62-76-M-3408, this final phase of field investigation was conducted from 1-10 September 1976 under the principal investigatorship of Dr. McCollough. The field crew of this portion of the project consisted of Donald B. Ball (Field Director), Richard D. Taylor (Field Assistant), Miss Joan Morton and Messrs. David E. High and Jeffrey Jones. The final phases of report preparation were under the principal investigatorship of Dr. Charles H. Faulkner (Department of Anthropology, University of Tennessee, Knoxville). Identification of the small quantities of recovered floral and faunal remains was ably undertaken by Ms. Andrea Brewer Shea and Mr. Arthur E. Bogan, respectively, of the Department of Anthropology, University of Tennessee, Knoxville. A number of the

figures were prepared by Mr. Lloyd N. Chapman (Atlanta, Georgia); additional figures and the cover design were ably executed by Ms. Terry Faulkner (Knoxville, Tennessee).

It would not be inappropriate to take this opportunity to briefly acknowledge the assistance rendered by Messrs. Brad Goodrich (Supervisory Ranger) and Gerald Lee (Ranger) of the Cordell Hull Reservoir staff during the initial reconnaissance effort and Mr. E. A. "Snag" Knight, Corps of Engineers Construction Supervisor, during the hectic period of salvage excavation. Additionally, a very special "thank you" is extended to Mr. Gene Terry Smith of Gladdice Community for the many courtesies extended by both himself and his family to the entire field crew during our stay in Jackson County.

It should be noted that, as an aide to future research within the Cordell Hull Lake area, the catalogue numbers assigned to the artifactual materials recovered from the Salt Lick project are presented within the present text as Appendix A. All materials are stored in the Department of Anthropology, University of Tennessee, Knoxville.

SECTION II

PHYSICAL SETTING

Jackson County, Tennessee, is situated in the Eastern Highland Rim physiographic section of the Interior Low Plateaus physiographic province, an area characterized by a gentle plain averaging about 1,000 feet above mean sea level. Limestones of Mississippian age underlie the majority of the Highland Rim section and in many places, most notably its northwestern reaches, have weathered into deep residual soils. Throughout much of the section the residuum is quite cherty and has a characteristic red color. Within this region, all of the geological strata are nearly horizontal and dip gently away from the Nashville Dome/ Central Basin area (Floyd 1965:7-8, Figure 1; see also Fenneman 1938:415-427, Plate vi).

As stated by the U.S. Army Corps of Engineers, Cordell Hull Lake occupies . . .

> . . . an area of varying topography, ranging from flat agricultural lands located in the relatively narrow flood plain to rough valleys with precipitous bluffs. As a rule, the shoreline lands which are topographically suitable for development are devoid of tree cover. The wooded lands are steep and rocky and frequently not developable. Soils vary in productivity with the surrounding topography. Upland soils are generally shallow, rocky, infertile, and highly susceptible to erosion. Bottom land soils are deeper, more fertile, and suitable for both crops and pasture. The area has a moderate continental-type climate with a mean annual temperature of 60 degrees. July is the hottest month with an average temperature of 80 degrees, and January is the coldest with an average of 42 degrees. Annual precipitation averages near 52 inches and is generally well distributed throughout the year with larger amounts occurring in the winter and early spring, and least amounts in late fall. Annual snowfall is approximately 10 inches. The forest cover, cut over many times in the past, is predominately second-growth hardwoods including ash, hickory, sweetgum, elm, sycamore, hackberry, oak, and maple. Redcedar is common on the thin limestone soils, and Virginia pine is found at scattered locations. At present the Cumberland

> River, within the reservoir area, supports a wide variety of fishes including walleye, small mouth bass, sauger, and other game fish. Commercial species found in the area include freshwater drum, suckers, and channel catfish. Tributary streams such as Roaring River provide good sport fishing for such game fish as small mouth bass, rock bass, and other cold water-tolerant species.
>
> . . . Wildlife resources on the project area are reported as moderate to high. Indigenous to the area are squirrel, rabbits, bobwhite quail, whitetail deer, mink, muskrat, raccoon, opossum, and fox. Migratory species include the mourning dove and various water fowl (U.S. Army Corps of Engineers 1972:3-4).

Several additional brief comments applicable to the natural environment of the Cordell Hull Reservoir area are worthy of attention. As evidenced by the archaeological occurrence of mussel shell fragments on sites 40JK33 and 40JK37 (see Appendix D), it should be noted that pre-impoundment studies of the mussel fauna of the Wolf Creek Reservoir, situated upstream from the study area on the Cumberland River, documented a total of 59 naiad species (Neel and Allen 1964). While recent research has indicated that freshwater mollusks are " . . . not particularly high in food energy" and contain ". . . far fewer calories per given unit than provided by most other meat animals that would have been available in Eastern North America" (Parmalee and Klippel 1974:432), it is nonetheless significant that each of the reported Cumberland River bivalves would have been viable, exploitable species during the prehistoric period.

During the course of the fieldwork phase of the project, enquiry was made with several local residents regarding the assumed presence of at least one salt producing spring in the vicinity which would have been responsible for the naming of Salt Lick Creek. Although these efforts produced no oral history or folklore substantiating this contention, it is known that brine producing wells were dug during the early 1800's in a number of eastern and central Tennessee counties (including Jackson) for the commercial procurement of salt. It is also known that minor deposits of halite (rock salt) have been located in Anderson, White, Van Buren, Warren, Overton, and Jackson counties (Floyd 1965:102). According to data presented by Keslin (1964:Figures 58-59), the Salt Lick area is within one of the three major concentrations of salt available to the prehistoric populations of the eastern half of the United States and near the geographical center of prehistoric salt pan distribution in the eastern United States.

As previously noted, the Highland Rim physiographic section is underlain by limestone formations. Not surprisingly, caverns and rock shelters occur with some frequency. Occasionally occupied by various prehistoric groups, a total of 25 caves may presently be documented within the political boundaries of Jackson County (Barr 1961:271-280; Matthews 1971:52). During fieldwork, the author was informed of six additional caves, each of which is adjacent to the Cumberland River. One of these, the mouth of which is seasonally inundated, is located in a bluff on the left (south) bank of the river near river mile 336.8; another cave, now completely inundated except for the uppermost portion of its mouth, is located on an exterior bend on the right (northwest) bank near river mile 336.1. Two caves immediately adjacent to one another are located on the right (west) bank at river mile 335.5. Two other caves were reported as being upstream from the study area on the left (east) bank at or near river miles 340.1 and 341.3, respectively.

In light of recent research directed toward delineating the origin of Hopewellian (Middle Woodland) meteoritic materials from burial mounds in Ohio and Illinois (Kimberlin and Wasson 1976), the occurrance of one of the three known cryptoexplosion structures in Tennessee (the best known of which is the so-called Wells Creek Crater near Erin in Steward County) near the survey area is of potential archeological interest. Known as the Flynn Creek Structure, this formation is located approximately five miles south of Gainesboro in Jackson County. Although no volcanic or meteoritic material has been found to date at this structure, it exhibits definite similarities to other craters of known meteorite impact origin and it is assumed to have been formed by either meteorite or comet impact (Roddy 1966 cited in Miller 1974:56, Figure 47).

SECTION III

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

In direct contrast to the tremendous amounts of excavation funded in the East Tennessee River Valley, relatively little research has dealt with the archaeological heritage of the middle and upper Cumberland River Valley. Despite this general paucity of work, the meager quantity of comparative data available for this region clearly documents materials derived from each of the major prehistoric cultural periods presently recognized in the Southeastern United States: (1) Paleo-Indian, (2) Archaic, (3) Woodland, and (4) Mississippian.

Roughly dated from ca. 12,000 to 8,000 B.C., the Paleo-Indian Period (cf. MacDonald 1971; Mason 1962) is typically characterized by the presence of small numbers of certain distinctive fluted and unfluted projectile point styles (e.g., Cumberland, Clovis, Redstone, and Beaver Lake). Examples of such points in the upper Cumberland River drainage may be documented from Sumner (Pendarvis 1953), Smith (Lewis, ed. 1961; Morse, Morse and Waggoner 1964), Overton (Lewis, ed. 1958), and Pickett (Hassler 1945) counties, Tennessee, and various localities within the Plateau physiographic region of south-central Kentucky (Rolingson 1964:23, 26). Near the middle Cumberland Valley, additional fluted points have also been reported from Williamson County (Jennings 1946). To date, the best documented Paleo-Indian site in north-central Tennessee is the Wells Creek site (40SW63) situated in the Wells Creek Crater in Steward County (Dragoo 1973).

Generally divided for the sake of convenience into Early, Middle, and Late, the Archaic period dates from about 8,000 to 1,000 B.C. Typified by numerous sites ranging in size from little more than lithic scatters to large, deeply stratified shell middens, the known artifactual assemblages of this period reflect the broad spectrum of Archaic subsistence activities. Included among these items are a variety of serrated, beveled, barbed, and stemmed projectile points, drills, hide scrapers, hammer stones, and atlatl (spear thrower) weights (cf. Broyles 1971; Chapman 1975; 1976; 1977; Coe 1964; Fowler 1959; Webb 1974). Bone during this era was crafted into fish-hooks, atlatl hooks, awls and pins. Perhaps the best documented Archaic habitation area within Tennessee is the Eva site located on the left (west) bank of the Tennessee River in Benton County (Lewis and Lewis 1961; see also Lewis and Kneberg 1959). Within the Cordell Hull Lake the early portion of the Archaic period is best represented by excavations

undertaken at the Jellicourse site (40SM9; Morse n.d. a); the later portion of this period is best represented by excavations conducted during 1963 at the Robinson Shell Mound (40SM4) in Smith County (Morse 1967; Morse and Polhemus n.d.:3-83). A single sandstone bowl, thought to date from the Late Archaic period, has been reported from Smith County (Mohrman 1959).

In comparison to the relatively well documented Adena manifestations of (northern) Kentucky and West Virginia (cf. Dragoo 1963; Swartz, ed. 1971; Webb and Baby 1957; Webb and Snow 1974; see also Caldwell and Hall, eds. 1964) and the Copena burial complex of northern Alabama (cf. Walthall 1972; 1973a; 1973b; Walthall and DeJarnette 1974; Webb and DeJarnette 1942:301-306; Webb and Wilder 1951:273-277), the Woodland Period, roughly dated from about 1,000 B.C. to 900 A.D., is poorly known throughout the middle and upper Cumberland River Valley. Marked by the introduction of the bow and arrow, the widespread utilization of pottery, far reaching trade networks, and earthen and stone mounds erected primarily for burial purposes (cf. Griffin 1967: 180-184, 186-187, 189), evidence of the Woodland Period, primarily in the form of ceramics and diagnostic projectile points, has previously been documented at the Robinson Shell Mound (40SM4; Morse and Polhemus n.d.:3-83; see also Morse 1967) and site 40SM8 (Morse and Polhemus n.d.:197-117) in Smith County within the Cordell Hull Reservoir.

Several references in the available literature pertinent to the general survey area provide intriguing leads to be followed in better defining the Woodland Period within the Cumberland River Valley. Cyrus Thomas in his "Report on the Mound Explorations of the Bureau of Ethnology" noted a site strikingly similar in some respects to the Old Stone Fort (40CF1), an earthwork near Manchester, (Coffee County) Tennessee, C-14 dated from 30 A.D. to 430 A.D. (Faulkner 1967a:33; 1967b:19-20; 1968a:24). As described by Thomas:

> There are a few instances, as in the northern districts, where the embankment is merely a straight or slightly curving wall thrown across a spur or ridge of land at the junction of two streams where the banks are of sufficient height to prevent surprise from that quarter, and the wall is thrown across to guard the landward or more easily accessible side. A work of this kind was found about 12 miles below Carthage, on the Cumberland river, in Smith County. The wall was accompanied by an interior ditch, and had an entrance way, opposite which, and about 6 feet from it, on the inside, were the remains of a wall so placed as to form a rear guard (Thomas 1894:577).

Burial caves comparable to those reported for the Middle Woodland Copena burial complex in northern Alabama (Walthall 1974; Walthall and DeJarnette 1974) have also been recorded in a number of counties throughout the north central Tennessee-south central Kentucky area by Thomas:

> Cave burials . . . lie mostly in a belt extending in a north and south direction through the center of the [Tennessee] district (Thomas 1894:583).

> In most of these caves, both in Kentucky and Tennessee, the bodies appear to have been laid on the floor of the cave, sometimes in beds of ashes, sometimes on a pavement of flat stones. There are, however, some instances in which the bodies have been found incased in stone slabs, and afterwards imbedded in clay or ashes. In Smith and Warren counties, Tennessee, and in Warren and Fayette counties, Kentucky, the flesh of the bodies was preserved and the hair was yellow and of fine texture. In some cases the bodies were enveloped in several thicknesses of coarse cloth with an outer wrapping of deerskin. Some of the bodies were wrapped in a kind of cloth made of bark fiber, into which feathers were woven in such a manner as to form a smooth surface. In two cases the bodies, placed in a sitting or squatting posture, were incased in baskets. In one of the caves in Smith county the body of a female is said to have been found, having about the waist a silver girdle, with marks resembling letters (Thomas 1894:583-584).

Yet another cave yielding similar materials was recorded somewhat later by P. E. Cox. The Taylor's Cave site, located about four miles east of the community of Red Boiling Springs on or near the Jackson-Clay county line, was described as being:

> A tomb site (which) consisted of a sarcophagus about 8 feet square prepared by excavation to a depth of 5 feet where was solid rock. This pit was then filled with ashes to a depth of about 2 feet and the sides lined with baked clay. On the ashes was placed a layer of baked clay about 18 inches thick and on top of this, a layer of hard yellow clay reaching to the surface. Three skeletons were here entombed. The skull of one is believed to be one of the most ancient yet discovered in America. It is of a distinctly brute type. Few crude stones and flint implements were found in this tomb (Cox 1930:127-128).

Additional, related cave burials have also been reported from Salts Cave (Watson 1969:65-69) and Mammoth Cave (Meloy 1977) in south-central Kentucky and elsewhere through the upper Cumberland

River Valley (especially in and around Smith County) by William Edward Myer (1913; 1917). A somewhat lengthy account of a burial cave recorded in the early years of the 19th century near the Caney Fork River, a tributary of the Cumberland, by Pleasant M. Miller (1812) follows the present text as Appendix B.

The fourth and final prehistoric occupation of the upper Cumberland River Valley relates to the Mississippian Period, an era extending from about 900 A.D. to 1600 A.D. Characterized by larger, more densely populated villages largely dependent upon agriculturally produced foodstuffs such as maize, beans, and squash (cf. Griffin 1967:189), the Mississippian Period is simultaneously the most colorful and regionally divergent of the prehistoric cultural periods yet discussed. During this era, increasingly complex social systems give rise to the Southeastern Ceremonial Complex (cf. Howard 1969; Waring and Holder 1945; Witthoft 1949), a widespread religious movement having political overtones with regional centers at sites such as Hiwassee Island in Meigs County, (eastern) Tennessee (cf. Hatch 1974; 1975; Hatch and Wiley 1974; Lewis and Kneberg 1946), Etowah Mounds near Cartersville, Barton County, (northwestern) Georgia (cf. Larson 1971; Moorehead, et al. 1932), Moundville in Hale and Tuscaloosa counties, (west-central) Alabama (cf. Peebles 1970; 1971), Cahokia Mounds near East St. Louis, St. Clair County, (southwestern) Illinois (cf. Brown, ed. 1975; Fowler, ed. 1973), and Spiro Mounds in LeFlore County, (eastern) Oklahoma (cf. Brown 1971; Duffield 1964; Waring and Holder 1945). Among the diagnostic material goods produced by the participants in the Southeastern Ceremonial Complex may be listed engraved shell gorgets (cf. Duffield 1964; Kneberg 1959; Muller 1966), elaborate sheet copper ornaments (cf. Byers 1962; Hamilton, et al. 1974), relatively large stone "idols" (cf. Grant 1871; Nash 1968:33-36; Troost 1845:361-363; Webb and DeJarnette 1942:294-297), ornate stone disks (cf. Jolly and Brendel 1972; Webb and DeJarnette 1942:287-291), monolithic axes (cf. Weatherly 1969; Webb and DeJarnette 1942:299-300), spatulate axes (cf. Webb and DeJarnette 1942:291-294), and "long nosed god masks" of either copper or shell (Williams and Goggin 1956). Beyond these purely status/ceremonial items, a tremendous variety of decorative, shell-tempered ceramics also occur during this period (cf. Phillips 1970; Phillips, et al. 1951).

Through the central portion of the Cumberland River Valley, Mississippian remains are best known in terms of the distinctive stone box burials of the Middle Cumberland Culture clustered around present day Nashville (Davidson County) (cf. Anonymous 1890; Clark 1878; Dowd 1969; 1972; Jones 1876:7-35; O'Bannon 1957; Robertson 1878; Thomas 1891:203; Thruston 1897; Troost 1845: 358-363; Williamson 1972; see also Funkhouser and Webb 1931; Wright 1875). It is unfortunate that all too little research has been directed toward more clearly delineating the more mundane

settlement and subsistence activities of this cultural manifestation (exceptions being Dowd and Brooster 1972; Ferguson, ed. 1972; Myer 1928).

Within the area of the upper Cumberland River Valley, documentation of Mississippian remains is somewhat sketchy. About the turn of the century, William Edward Myer recorded several vestiges of what is now termed the Middle Cumberland Culture (cf. Ferguson, ed. 1972) in this area. Five mounds and a number of stone box burials were noted at the Castalian Springs site in eastern Sumner County (Myer 1894; 1917:99-102, plate VII; see also Smith, ed. 1975:30, 32-33, 35, figs. 8-10). Interestingly, Myer noted the discovery of several stone effigies through the area. One example of these items was found near " . . . the mouth of Falling Water in DeKalb county, Tennessee, near the site of an old Indian cemetery" (Myer 1917:98-99, plate VIa) and two effigies were plowed up close to Riddleton (Smith County) " . . . near an old Indian cemetery on Cumberland River" (Myer 1917:99, plate VIb). Four additional examples were noted as having been found about two miles from the Riddleton site outside of a fortified town/mound complex at the junction of Dixon Creek and the Cumberland River, also in Smith County (Myer 1917:99; 1928:496). In a later study of the distribution of long nosed god masks in the eastern United States, Stephen Williams and John Mann Goggin briefly describe a single example of this artifact type " . . . collected in a cave near Rogana, Sumner County, Tennessee" by Myer. This artifact, made from shell, measured 1 7/8 inches in height by 1 1/2 inches in width with a nose length of 1 11/16 inches (Williams and Goggin 1956:32, figs. 1, 16a, table 1).

Within Jackson County, Dr. Joseph Jones in his Explorations of the Aboriginal Remains of Tennessee, one of the earliest major studies of the archaeology of the state, reported the following site as described by one of his informants:

> At Floyd's Lick, in Jackson County, Tennessee, . . . are the remains of an ancient fortification plainly to be seen. It seems to have consisted of earthworks, with small mounds at the corners, and a much larger mound in the centre. Near the fortification are numerous graves. They are uniformly about four feet in length and two and a half feet wide. The graves are about four feet deep, and consist of broad, smooth, slate stones, pretty nicely cut out and fitted together in the excavations so as to form a stone box. The writer opened one of them twenty years ago, found some bones much decayed, a small earthen vessel or pot, some flint

arrowheads. The bones were so much decayed that nothing of their size or shape could be ascertained (Jones 1876:12; site also noted in Thomas 1891:205).

Somewhat downstream, Jones also noted that:

> Twelve miles below Carthage, and about a mile from the Cumberland River, is a cave in which occurred human bones of all sizes. There is a burying-ground near to the fortification, in which, fifteen years ago, were discovered many skeletons, and with them were deposited pipes and water-vessels of earthenware. Near to this cemetery is a deep creek running into the river, and forming an acute angle with the latter. At some distance from the junction is a ditch running from the creek to the river, and the remains of a parapet. Opposite to the entrance-way, and about six feet from it, is the appearance of a wall on the inside, so formed as to turn those entering to the right or left. In the interior were several mounds (Jones 1876:3; site also noted in Thomas 1891:213; 1894:577).

Situated approximately three miles northeast of the Salt Lick Recreation Area, a large stone box cemetery near the Flynn's Creek Community was the subject of two short, descriptive papers published by Haile (1875) and Haite (1883). Because these articles present an inordinate amount of invaluable data pertinent to the Mississippian occupation of the Cordell Hull Reservoir in general the paper by Haite has been reproduced as Appendix C.

SECTION IV

TYPOLOGY

To facilitate the analysis of the Salt Lick assemblage, the need was recognized for a descriptive lithic typology sufficiently flexible to inventory a sizeable volume of material, yet rigid enough to provide some degree of chronological/cultural data. Toward obtaining this goal, the typological framework utilized has placed particular emphasis on projectile point/knife (PP/K) configuration and the limited quantity of prehistoric ceramics and largely de-emphasized other classes of lithic materials such as debitage, unifacial tools, etc. Nonetheless, the various categories incorporated within this typological framework (detailed below) have attempted to reflect both the morphological attributes and actual or assumed functions of the individual artifacts included in them (cf. Faulkner and McCollough 1973:63-67).

Excluding projectile points/knives and prehistoric ceramics which are discussed separately, the bulk of the artifactual materials recovered have been tabulated in the following morphological/functional categories:

Indeterminate Lithic Reduction*

(1) Primary Decortication Flake
(2) Secondary Decortication Flake
(3) Flat Flake
(4) Bifacial Thinning Flake
(5) Blade/Blade-like Flake
(6) Unidentified/Broken Flake
(7) Core
(8) Worked Nodule
(9) Hammerstone
(10) Pitted Hammestone

Indeterminate Unifacial Tool

(11) Utilized Flake
(12) Flake End Scraper

*As used here and in the following site descriptions, the designation "Indeterminate" indicates that those items so categorized are neither culturally nor chronologically diagnostic.

Indeterminate Unifacial Tool Con't

(13) Flake Side Scraper
(14) Spokeshave
(15) Graver
(16) Combination Tool
(17) Discoidal Scraper
(18) Core Scraper
(19) Core Spokeshave
(20) Bifacial Fragment
(21) Blank/Preform
(22) Chipped Notched "Hoe"

Paleo-Indian Unifacial Tool

(23) Resolved Flake End Scraper

Ground Stone

(24) Celt

Other Stone

(25) Geode Fragment
(26) Fire-cracked Rock
(27) Burned Limestone
(28) Burned Sandstone Fragment
(29) Burned Clay
(30) Unworked Shale Fragment
(31) Crinoid Stem
(32) Unworked Pebble
(33) Unworked Nodule

INDETERMINATE LITHIC REDUCTION

Primary Decortication Flake (not illustrated)

This category of debitage consists of " . . . flakes on which the entire dorsal, or outer, surface is covered by cortex or is naturally worn such as would result from water transport . . . It is generally thought that the relative frequency of primary decortication flakes reflects a site's proximity to the raw material source; a relatively high frequency indicating close proximity; and a low frequency indicating distant removal from the source"(Kline 1977:18, 20). The low frequencies of these flakes

in the Salt Lick Recreation Area sites strongly suggests that chert procurement occurred some distance from the vicinity, possibly in the upland areas.

Secondary Decortication Flake (not illustrated)

The " . . . specimens in this category represent flakes which retain a partial cortex cover on their dorsal surfaces. From the standpoint of almost any lithic reduction sequence one would expect to find . . . a proportional increase of secondary over primary decortication debitage" (Kline 1977:20).

Flat Flake (not illustrated)

This type of debitage consists of "Flake(s) detached by direct percussion from a core or blank, from which all cortical material was previously removed" (Faulkner and McCollough 1973:80). Additional criteria for inclusion in this category includes " . . . striking platforms which are relatively wide and thick, and have a flake angle approaching, but generally somewhat less than, 90°" (Kline 1977:21).

Bifacial Thinning Flake (not illustrated)

These flakes are " . . . usually expanding and thin, with minimum thickness at distal end; showing scars of previous bifacial removals on dorsal surface, and retaining platform evidence of removal from a bifacial blank" (Faulkner and McCollough 1973:80). As noted by Kline, bifacial thinning flakes, because of their thinness, are especially " . . . prone to breakage both upon and subsequent to removal" (Kline 1977:21-22). As a consequence, many of these flakes may be incomplete and therefore classified as "Unidentified/Broken" (see below).

Blade/Blade-like Flake (not illustrated)

These flakes are typically defined as having a " . . . length being equal to, or more than, twice the width" (Crabtree 1972:42). The sporadic occurrence of these artifacts among the examined assemblages and the complete lack of specialized blade producing cores does not constitute sufficient evidence to postulate a formal blade industry in the survey area.

Unidentified/Broken Flake (not illustrated)

Flakes so classified typically consisted of shatter fragments of various sizes, flakes insufficiently complete to be specifically identified, and occasional fire-damaged flakes exhibiting numerous "pot lid" fractures.

Core (not illustrated)

A core may be defined as any chunk of "Chert or other nucleus from which large flakes have been detached" (Faulkner and McCollough 1973:80). None of the cores examined from the survey collections exhibited evidence of a standardized blade industry.

Worked Nodule (not illustrated)

This generalized category incorporates masses of chert from which only one or two large flakes had been removed. Such pieces may represent either chert of inferior quality and therefore unsuitable for additional reduction or items which were simply abandoned before being further worked.

Hammerstone (not illustrated)

These rough cobbles exhibited a pecked area over at least a portion of their surface attributable to battering (cf. Faulkner and McCollough 1973:80). Typically such implements were used to begin the initial reduction stage of a nodule of unworked chert or quartz.

Pitted Hammerstone (not illustrated)

Comparable in function and general appearance to the above described hammerstones, pitted hammerstones also exhibit small, shallow (ca. 2-3 mm) finger depressions on two opposed surfaces.

INDETERMINATE UNIFACIAL TOOL

Utilized Flake (not illustrated)

This generalized type included all flakes exhibiting " . . . very irregular or localized retouch, small irregular edge removals not constituting retouch, and/or edge wear" (Faulkner and McCollough 1973:81).

Flake End Scraper (not illustrated)

Tools so classified bear a convex or straight working edge along at least one short axis. This working edge is formed by the removal of ". . . a continuous line of relatively steep retouch" flakes (Faulkner and McCollough 1973:81, Plate V; see also Converse 1970:16 and Crabtree 1972:60).

Flake Side Scraper (not illustrated)

As defined on the basis of surface collections from the Normandy Reservoir in Coffee County, (south central) Tennessee, this tool consists of "A flake carrying one or more convex, straight, or long shallow concave working edge formed by a continuous line of relatively steep retouch, on the lateral margin(s) of the flake" (Faulkner and McCollough 1973:81, Plate vi; see also Cambron and Hulse 1967:6 and Crabtree 1972:90).

Spokeshave (not illustrated)

This category of tool may be defined as flakes with " . . . an intentional semicircular multiple blow notch which is broad and deep" (Faulkner and McCollough 1973:82, Plate ix; see also Cambron and Hulse 1967:15). As noted by Kline, these artifacts have been " . . . interpreted as scraping tools used to form and smooth cylindrical objects of bone, wood and antler; tasks that would logically be concomitant with activities associated with hunting and butchering" (Kline 1977:27).

Graver (not illustrated)

This tool consists of a "Flake with one or more tiny sharp pointed projections, formed by localized retouch sometimes alternate" (Faulkner and McCollough 1973:82, Plate x; see also Cambron and Hulse 1967:15).

Combination Tool (not illustrated)

Within the various site assemblages examined from the survey area, occasional flake tools were observed which represented dual-function implements in that they combined attributes assignable to at least two of the various unfacial tool categories described above (cf. Cambron and Hulse 1967:21). Single examples of spokeshave/utilized flake and spokeshave/side-scraper combinations were noted from the road cut (southern) portion of site 40JK33.

Discoidal Scraper (not illustrated)

These tools are fashioned from a "Discoidal flake with scraping edge formed by continuous relatively steep marginal retouch, around most or all of the circumference" (Faulkner and McCollough 1973:81, Plate v). A single example of this tool type was noted in the surface assemblage from site 40JK34.

Core Scraper (not illustrated)

Examples of this tool type consist of a "Core of any form on which continuous heavy marginal retouch has been applied to a significant segment of the striking platform" (Faulkner and McCollough 1973:84; see also Cambron and Hulse 1967:9). A single core scraper was noted in the surface assemblage from the road cut (southern) portion of site 40JK33.

Core Spokeshave (not illustrated)

A single implement consisting of a core with a spokeshave-type concave working edge was noted in the surface assemblage from the road cut (southern) portion of site 40JK33.

INDETERMINATE BIFACIAL TOOL

Bifacial Fragment (not illustrated)

This generalized category includes lithic items (less projectile points/knives or portions thereof) exhibiting bifacial workmanship but otherwise unidentifiable. Typically these items were relatively thick and crudely flaked.

Blank/Preform (not illustrated)

Artifacts so classified represent an interim stage of lithic reduction between an unworked nodule and a finished bifacial implement. The workmanship on such artifacts may vary from thick, crude "roughouts" to thin, well flaked forms (cf. Faulkner and McCollough 1973:types 24 and 25, p. 83, Plates xii and xiii). For purposes of the present study, amorphous thick bifaces (ibid.:83) and blank/roughout (ibid.:83) implements have been incorporated in this generalized category.

Chipped Notched "Hoe" (not illustrated)

Probably used for the excavation of fire and/or storage pits, similar implements have been noted in Late Archaic context at

the Indian Knoll Site in Ohio County, (western) Kentucky (Webb 1974:273, Figure 38d) and were used into later periods. A single possible example of this tool type was noted in the surface assemblage from site 40JK35.

PALEO-INDIAN UNIFACIAL TOOL

Resolved Flake End Scraper (not illustrated)

This specialized form of flake end scraper is generally associated with Paleo-Indian and Transitional Paleo assemblages (cf. Coe 1964:73-76) although they may well have been used sporadically into somewhat later times (Cambron and Hulse 1967: 3-4). Studies by Wilmsen have indicated that these tools typically exhibit a working edge angle of 46 to 55 degrees, an angulation suitable for " . . . (1) skinning and hide scraping, (2) sinew and plant fiber shredding, (3) heavy cutting of wood, bone, or horn, and (4) tool back blunting" (Wilmsen 1970:70). A single broken example of this tool type was recorded in the surface assemblage from site 40JK33.

GROUND STONE

Celt (not illustrated)

A hafted implement used for cutting wood, a single example of this pecked and ground tool fashioned from greenstone was found in Feature 1 on site 40JK3-A. This implement measured 86 mm in length, a maximum of 55 mm in width, and 18 mm in thickness.

OTHER STONE

Geode Fragment (not illustrated)

A fragment of a quartz geode (i.e., a nodule containing a crystal filled cavity; see Emmons et al. 1939:282) was noted in the surface assemblage from the road cut (southern) portion of site 40JK33. Although this item is not an artifact per se, it may well represent a manuport and possess some cultural significance.

Fire-cracked Rock (not illustrated)

Fragments of locally derived, fire broken cobbles were noted in the assemblages from sites 40JK3-A and 40JK32. Such items were produced throughout many cultural periods and have no chronologically diagnostic value.

Burned Limestone (not illustrated)

Lumps of "chalky" limestone were observed in the assemblages from several sites in the survey area, most notably the road cut (southern) portion of site 40JK33. Typically associated with hearths or fire pits, these items have no chronologically diagnostic value.

Burned Sandstone Fragment (not illustrated)

Small pieces of apparently locally derived and fire-cracked sandstone were noted in the assemblages from several sites in the survey area. These items have no chronologically diagnostic value.

Burned Clay (not illustrated)

A total of four lumps of burned clay was found in Feature 2 on site 40JK3-A. Such items are the result of fire exposed clay surrounding a hearth and are not purposefully produced artifacts in the strict sense of the term.

Unworked Shale Fragment (not illustrated)

Being unworked, these items do not qualify as artifacts per se although they may, in fact, represent unidentifiable pieces of now disintegrated articles or the remnants of unworked raw materials intended for modification of some sort.

Crinoid Stem (not illustrated)

Much like the above noted unworked shale fragments, crinoid stems are not in-and-of-themselves artifactual in nature. These items are noted here solely because they may, in fact, represent unmodified source material for the manufacture of beads as evidenced by the occurrence of at least two perforated crinoid stems recovered in uncertain but nonetheless prehistoric cultural context from excavations on Moccasin Bend in Hamilton County, Tennessee (Graham 1964: Plate xvi-b). Within the survey area, a single broken crinoid stem measuring 19.5 mm in diameter by 22+ mm in length was removed from Feature 1 on site 40JK3A. Another,

but unbroken, crinoid stem measuring 18 mm in diameter by 34 mm in length was discovered in the plow zone strata of Test Pit 1 on site 40JK33.

Unworked Pebble/Unworked Nodule (not illustrated)

Completely non-cultural in nature, unworked peebles or nodules were recorded only when their material was sufficiently unusual to warrent doing so. Such items may or may not have had any cultural significance.

PROJECTILE POINTS/KNIVES

Representing virtually the only class of artifact capable of yielding data pertinent to the chronological position of the sites recorded in the Salt Lick Recreation Area, projectile points and knives were subjected to detailed morphological examination and subsequently cross referenced to published data on stylistically similar, dated artifacts from other areas (e.g., Cambron and Hulse 1969; Faulkner and McCollough 1973; Fowler 1959). With few exceptions, no distinction has been made in the present analysis between projectile points per se and morphologically similar bifacial, hafted knives (cf. Ahler 1970). Roughly segregated on the basis of hafting method, the descriptive terminology utilized here closely approximates that of Cambron and Hulse (1969).

Following the approach outlined above, the following PP/K types were recorded in the Salt Lick collections (see also Table 1):

Indeterminate

PP/K#1	Indeterminate Blade/Distal Fragment
PP/K#2	Indeterminate Basal Fragment

Lanceolate

PP/K#3	Lanceolate; Medium; Excurvate, Finished Base; Excurvate Blade

Barbed

PP/K#4	Barbed; Medium; Broad, Straight, Finished Base; Expanded Stem; Corner Removed
PP/K#5	Barbed; Medium; Incurvate, Finished Base; Corner Removed

Table 1: Suggested PP/K Temporal Associations

Period	PP/K#
Indeterminate	1- 2
Early Archaic	6 10-15
Early/Middle Archaic	4- 5
Middle Archaic	7- 9
Late Archaic	3 16-26 28-39
Woodland	27 40-46

Barbed Con't

PP/K#6	Barbed; Medium; Excurvate, Finished Base; Corner Removed

Side Notched

PP/K#7	Side Notched; Large; Straight, Finished Base
PP/K#8	Side Notched; Large; Incurvate, Finished Base
PP/K#9	Side Notched; Medium; Unfinished Base

Corner Removed

PP/K#10	Corner Removed; Small; Straight, Finished Base
PP/K#11	Corner Removed; Medium; Incurvate, Finished Base
PP/K#12	Corner Removed; Medium; Straight, Finished Base; Long, Straight Blade
PP/K#13	Corner Removed; Medium; Unfinished Base; Long, Straight Blade
PP/K#14	Corner Removed; Medium; Excurvate, Unfinished Base
PP/K#15	Irregular Corner Removed; Medium; Incurvate, Finished Base

Contracted Stem

PP/K#16	Contracted Stem; Medium; Excurvate, Unfinished Base; Strong Shoulder
PP/K#17	Contracted Stem; Medium; Excurvate, Finished Base; Weak Shoulder

Straight Stem

PP/K#18	Straight, Short Stem; Medium; Incurvate, Finished Base; Strong Shoulder
PP/K#19	Straight, Short Stem; Medium; Straight, Finished Base; Weak Shoulder

Straight Stem Con't

PP/K#20	Straight, Short Stem; Medium; Straight, Unfinished Base; Weak Shoulder
PP/K#21	Broad, Straight Stem; Large; Straight, Finished Base; Strong Shoulder
PP/K#22	Straight Stem; Medium; Unfinished Base; Strong Shoulder
PP/K#23	Straight Stem; Medium; Straight, Finished Base; Weak Shoulder
PP/K#24	Long, Straight Stem; Medium; Excurvate, Finished Base; Weak Shoulder
PP/K#25	Straight Stem; Medium; Straight, Finished Base; Slightly Barbed Shoulder
PP/K#26	Straight Stem; Medium; Incurvate, Finished Base; Slightly Barbed Shoulder
PP/K#27	Straight, Long Stem; Medium; Excurvate, Finished Base; Weak Shoulder

Expanded Stem

PP/K#28	Expanded Stem; Medium; Straight, Finished Base; Weak Shoulder
PP/K#29	Slightly Expanded Stem; Small; Straight(?) Finished Base; Weak Shoulder
PP/K#30	Expanded Stem; Medium; Straight, Finished Base; Strong Shoulder
PP/K#31	Expanded Stem; Small; Unfinished Base; Slightly Barbed
PP/K#32	Expanded Stem; Medium; Straight, Finished Base; Slightly Barbed
PP/K#33	Broad, Expanded Stem; Medium; Straight, Finished Base; Slightly Barbed
PP/K#34	Short, Slightly Expanded Stem; Medium; Excurvate, Finished Base; Strong Shoulder
PP/K#35	Expanded Stem; Small; Excurvate, Finished Base; Weak Shoulder

Expanded Stem Con't

PP/K#36	Expanded Stem; Medium; Excurvate, Finished Base; Weak Shoulder
PP/K#37	Expanded Stem; Medium; Excurvate, Finished Base; Weak Shoulder; Narrow Blade
PP/K#38	Broad, Expanded Stem; Medium; Incurvate, Finished Base; Weak Shoulder
PP/K#39	Broad, Expanded Stem; Medium; Incurvate, Finished Base; Strong Shoulder
PP/K#40	Expanded Stem; Small; Straight, Finished Base; Weak Shoulder
PP/K#41	Expanded Stem; Medium; Straight, Unfinished Base; Weak Shoulder

Triangular

PP/K#42	Triangular; Medium; Straight, Finished Base
PP/K#43	Triangular; Medium; Incurvate, Finished Base; Thick Blade
PP/K#44	Triangular; Large; Straight, Finished Base; Thick Blade
PP/K#45	Triangular; Large; Straight, Finished Base
PP/K#46	Triangular; Large; Straight, Unfinished Base

DETAILED PP/K DESCRIPTIONS

PP/K#1. Indeterminate Blade/Distal Fragment (not illustrated)

Hafting Method: N/A

Base Shape: N/A

Blade Shape: Highly variable with straight, incurvate, and excurvate examples present.

Blade Cross Section: Typically biconvex

Sample Size: 79 (provenience noted in site descriptions)

Size: The general size range of the majority of these artifacts suggests that they were derived from "medium" to "large" projectile points or knives; individual measurements were not recorded.

Remarks: Representing the largest, most inclusive PP/K "type" utilized in the present analysis, these artifacts may date from the Early Archaic to Mississippian period and are largely without diagnostic value.

PP/K#2. Indeterminate Basal Fragment (not illustrated)

Hafting Method/Base Shape: Indefinite; most examples probably stemmed.

Blade Shape: Highly variable with straight, incurvate, and excurvate examples present.

Blade Cross Section: Typically biconvex (when present).

Sample Size: 13 (provenience noted in site descriptions)

Size: The general size range of the majority of these artifacts suggests they were derived from "medium" to "large" projectile points or knives; individual measurements were not recorded.

Remarks: The majority of these artifacts probably date from the Archaic to Woodland period. For purposes of the present study, these artifacts have been assigned an "Indeterminate" chronological status.

PP/K#3. Lanceolate; Medium; Excurvate, Finished Base; Excurvate Blade (Plate 1)

Hafting Method: Lanceolate

Base Shape: Excurvate, finished, heavily ground

Blade Shape: Excurvate

Blade Cross Section: Flattened

Sample Size: 1 (1/40JK33)

Size: Width = 28 mm
Length = (44.5 mm+)
Thickness = 8 mm

Remarks: This stylistically distinctive biface appears to be most closely related to the "thinned lanceolate bifaces" reported from the Normandy Reservoir in Coffee County, (south

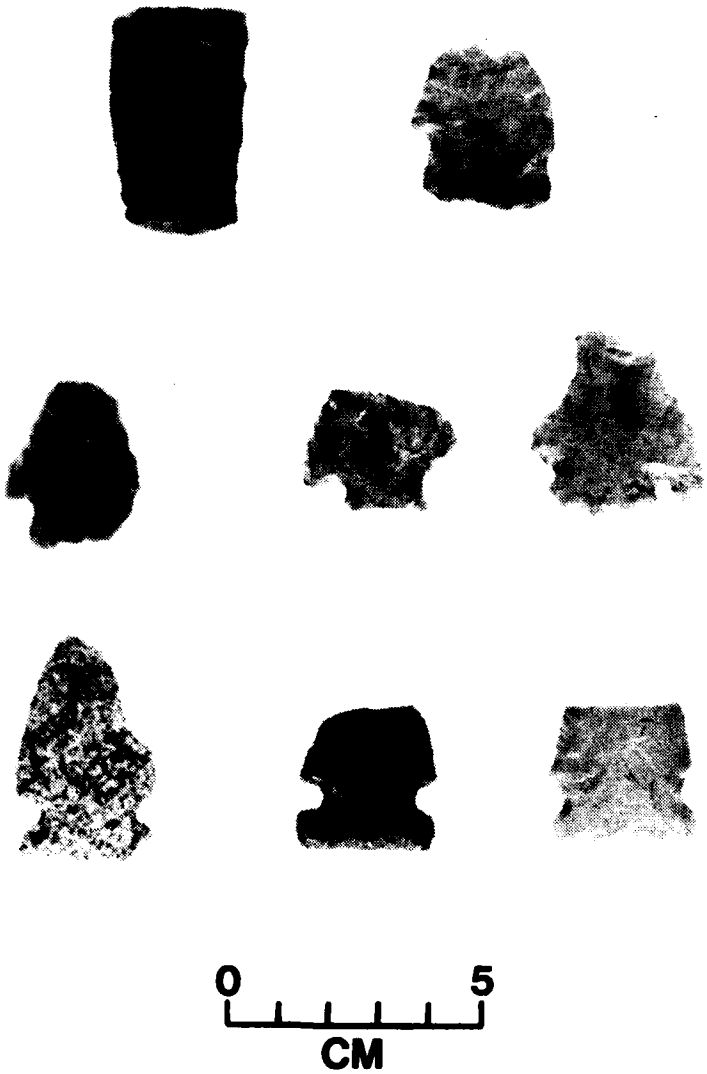


Plate 1. Row 1 (left to right) - PP/K#3; PP/K#4
Row 2 - PP/K#5 a, b; PP/K#6
Row 3 - PP/K#7 a, b, c

central) Tennessee (Faulkner and McCollough 1973:83, plate xiv). Although definitive chronological data is lacking, this artifact probably dates to the Late Archaic period.

PP/K#4. Barbed; Medium; Broad, Straight, Finished Base; Expanded Stem; Corner Removed (Plate 1)

Hafting Method: Barbed

Base Shape: Broad, straight, finished, ground base

Blade Shape: Straight (?)

Blade Cross Section: Flattened

Sample Size: 1 (1/40JK33)

Size: Width = 29 mm
Length = (33.5 mm+)*
Thickness = 7 mm

*Reworked as hafted end scraper

Remarks: On the basis of hafting morphology, this reworked projectile point/knife is stylistically similar to the northern Alabama type Big Slough and dates to the Early or Middle Archaic period (Cambron and Hulse 1969:14).

PP/K#5. Barbed; Medium; Incurvate, Finished Base; Corner Removed (Plate 1)

Hafting Method: Barbed

Base Shape: Incurvate, finished, lightly ground base

Blade Shape: Straight (N=1) or excurvate (N=1)

Blade Cross Section: Flattened

Sample Size: 2

Size:	Site	Width	Length	Thickness
a)	1/40JK36	26 mm	(33 mm+)*	6 mm
b)	1/40JK00	(31 mm+)	(24 mm+)	6 mm
Mean		----	----	6 mm

*Reworked as hafted end scraper.

Remarks: On the basis of hafting morphology, these projectile points may date to the Early or Middle Archaic period (see "Remarks," PP/K#4).

PP/K#6. Barbed; Medium; Excurvate, Finished Base; Corner Removed (Plate 1)

Hafting Method: Barbed

Base Shape: Excurvate, finished, unground base

Blade Shape: Reworked but probably excurvate when originally made.

Blade Cross Section: Flattened

Sample Size: 1 (1/40JK3-A)

Size: Width = (34 mm+)
Length = (36.5 mm+)
Thickness = 7 mm

Remarks: On the basis of hafting morphology, this projectile point probably dates to the Early Archaic period (cf. Cambron and Hulse 1969:46, 70, 78, 92).

PP/K#7. Side Notched; Large; Straight, Finished Base (Plate 1)

Hafting Method: Side Notched

Base Shape: Straight, finished, ground base

Blade Shape: Straight

Blade Cross Section: Flattened

Sample Size: 3

Size:	Site	Width	Length	Thickness
a)	1/40JK3-A	(33 mm+)	(44.5 mm+)	7 mm
b)	10/40JK33	28 mm	(34 mm+)	7 mm
c)	1/40JK35	29 mm	(28 mm+)	8 mm
		28.5 mm	----	7.3 mm

Remarks: Related to the type Big Sandy (Bell 1960:8-9; Cambron and Hulse 1969:13; Lewis and Lewis 1961:34, 37, plate 7) and named for the Big Sandy component at the Eva Site in Benton County, (western) Tennessee, these examples probably date to the Middle or Late Archaic period (ca. 5,000 to 1,000 B.C.). A generalized category of "side notched" projectile points reported from the Modoc Rock Shelter in Randolph County, (southwestern)

Illinois, were dated from ca. 3,000 to 6,000 B.P. or during the Middle Archaic period (Fowler 1959: Fig. 9-f).

PP/K#8. Side Notched; Large; Incurvate, Finished Base (Plate 2)

Hafting Method: Side Notched

Base Shape: Incurvate, finished, ground base

Blade Shape: Straight

Blade Cross Section: Flattened

Sample Size: 1 (10/40JK33)

Size: Width = 25 mm
Length = (42 mm+)
Thickness = 6.5 mm

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Middle or Late Archaic period (see "Remarks," PP/K#7)

PP/K#9. Side Notched; Medium; Unfinished Base (Plate 2)

Hafting Method: Side notched

Base Shape: Unfinished base

Blade Shape: Excurvate

Blade Cross Section: Flattened

Sample Size: 1 (1/40JK33)

Size: Width = 21 mm
Length = (38 mm+)
Thickness = 7 mm

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Middle or Late Archaic period (see "Remarks," PP/K#7).

PP/K#10. Corner Removed; Small; Straight, Finished Base (Plate 2)

Hafting Method: Corner Removed

Base Shape: Straight, finished, lightly ground base

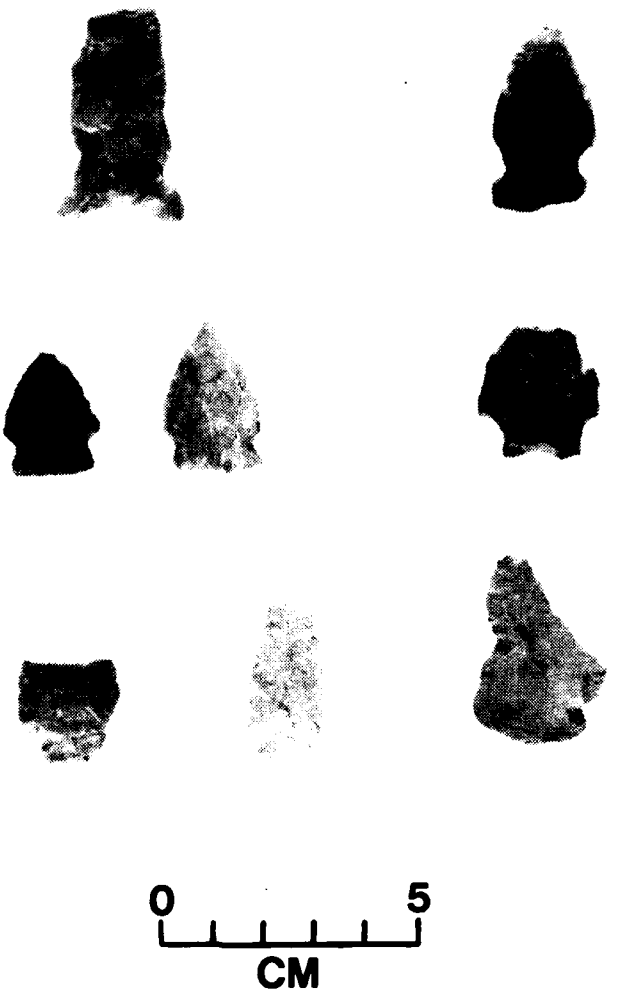


Plate 2. Row 1 (left to right) - PP/K#8; PP/K#9
Row 2 - PP/K#10 a, b; PP/K#11
Row 3 - PP/K#12; PP/K#13; PP/K#14

Blade Shape: Excurvate

Blade Cross Section: Flattened

Sample Size: 2

Size:	Site	Width	Length	Thickness
a)	1/40JK3-A	19 mm	(24 mm+)	5 mm
b)	1/40JK33	20.5 mm	30 mm	6.5 mm
Mean		19.8 mm	----	5.8 mm

Remarks: On the basis of its hafting technique, this point type may date to the Early Archaic period (cf. northern Alabama type White Springs, Cambron and Hulse 1969:116; and Fowler 1959: figs. 9-a, 14). It should be noted that altogether too little research has been devoted to the general category of "corner removed" projectile points and the assigned chronological placement of these artifacts must, of necessity, be subjected to extensive review as additional data becomes available.

PP/K#11. Corner Removed; Medium; Incurvate, Finished, Base (Plate 2)

Hafting Method: Corner Removed

Base Shape: Incurvate, finished, ground base

Blade Shape: Excurvate

Blade Cross Section: Flattened

Sample Size: 1 (10/40JK33)

Size: Width = 24 mm
Length = (26.5 mm+)
Thickness = 7 mm

Remarks: On the basis of its hafting technique, this projectile point may date to the Early Archaic perio[illegible]ee "Remarks," PP/K#10).

PP/K#12. Corner Removed; Medium; Straight, Finished Base; Long, Straight Blade (Plate 2)

Hafting Method: Corner Removed

Base Shape: Straight, finished, ground base

Blade Shape: Long, straight

Blade Cross Section: Flattened

Sample Size: 1 (1/40JK3-A)

Size: Width = 20 mm
Length = (21.5 mm+)
Thickness = 5.5 mm

Remarks: On the basis of its hafting technique, this projectile point may date to the Early Archaic period (see "Remarks," PP/K#10).

PP/K#13. Corner Removed; Medium; Unfinished Base; Long, Straight Blade (Plate 2)

Hafting Method: Corner Removed

Base Shape: Unfinished base (possibly broken)

Blade Shape: Long, straight

Blade Cross Section: Flattened

Sample Size: 1 (1/40JK3-A)

Size: Width = 16 mm
Length = (35 mm+)
Thickness = 7 mm

Remarks: On the basis of its hafting technique, this projectile point may date to the Early Archaic period (see "Remarks," PP/K#10).

PP/K#14. Corner Removed; Medium; Excurvate, Unfinished Base (Plate 2)

Hafting Method: Corner Removed

Base Shape: Unfinished

Blade Shape: N/A (original blade extensively reworked)

Blade Cross Section: Flattened

Sample Size: 1 (1/40JK3-A)

Size: Width = 25 mm
Length = (35.5 mm+)
Thickness = 4.5 mm

Remarks: On the basis of its hafting technique, this projectile point may date to the Early Archaic period (see "Remarks," PP/K#10).

PP/K#15. Irregular Corner Removed; Medium; Incurvate, Finished Base (Plate 3)

Hafting Method: Corner Removed

Base Shape: Incurvate, finished, lightly ground base

Blade Shape: Excurvate (probably reworked)

Blade Cross Section: Flattened

Sample Size: 1 (1/40JK33)

Size: Width = 25 mm (blade edge probably reworked)
Length = (35 mm+)
Thickness = 7 mm

Remarks: On the basis of its hafting technique, this projectile point may date to the Early Archaic period (see "Remarks," PP/K#10).

PP/K#16. Contracted Stem; Medium; Excurvate, Unfinished Base; Strong Shoulder (Plate 3)

Hafting Method: Contracted stem

Base Shape: Unfinished (possibly broken)

Blade Shape: N/A (probably excurvate)

Blade Cross Section: Biconvex

Sample Size: 1 (1/40JK34)

Size: Width = 30 mm
Length = (31 mm+)
Thickness = 10 mm

Remarks: The contracted stem hafting technique of this projectile point is similar to that of the northern Alabama type Gary which dates from the Late Archaic to Woodland period (Cambron and Hulse 1969:47). Projectile points of this nature have a widespread distribution throughout the Mississippi Basin and the eastern United States; the Gary point per se is " . . . a particularly common type in the states of Oklahoma, Arkansas, Louisiana and Mississippi" (Bell 1958:28). Contracted stem projectile points were noted as a consistently occurring minority type in the upper levels of the Modoc Rock Shelter in Randolph County, (southwestern) Illinois, where they dated from ca. 4,500 B.C. to as late as ca. 1,500 B.C. (Fowler 1959: fig. 14).

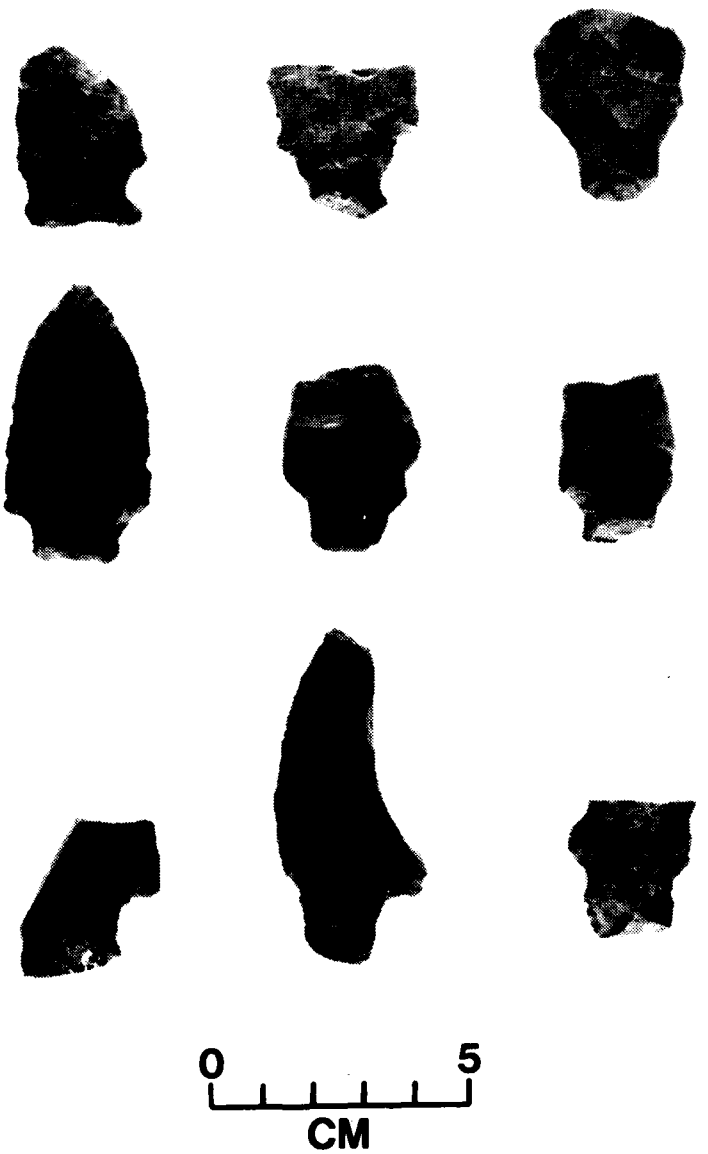


Plate 3. Row 1 (left to right) - PP/K#15; PP/K#16; PP/K#17
Row 2 - PP/K#18; PP/K#19; PP/K#20
Row 3 - PP/K#21; PP/K#22; PP/K#23

PP/K#17. Contracted Stem; Medium; Excurvate, Finished Base; Weak Shoulder (Plate 3)

Hafting Method: Contracted Stem

Base Shape: Excurvate, finished, ground base

Blade Shape. N/A (probably excurvate)

Blade Cross Section: Biconvex

Sample Size: 1 (10/40JK33)

Size: Width = 30 mm
Length = (37.5 mm+)*
Thickness = 10.5 mm

*Reworked as hafted end scraper.

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#16).

PP/K#18. Straight, Short Stem; Medium; Incurvate, Finished Base; Strong Shoulder (Plate 3)

Hafting Method: Straight Stem

Base Shape: Incurvate, finished, ground base

Blade Shape: Excurvate

Blade Cross Section: Flattened

Sample Size: 1 (1/40JK36)

Size: Width = 28.5 mm
Length = 54 mm
Thickness = 7.5 mm

Remarks: This projectile point, and most of the series of straight stemmed examples noted below (cf. PP/K#'s 19-26), falls typologically into a poorly documented cluster of lithic artifacts dating from the Middle Archaic through Woodland periods. At the Eva site in Benton County, (western) Tennessee, straight stemmed projectile points were found in quantity in the Three Mile component, dated ca. 4,000 to 2,000 B.C. and the Big Sandy component, dated 2,000 to 1,000 B.C. (Lewis and Lewis 1961:33-34, plate 5 f-k). Similarly hafted projectile points in Ohio have simply been dated to the Archaic period (Converse 1970:26, 42). In the Modoc Rock Shelter in Randolph County, (southwestern) Illinois, straight stemmed projectile points were encountered in

the upper levels and tentatively dated from ca. 6,000 B.C. to as late as ca. 1,500 B.C. (Fowler 1959: figures 9c, 14). The type Cotaco Creek, generally appearing on sites along the Tennessee River, exemplifies the continued use of this hafting technique into the Woodland period (Cambron and Hulse 1969: 27-28; Perino 1971:18-19) as do certain examples of the long stemmed point type Adena (Bell 1958:4-5; Cambron and Hulse 1969:2-3; Converse 1970:49-52). The majority of the present examples of this hafting style probably appeared during the Late Archaic period and have been so classified.

PP/K#19. Straight, Short Stem; Medium; Straight, Finished Base; Weak Shoulder (Plate 3)

Hafting Method: Straight stem

Base Shape: Straight, finished, ground base

Blade Shape: N/A (excurvate?)

Blade Cross Section: Flattened

Sample Size: 1 (1/40JK33)

Size: Width = 27 mm
Length = (36 mm+)
Thickness = 9 mm

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#18).

PP/K#20. Straight, Short Stem; Medium; Straight, Unfinished Base; Weak Shoulder (Plate 3)

Hafting Method: Straight stem

Base Shape: Straight, unfinished base

Blade Shape: Slightly excurvate

Blade Cross Section: Flattened

Sample Size: 1 (1/40JK33)

Size: Width = 23 mm
Length = (33 mm+)
Thickness = 7 mm

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#18).

PP/K#21. Broad Straight Stem; Large; Straight, Finished Base; Strong Shoulder (Plate 3)

Hafting Method: Broad, straight stem

Base Shape: Straight, finished, ground base

Blade Shape: N/A (probably excurvate)

Blade Cross Section: Biconvex

Sample Size: 1 (1/40JK3-A)

Size: Width = (29 mm+)
Length = (30 mm+)
Thickness = 9 mm

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#18).

PP/K#22. Straight Stem; Medium; Unfinished Base; Strong Shoulder (Plate 3)

Hafting Method: Straight stem

Base Shape: Unfinished base

Blade Shape: Excurvate

Blade Cross Section: Flattened

Sample Size: 1 (1/40JK36)

Size: Width = (30.5 mm+)
Length = (64 mm+)
Thickness = 7 mm

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#18).

PP/K#23. Straight Stem; Medium; Straight, Finished Base; Weak Shoulder (Plate 3)

Hafting Method: Straight stem

Base Shape: Straight, finished, ground base

Blade Shape: N/A (excurvate?)

Blade Cross Section: Biconvex

Sample Size: 1 (1/40JK33)

Size: Width = 24.5 mm
Length = (29 mm+)
Thickness = 7 mm

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#18).

PP/K#24. Long, Straight Stem; Medium; Excurvate, Finished Base; Weak Shoulder (Plate 4)

Hafting Method: Long, straight stem

Base Shape: Excurvate, finished, unground base

Blade Shape: Long, narrow, straight

Blade Cross Section: Biconvex

Sample Size: 1 (1/40JK3-A)

Size: Width = 19 mm
Length = (36 mm+)
Thickness = 10 mm

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#18).

PP/K#25. Straight Stem; Medium; Straight, Finished Base; Slightly Barbed Shoulder (Plate 4)

Hafting Method: Straight stem

Base Shape: Straight, finished, ground base

Blade Shape: Excurvate

Blade Cross Section: Flattened

Sample Size: 1 (1/40JK3-A)

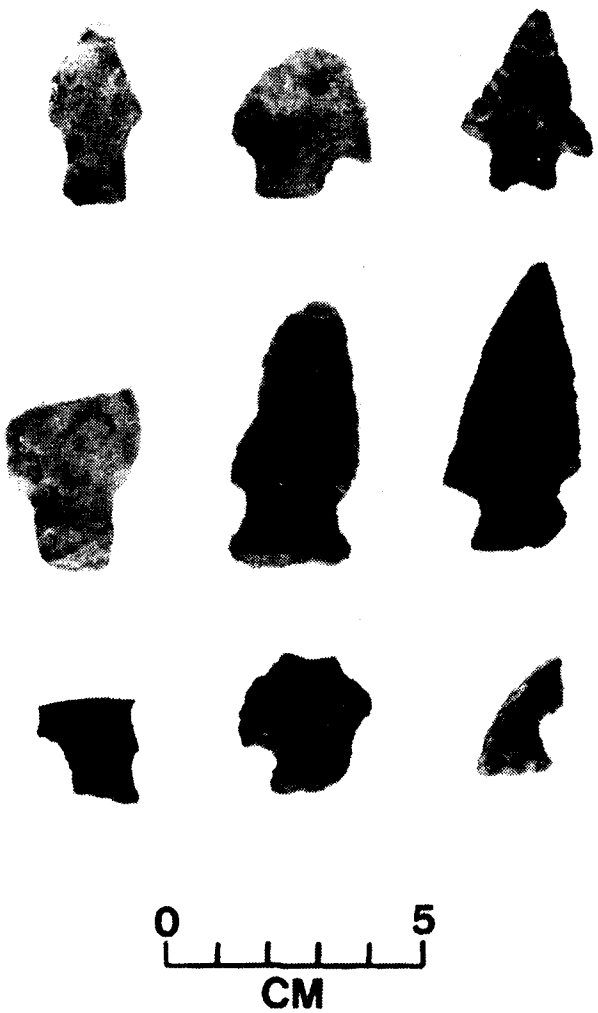


Plate 4. Row 1 (left to right) - PP/K#24; PP/K#25; PP/K#26
Row 2 - PP/K#27; PP/K#28 a, b
Row 3 - PP/K#29; PP/K#30 a, b

Size: Width = 28 mm
Length = (31.5 mm+)
Thickness = 6 mm

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#18).

PP/K#26. Straight Stem; Medium; Incurvate, Finished Base; Slightly Barbed Shoulder (Plate 4)

Hafting Method: Straight stem

Base Shape: Incurvate, finished, ground base

Blade Shape: Straight

Blade Cross Section: Flattened

Sample Size: 1 (10/40JK3-B)

Size: Width = 26 mm
Length = 36 mm
Thickness = 6 mm

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#18).

PP/K#27. Straight, Long Stem; Medium; Excurvate, Finished Base; Weak Shoulder (Plate 4)

Hafting Method: Straight stem

Base Shape: Excurvate, finished, ground base

Blade Shape: Excurvate

Blade Cross Section: Biconvex

Sample Size: 1 (1/40JK36)

Size: Width = 27 mm
Length = (36 mm+)
Thickness = 8.5 mm

Remarks: On the basis of its general size and elongated, straight stem, this projectile point appears to be a variant of the type Adena and may date to the Woodland period (see "Remarks," PP/K#18).

PP/K#28. Expanded Stem; Medium; Straight, Finished Base; Weak Shoulder (Plate 4)

Hafting Method: Expanded stem

Base Shape: Straight, finished, unground base

Blade Shape: Straight

Blade Cross Section: Biconvex

Sample Size: 2

Size:	Site	Width	Length	Thickness
a)	1/40JK34	25 mm	(52 mm+)	7.5 mm
b)	1/40JK36	27 mm	57 mm	7.5 mm
Mean		26 mm	----	7.5 mm

Remarks: The majority of expanding stem PP/K's may, on the basis of their hafting technique, be grouped into a generalized Late Archaic time frame. Excavations in the Modoc Rock Shelter in Randolph County, (southwestern) Illinois, have noted the occurrence of expanded stem projectile points from about 6,000 B.C. to as late as ca. 1,500 B.C. (Fowler 1959: figs. 9b, 14) and the analysis of artifactual materials from the Eva site in Benton County, (western) Tennessee, has clearly indicated the use of such points by the Three Mile and Big Sandy components which date from ca. 4,000 to 2,000 B.C. and ca. 2,000 to 1,000 B.C., respectively (Lewis and Lewis 1961: fig. 16). This hafting technique, however, should not be thought of as restricted to the Late Archaic period as exemplified by the Alabama types Bakers Creek and Motley, each of which was in use during the first half of the Woodland period (Cambron and Hulse 1969:8, 39).

PP/K#29. Slightly Expanded Stem; Small; Straight (?), Finished Base; Weak Shoulder (Plate 4)

Hafting Method: Expanded stem

Base Shape: Straight (?), finished, ground base

Blade Shape: N/A

Blade Cross Section: Flattened/convex

Sample Size: 1 (1/40JK33)

Size: Width = (19.5 mm+)
Length = (21 mm+)
Thickness = 6 mm

Remarks: On the basis of its hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#28).

PP/K#30. Expanded Stem; Medium; Straight, Finished Base; Strong Shoulder (Plate 4)

Hafting Method: Expanded Stem

Base Shape: Straight, finished, unground base

Blade Shape: N/A

Blade Cross Section: Flattened

Sample Size: 2

Size:	Site	Width	Length	Thickness
a)	1/40JK3-A	(29 mm+)	(24 mm+)	7.5 mm
b)	1/40JK33	(17 mm+)	(23 mm+)	5.5 mm
Mean		----	----	6.5 mm

Remarks: On the basis of their hafting technique, these projectile points probably date to the Late Archaic period (see "Remarks," PP/K#28).

PP/K#31. Expanded Stem; Small; Unfinished Base; Slightly Barbed (Plate 5)

Hafting Method: Expanding stem

Base Shape: Unfinished, unground base

Blade Shape: N/A (probably straight)

Blade Cross Section: Flattened

Sample Size: 1 (1/40JK00)

Size: Width = (17.5 mm+)
Length = (23 mm+)
Thickness = (4 mm+)

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#28).

PP/K#32. Expanded Stem; Medium; Straight, Finished Base; Slightly Barbed (Plate 5)

Hafting Method: Expanded stem

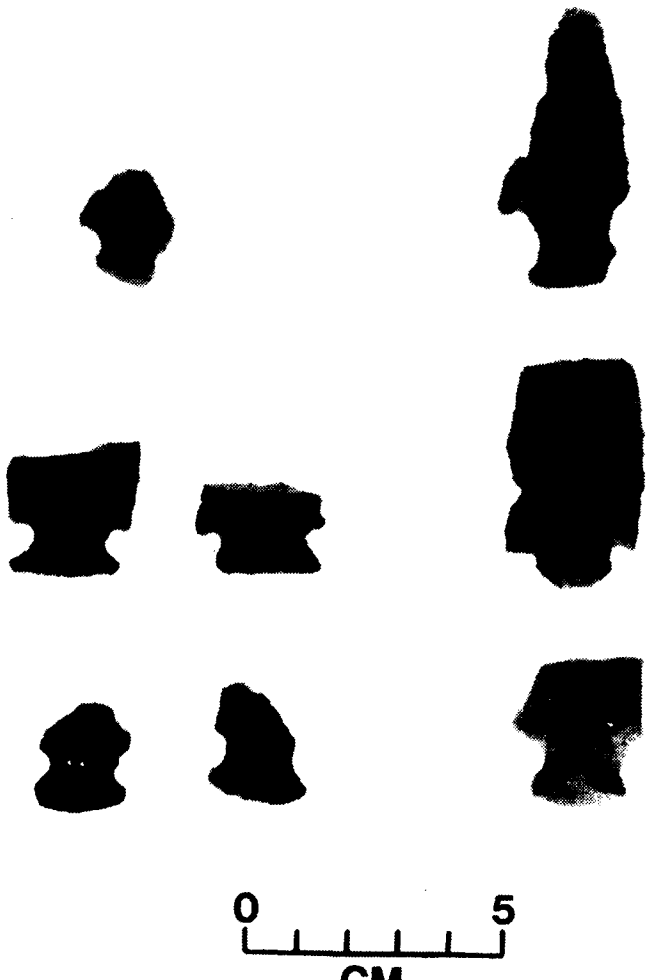


Plate 5. Row 1 (left to right) - PP/K#31; PP/K#32
Row 2 - PP/K#33 a, b; PP/K#34
Row 3 - PP/K#35 a, b; PP/K#36

Base Shape: Straight, finished, ground base

Blade Shape: Straight

Blade Cross Section: Biconvex

Sample Size: 1 (1/40JK3-A)

Size: Width = 27 mm
Length = (56 mm+)
Thickness = 8.5 mm

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#28).

PP/K#33. Broad, Expanded Stem; Medium; Straight, Finished Base; Slightly Barbed (Plate 5)

Hafting Method: Expanding stem

Base Shape: Straight, finished, ground base

Blade Shape: Excurvate

Blade Cross Section: Biconvex

Sample Size: 2

Size:	Site	Width	Length	Thickness
a)	1/40JK3-A	25 mm	(27 mm+)	8 mm
b)	10/40JK3-B	25 mm	(17.5 mm+)	7 mm
Mean		25 mm	----	7.5 mm

Remarks: On the basis of their general size and hafting technique, these projectile points probably date to the Late Archaic period (see "Remarks," PP/K#28).

PP/K#34. Short, Slightly Expanded Stem; Medium; Excurvate, Finished Base; Strong Shoulder (Plate 5)

Hafting Method: Expanded stem

Base Shape: Excurvate, finished, unground base

Blade Shape: Excurvate

Blade Cross Section: Flattened

Sample Size: 1 (10/40JK3-B)

Size: Width = 27 mm
Length = (45 mm+)
Thickness = 8 mm

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#28).

PP/K#35. Expanded Stem; Small; Excurvate, Finished Base; Weak Shoulder (Plate 5)

Hafting Method: Expanded stem

Base Shape: Excurvate, finished, ground base

Blade Shape: N/A (straight?)

Blade Cross Section: Biconvex

Sample Size: 2

Size:	Site	Width	Length	Thickness
a)	1/40JK33	(17.5 mm+)	(21.5 mm+)	(4 mm+)
b)	1/40JK33	(19.5 mm+)	(22 mm+)	(5 mm+)
Mean		----	----	----

Remarks: On the basis of their hafting technique, these projectile points probably date to the Late Archaic period (see "Remarks," PP/K#28).

PP/K#36. Expanded Stem; Medium; Excurvate, Finished Base; Weak Shoulder (Plate 5)

Hafting Method: Expanded stem

Base Shape: Excurvate, finished, ground base

Blade Shape: Straight (?)

Blade Cross Section: Biconvex

Sample Size: 1 (2/40JK35)

Size: Width = 26 mm (reworked blade edge)
Length = (30 mm+)
Thickness = 10.5 mm

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#28).

PP/K#37. Expanded Stem; Medium; Excurvate, Finished Base; Weak Shoulder; Narrow Blade (Plate 6)

Hafting Method: Expanded Stem

Base Shape: Excurvate, finished, ground base

Blade Shape: Straight, narrow blade

Blade Cross Section: Biconvex

Sample Size: 2

Size:	Site	Width	Length	Thickness
a)	1/40JK3-A	22.5 mm	(35 mm+)	9 mm
b)	10/40JK3-B	23 mm	(58 mm+)	8.5 mm
Mean		22.8 mm	----	8.8 mm

Remarks: On the basis of their general size and hafting technique, these projectile points probably date to the Late Archaic period (see "Remarks," PP/K#28).

PP/K#38. Broad, Expanded Stem; Medium; Incurvate, Finished Base; Weak Shoulder (Plate 6)

Hafting Method: Expanding stem

Base Shape: Incurvate, finished, unground base

Blade Shape: Excurvate

Blade Cross Section: Biconvex

Sample Size: 1 (1/40JK3-A)

Size: Width = 24 mm
Length = (44.5 mm+)
Thickness = 8 mm

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#28), although its broad stem does have certain stylistic similarities to the somewhat earlier northern Alabama type Benton Stemmed (cf. Cambron and Hulse 1969:11).

PP/K#39. Broad, Expanded Stem; Medium; Incurvate, Finished Base; Strong Shoulder (Plate 6)

Hafting Method: Expanding stem

Base Shape: Incurvate, finished, ground base

Plate 6: Row 1 (left to right) - PP/K#37 a, b; PP/K#38
Row 2 - PP/K#39; PP/K#40 a, b
Row 3 - PP/K#41; PP/K#42 a, b

Blade Shape: Excurvate

Blade Cross Section: Flattened

Sample Size: 1 (10/40JK3-B)

Size: Width = 30 mm
Length = (51 mm+)
Thickness = 8 mm

Remarks: On the basis of its general size and hafting technique, this projectile point probably dates to the Late Archaic period (see "Remarks," PP/K#28).

PP/K#40. Expanded Stem; Small; Straight, Finished Base; Weak Shoulder (Plate 6)

Hafting Method: Expanded stem

Base Shape: Straight, finished, ground base

Blade Shape: Straight (N=1) or excurvate (N=1)

Blade Cross Section: Flattened (N=1) or biconvex (N=1)

Sample Size: 2

Size:	Site	Width	Length	Thickness
a)	1/40JK33	19 mm	(43.5 mm+)	5 mm*
b)	1/40JK33	18 mm	(42.5 mm+)	7 mm**
Mean		18.5 mm	-----	6 mm

*Straight blade edge; flattened cross section
**Excurvate blade edge; biconvex cross section

Remarks: These expanded stem projectile points are stylistically akin to the northern Alabama type Bakers Creek and probably date from " . . . between 1500 B.C. and early centuries A.D." (Cambron and Hulse 1969:8).

PP/K#41. Expanded Stem; Medium; Straight, Unfinished Base; Weak Shoulder (Plate 6)

Hafting Method: Expanded stem

Base Shape: Straight, unfinished base

Blade Shape: N/A

Blade Cross Section: Biconvex (?)

Sample Size: 1 (4/40JK33)

Size: Width = (18 mm+)
Length = (21.5 mm+)
Thickness = 6.5 mm

Remarks: On the basis of its general size and morphological characteristics, this projectile point probably dates to the Early Woodland period (see "Remarks," PP/K#40).

PP/K#42. Triangular; Medium; Straight, Finished Base (Plate 6)

Hafting Method: Triangular

Base Shape: Straight, finished, ground base

Blade Shape: Straight

Blade Cross Section: Biconvex

Sample Size: 2

Size:	Site	Width	Length	Thickness
a)	1/40JK3-A	19.5 mm	(28.5 mm+)	7 mm
b)	4/40JK33	22 mm	(28 mm+)	7.5 mm
Mean		20.8 mm	-----	7.3 mm

Remarks: Stylistically similar to the type McFarland Triangular reported from the Normandy Reservoir in Coffee County, (south-central) Tennessee, these projectile points probably date to the Middle Woodland period (cf. Faulkner and McCollough 1973: 94-96, plates 28-29).

PP/K#43. Triangular; Medium; Incurvate, Finished Base; Thick Blade (Plate 7)

Hafting Method: Triangular

Base Shape: Incurvate, finished, ground base

Blade Shape: Straight

Blade Cross Section: Median ridged

Sample Size: 1 (1/40JK35)

Size: Width = 24 mm
Length = (39 mm+)
Thickness = 10 mm

Plate 7. Row 1 (left to right) - PP/K#43; PP/K#44
Row 2 - PP/K#45 a, b, c
Row 3 - PP/K#46

Remarks: Similar in many respects to PP/K#42 (see above), this possibly unfinished projectile point probably dates to the Middle Woodland period.

PP/K#44. Triangular; Large; Straight, Finished Base; Thick Blade (Plate 7)

Hafting Method: Triangular

Base Shape: Straight, finished, ground base

Blade Shape: Straight

Blade Cross Section: Thick biconvex

Sample Size: 1 (10/40JK33-B)

Size: Width = 25 mm
Length = (56.5 mm+)
Thickness = 16.5 mm

Remarks: On the basis of its size and triangular configuration, this projectile point/knife may date to the Woodland period (see "Remarks," PP/K#42).

PP/K#45. Triangular; Large; Straight, Finished Base (Plate 7)

Hafting Method: Triangular

Base Shape: Straight, finished, ground (N=2) or unground (N=1) base

Blade Shape: Straight

Blade Cross Section: Flattened

Sample Size 3

Size:	Site	Width	Length	Thickness
a)	1/40JK33	24 mm	(38 mm+)	7.5 mm*
b)	1/40JK33	30 mm	(57 mm+)	10 mm **
c)	4/40JK33	26 mm	(53 mm+)	12 mm ***
Mean		25.2 mm	----	9.8 mm

*Lightly ground base; reworked blade edges
**Heavily ground base
***Unground base

Remarks: These large triangular artifacts may have been utilized as knives. Although definitive comparative data is not available, it is possible they are contemporaneous with PP/K#42 and date to

the Middle Woodland period. It must be noted, however, that this date is entirely speculative.

PP/K#46. Triangular; Large; Straight, Unfinished Base (Plate 7)

Hafting Method: Triangular

Base Shape: Straight, unfinished base (cortex visible along entirity of basal edge).

Blade Shape: Straight

Blade Cross Section: Biconvex

Sample Size: 1 (40JK33)

Size: Width = 27 mm
Length = (30.5 mm+)
Thickness = 8 mm

Remarks: On the basis of its size and triangular configuration, this projectile point/knife may date to the Woodland period (see "Remarks," PP/K#'s 42 and 45).

LITHIC RESOURCES

During the process of analysis, a preliminary effort was made to define the varieties of lithic materials utilized by the pre-historic occupants of the Salt Lick Recreation Area. For the purpose of the present study, all flaked cryptocrystalline materials (with the obvious exceptions of quartz and chalcedony) were placed under the general heading of chert and separated on the basis of color and morphology. As noted by Kellberg, " . . . color . . . is not a diagnostic characteristic of chert" (1963:1). The effects of weather and organic acids are such that the classification of chert on the basis of color alone is not wholly accurate but presently serves as the only means of readily differentiating the raw materials utilized within the reconnaissance area. The following color descriptive "types" were thus recorded:

Cryptocrystalline
- Blue-Gray-Tan
- Fossiliferous Gray
- Gray Banded
- Fossiliferous Pink
- Pink
- Cherty Limestone
- Quartzite
- Chalcedony

Non-cryptocrystalline
Clay (burnt)
Sandstone
Ferrous Sandstone
Greenstone
Shale
Limestone

Several elaborative comments are warranted on certain of the cryptocrystalline categories. The "Blue-grey-tan," "fossiliferous gray" and "gray banded" varieties, on the basis of the author's personal experience, are similar, if not identical, to various lithic materials previously documented in the Normandy Reservoir in Coffee County, (south-central) Tennessee (Faulkner and McCollough 1973:53-55). Within the Salt Lick collections, the fossiliferous designation has been applied to various items exhibiting inclusions ranging from almost microscopic to large and distinctive in size. The coloration of the "pink" category ranged from light to almost brick red in shade. Both the "pink" and "fossiliferous pink" varieties have been interpreted as representing heat treated examples of "blue-gray-tan" and "fossiliferous gray" materials, respectively.

CERAMICS

The prehistoric ceramics recovered from the Salt Lick reconnaissance and survey consisted of a limited number of limestone-tempered body sherds from only two sites. Of this number, a total of eight plain surfaced sherds was recovered from various areas of site 40JK33. In the context of Tennessee Valley archeology, these sherds are representative of the North Alabama type Mulberry Creek Plain (Heimlich 1952:15-17) or the East Tennessee type Hamilton Plain (Lewis and Kneberg 1946:103). It must be recognized that while Hamilton Plain by formal description is distinguishable by the relative coarseness of its tempering (1 mm to 5 mm), the described tempering of Mulberry Creek Plain (microscopic to 2 mm) provides for a very subjective approach in categorizing sherds which are similar in both tempering and coloration. Chronologically the use of Mulberry Creek Plain spans several centuries. The earliest available date for this type has been recorded at the Peter Caye site in Franklin County, (south-central) Tennessee, as 1686 $\pm$ 60 radiocarbon years (A.D. 264) (Hartney 1962:25-26; Faulkner 1967b:20). A later date of 1325 $\pm$ 105 radiocarbon years (A.D. 625) was derived from a pit on a Marion County, (south-central) Tennessee, site (Faulkner and Graham 1966:114) which tentatively establishes the terminal use of this type (see also Faulkner 1968b).

The second limestone-tempered type encountered consisted of the major portion (ca. 5" x 5") of a cord-marked vessel wall recovered from Feature 1 on site 40JK3-A. Removed under the

conditions of salvage archeology, this vessel wall was not restorable. Interestingly, an examination of the resultant sherds indicated that a portion of this vessel had been partially smoothed during manufacture whereas parts of the wall still bore clear cord marking. These sherds are undoubtedly representative of the North Alabama type Flint River Cord Marked (Heimlich 1952: 19) or the East Tennessee types Hamilton Cord Marked or Candy Creek Cord Marked (Lewis and Kneberg 1946:102-103). Presumably they are approximately contemporaneous with the above discussed plain sherds.

In addition to these sherds a local informant reported finding several plain surfaced, shell-tempered sherds on site 40JK37. As these were not available for inspection, no further comment may be offered beyond noting they are representative of Mississippian period occupation.

SECTION V

SITE DESCRIPTIONS

Survey Methodology

The nine (9) sites reported in the present study were located as a result of independent fieldwork, conversations with area collectors, and a review of all available pertinent literature. The general productiveness of each approach follows this same order of presentation. In the field, an initial brief period of shovel testing (primarily on the crests of the low knolls scattered about the densely ground-covered survey area) and the examination of small erosional gullys was followed by an abbreviated testing program. This portion of the project resulted in single 5' x 5' test units being dug on five (5) of the area's known sites: specifically 40JK3-A, 40JK32, 40JK33, 40JK35, and 40JK36.

Although these test pits were instrumental in initially locating sites 40JK35 and 40JK36, time did not allow for the complete processing of the data so collected and forced plans for salvage excavations under the contingencies of then on-going construction activities. This less than perfect arrangement, on the basis of subjective impressions and barely visible "dark spots" on the ground, selected sites 40JK3-A and 40JK33 as the best choices for productive archaeology under the circumstances. Because of this approach, data relevant to test pit excavation has been presented under a separate subheading within the textual commentary and following remarks on surface collected materials (which frequently accounted for the bulk of the artifactual materials collected for any one site) and "formally" excavated materials from exposed features, etc. (see Figure 1).

SITE 40JK3-A

UTM Zone 16: Easting 609150, Northing 4019480
Elevation: 525' AMSL
Physiography: Terrace
Floral Cover: Heavy pasture
Quadrangle: USGS 7.5' Granville, Tennessee (1968 edition)

Site Location: Site is located on southern terminus and eastern slope of a marked rise above the adjacent floodplain; 1,050 feet east of north of original confluence of Salt Lick Creek and right (north) bank of Cumberland River; 5,300 feet east of south of Smith Memorial Church; 2,575 feet southeast of BM 510; and 4,475 feet northeast of BM 556.

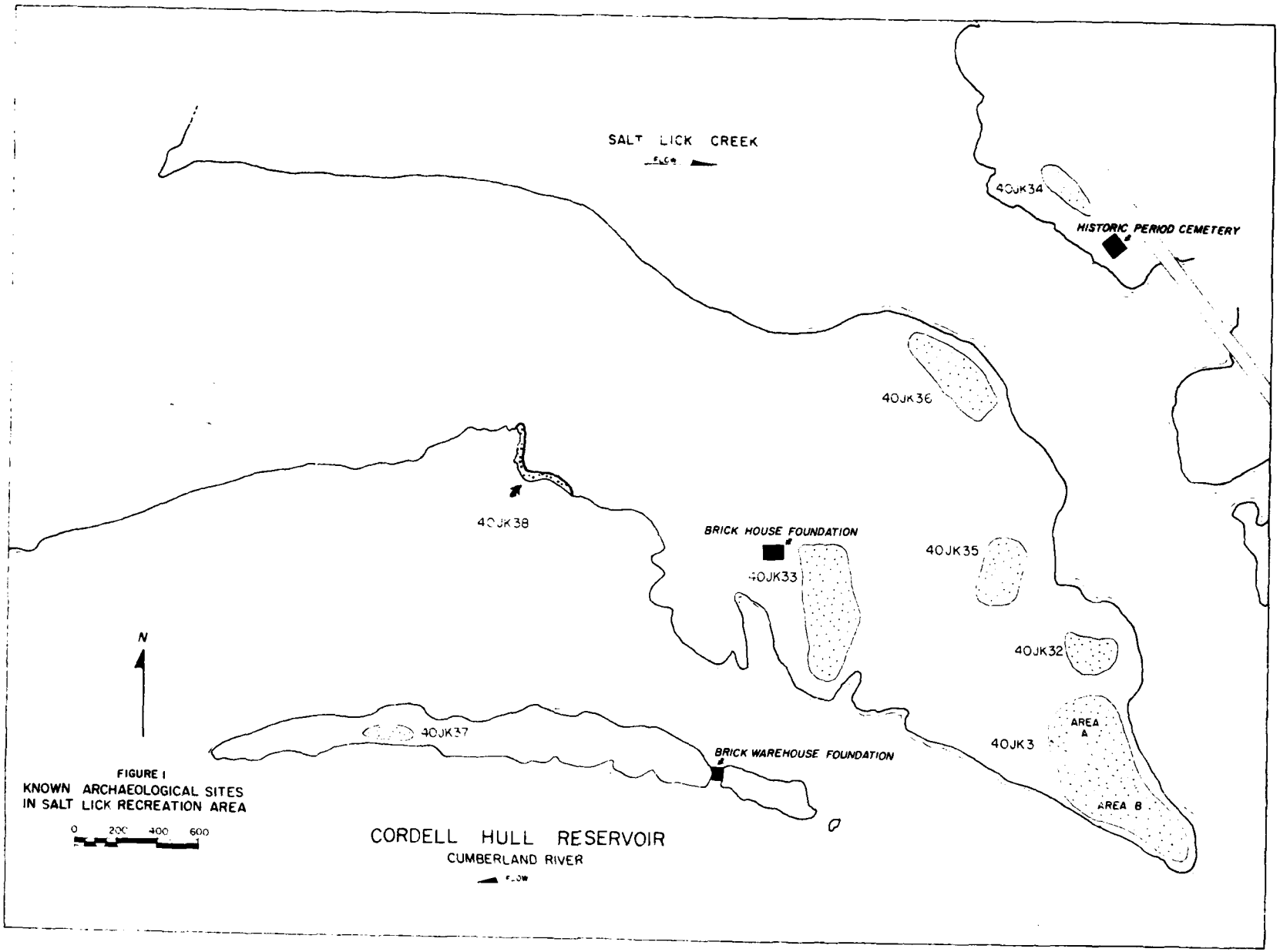


FIGURE 1
KNOWN ARCHAEOLOGICAL SITES
IN SALT LICK RECREATION AREA

Site Dimensions: This site is an irregular oval measuring ca. 375 feet north-south by ca. 200 feet east-west. Estimated surface area is 58,905 square feet; 6,545 square yards; or 5,472.3 square meters.

Reference: The only known previous mention of this site in the available literature occured in Dan F. Morse's initial archaeological reconnaissance in the early 1960's of the "future" Cordell Hull Lake. As described at that time:

> This site is located at River Mile 337.5, slightly downstream from the mouth of Salt Lick Creek on a bluff about 1000' from the river. Elevation is 500' - 520' and the site is about 1000' in diameter. Smiths collection contains artifacts from several Archaic stages. On the other side of Salt Lick Creek is another similar bluff concentration [40JK34?]. This site is not recommended for excavation because of its shallowness, multi-componency, and light productiveness (Morse n.d.b:7).

Because of the rather large area noted for this site on site survey maps maintained by the Frank H. McClung Museum, University of Tennessee, Knoxville, artifact producing areas on the first terrace and the nearby floodplain were further delineated by the designations 40JK3-A and 40JK3-B, respectively, and thereafter treated as two discrete sites.

Surface Collection and Excavation Strategy: The excavation strategy outlined in the Corps of Engineers scope-of-service specified the excavation of an area 175 feet in length by 18 feet in width extending from road survey stakes (Roadway Stations) 64 + 75 to 66 + 50 (Plate 8; Figure 2). Plowzone material was cut back from the exposed road surface created by construction activities to an irregular line extending from survey stake to survey stake. An examination of the profiled road cut (Figure 3) revealed no evidence of stratigraphy in this easternmost portion of the site. A sampling of artifactual material lying in the road bed and recovered from the resultant profile back dirt comprised the majority of the surface collection (Table 2). This general assemblage produced projectile points dated to the Early Archaic, Middle Archaic, Late Archaic, and Woodland periods.

A total of three (3) features was observed in the exposed road bed. Feature 1 was a rather circular fire basin with a north-south diameter of 2.6 feet, an east-west diameter of 2.9 feet, and a maximum depth of 0.8 feet (Plate 9; Figure 4). Feature fill consisted of dark brown mottled soil in a yellowish-brown matrix. The fill was somewhat consolidated while the matrix was very consolidated. Artifactually the most productive feature encountered on the site (Table 3), materials recovered included a complete greenstone celt, a portion of a limestone-tempered cord-marked vessel, identifiable floral remains (see Appendix E),

Plate 8. 40JK3-A: General View of all Excavated Units (Facing North)

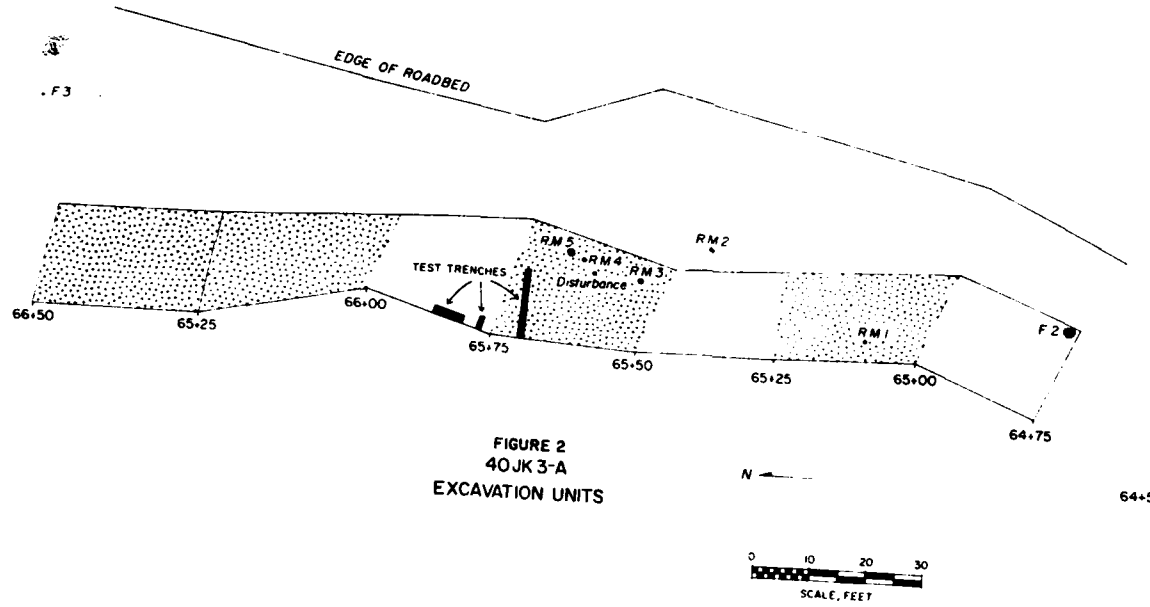


FIGURE 2
40JK3-A
EXCAVATION UNITS

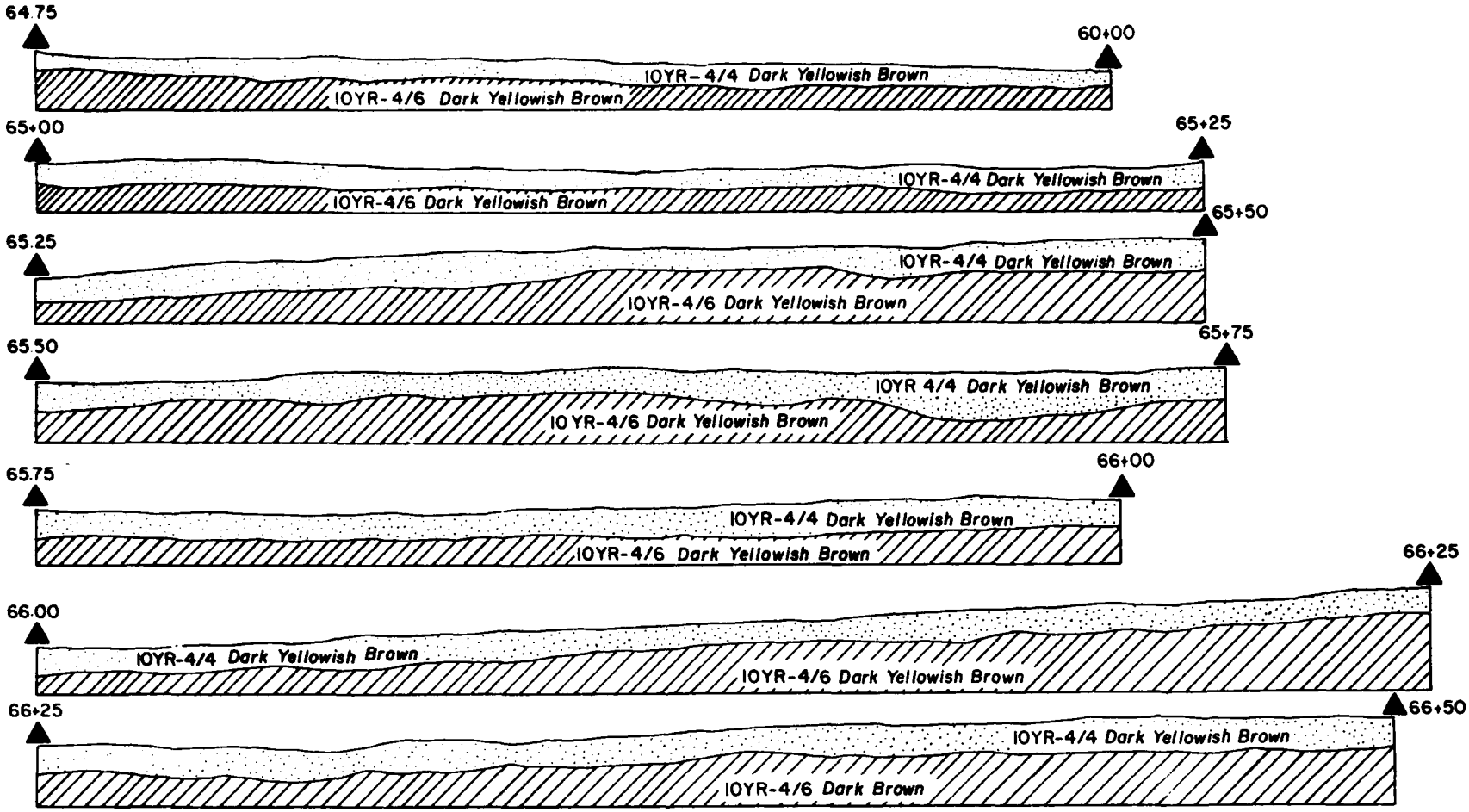


FIGURE 3: 40JK3-A SOIL PROFILES

0 1 2 4
SCALE, FEET

Table 2: 40JK3-A Surface Collection ("North Knoll"; 1/40JK3-A)

	Blue/Gray/ Tan	Fossil Gray	Gray Banded	Fossil Pink	Pink	Quartzite	Chalcedony	Sandstone	Ferrous Sandstone	N=	%=
Indeterminate											
Primary Decortication	15	2	1	-	1	1	-	-	-	20	4.4
Secondary Decortication	96	23	20	-	1	2	1	-	-	143	31.5
Flat	13	2	2	1	-	-	-	-	-	18	4.0
Bifacial Thinning	20	-	13	-	-	-	-	-	-	33	7.3
Blade/Blade-like	3	-	-	-	-	-	-	-	-	3	0.7
Unident./Broken	53	3	6	1	2	-	-	-	-	65	14.3
Utilized Flake	14	2	5	-	-	-	-	-	-	21	4.6
Flake End Scraper	6	1	2	-	1	-	-	-	-	10	2.2
Flake Side Scraper	16	3	5	-	-	-	-	-	-	24	5.3
Spokeshave	1	1	2	-	-	-	-	-	-	4	0.9
Core	17	13	7	-	-	1	-	-	-	38	8.4
Pitted Hammerstone	-	-	-	-	-	-	-	1	-	1	0.2
Fire-cracked Rock	-	-	-	-	-	-	-	-	4	4	0.9
Amorphous Thick Biface	2	15	-	-	-	-	-	-	-	17	3.7
Blank/Roughout	3	4	1	-	-	-	-	-	-	8	1.8
Bifacial Fragment	-	3	1	-	-	-	-	-	-	4	0.9
PP/K#1	9	10	2	-	1	-	-	-	-	22	4.8
PP/K#2	-	5	-	-	-	-	-	-	-	5	1.1
Early Archaic											
PP/K#6	1	-	-	-	-	-	-	-	-	1	0.2
PP/K#10	-	1	-	-	-	-	-	-	-	1	0.2
PP/K#12	1	-	-	-	-	-	-	-	-	1	0.2
PP/K#13	1	-	-	-	-	-	-	-	-	1	0.2

Table 2 (cont.): 40JK3-A Surface Collection

	Blue/Gray/ Tan	Fossil Gray	Gray Banded	Fossil Pink	Pink	Quartzite	Chalcedony	Sandstone	Ferrous Sandstone	N=	%
Early Archaic (cont.)											
PP/K#14	-	1	-	-	-	-	-	-	-	1	0.2
Middle Archaic											
PP/K#7	-	-	-	1	-	-	-	-	-	1	0.2
Late Archaic											
PP/K#21	-	1	-	-	-	-	-	-	-	1	0.2
PP/K#24	-	1	-	-	-	-	-	-	-	1	0.2
PP/K#25	-	1	-	-	-	-	-	-	-	1	0.2
PP/K#30	-	1	-	-	-	-	-	-	-	1	0.2
PP/K#32	-	1	-	-	-	-	-	-	-	1	0.2
PP/K#33	-	1	-	-	-	-	-	-	-	1	0.2
PP/K#37	1	-	-	-	-	-	-	-	-	1	0.2
PP/K#38	-	-	1	-	-	-	-	-	-	1	0.2
Woodland											
PP/K#42	-	1	-	-	-	-	-	-	-	1	0.2
N=	272	96	68	3	6	4	1	1	4	455	-
%=	59.8	21.1	14.9	0.7	1.3	0.9	0.2	0.2	0.9	-	100.0

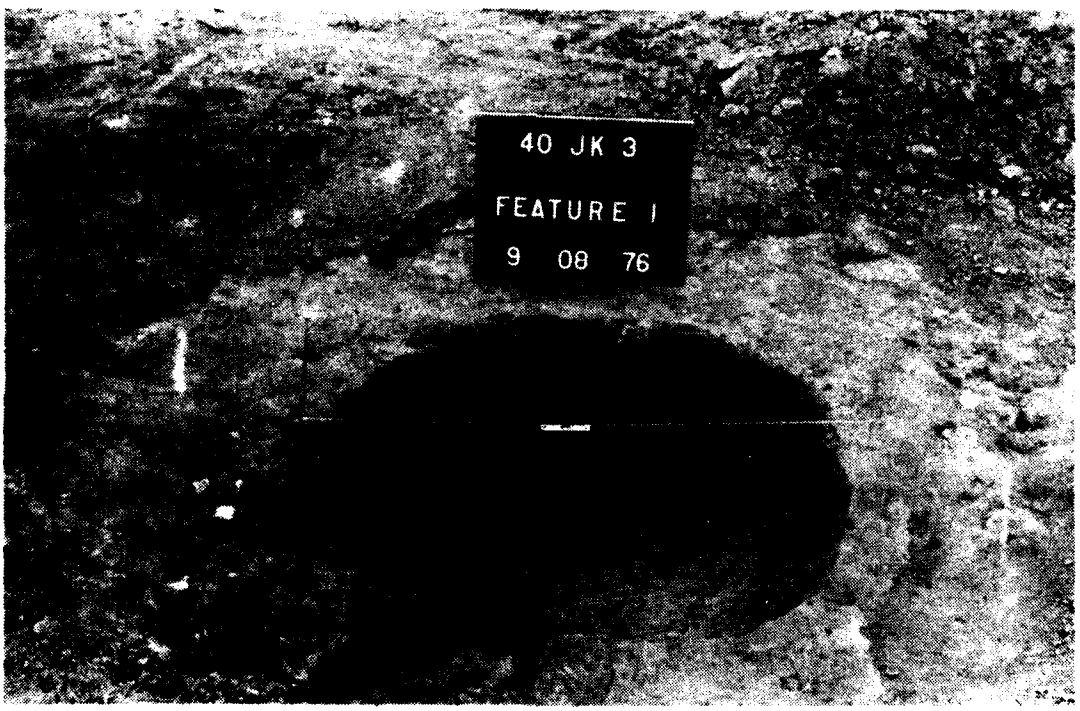
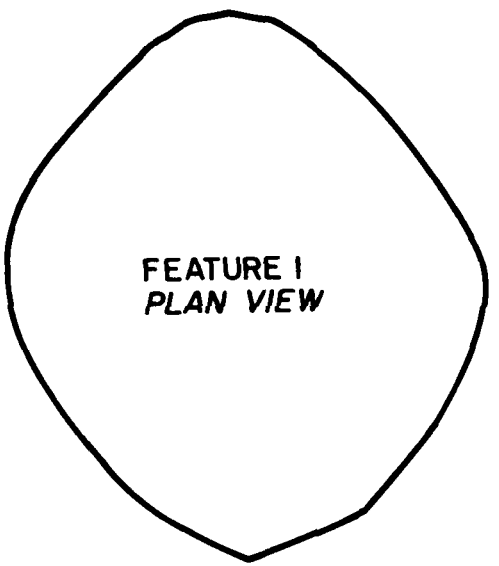


Plate 9. 40JK3-A: Feature 1

FIGURE 4
40JK3-A
FEATURE 1
PLAN VIEW AND PROFILE

0 1
SCALE, FEET



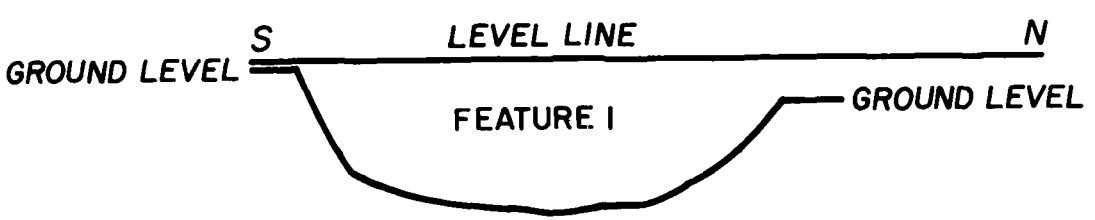


Table 3: 40JK3-A Feature 1* (4/40JK3-A)

Indeterminate	Blue/Gray/ Tan	Fossil Gray	Fossil Pink	Quartzite	Sandstone	Greenstone	N=	%=
Primary Decortication	1	-	-	-	-	-	1	2.2
Secondary Decortication	1	17	1	1	-	-	20	42.7
Flat	-	2	-	-	-	-	2	4.2
Bifacial Thinning	-	3	-	-	-	-	3	6.5
Blade/Blade-like	-	1	-	-	-	-	1	2.1
Unident./Broken	-	4	-	-	-	-	4	8.5
Utilized Flake	-	4	-	-	-	-	4	8.5
Flake Side Scraper	1	-	-	-	-	-	1	2.1
Burned Sandstone	-	-	-	-	4	-	4	8.5
Unworked Pebble	-	-	-	1	1	-	2	4.2
Fire-cracked Rock	-	-	-	-	1	-	1	2.1
Core	-	2	-	-	-	-	2	4.2
Celt	-	-	-	-	-	1	1	2.1
Crinoid Stem	1	-	-	-	-	-	1	2.1
N=	4	33	1	2	6	1	47	-
%=	8.5	70.3	2.1	4.2	12.8	2.1	-	100.0

*Tabulations exclusive of ceramics.

and a large block of wood charcoal suitable for C-14 dating. It is unfortunate that the two (2) dates derived from the same parent mass were so divergent. Dates were received of 1980 ± 125 radiocarbon years (30 B.C.) from the University of Georgia (UGA-1632) and 1205 ± 155 radiocarbon years (745 A.D.) from Geochron Laboratories (GX-4860). On the basis of data presented above (see sub-section on "Ceramic" typology), either of these dates may be correct.

With a north-south diameter of 1.8 feet, an east-west diameter of 1.6 feet and a maximum depth of about 0.65 foot, the fill of Feature 2 (Plate 10; Figure 5), a fire pit, consisted of a medium brown mottled soil in a matrix of brownish-tan earth. The fill was of medium consolidation while the matrix was very consolidated. The artifactual assemblage within the feature consisted primarily of debitage with a few flake tools, fire-cracked rocks and lumps of burned clay (Table 4); some identifiable floral remains were also recovered (see Appendix E).

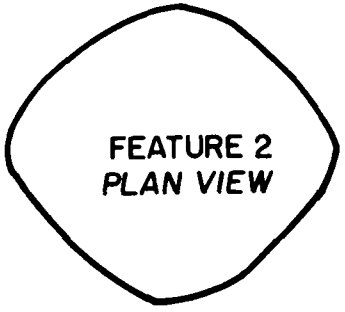
Feature 3 exhibited a north-south diameter of 2.69 feet, an east-west diameter of 2.65 feet, and a maximum depth of 0.73 foot; of some interest in this feature were a series of burned limestone slabs lining a portion of the fire pit wall. Field observations recorded this feature as consisting " . . . of a circular bowl shaped depression. The feature fill was a dark brown (slightly mottled fill) in a medium brown matrix. A large amount of limestone was present (some burnt) and the limestone was along the walls and floor of the pit" (Plates 11, 12; Figure 6). Artifactual materials per se recovered from this feature consisted of a limited number of worked and unworked flakes (Table 5). A small quantity of identifiable floral remains was also recovered (see Appendix E).

Within the confines of the marked excavation units, a total of five (5) root molds was encountered. These varied from 0.75 foot to 1.50 feet east-west diameter, to .75 foot to 1.40 feet north-south diameter and ranged from 0.70 foot to 1.75 feet plus in depth. Several flakes and flake tools were removed from Root Molds 2 and 3 (Tables 6 and 7, respectively). Additionally, a single worked flat flake of blue/gray/tan chert was removed from Root Mold 4.

A single 5 foot by 5 foot test unit was excavated prior to the initiation of salvage activities. Situated near the southern end of the site, the upper 0.75 foot (9 inches) of the unit was designated as Level 1 (Table 8), whereas the lower 0.5 inch to 5.5 inches of the same light brown humus above the brighter colored sub-soil was termed Level 2 (Table 9). Despite the quantity of debitage recovered by means of shovel sorting the back dirt, no features were observed in this test unit.

Plate 10. 40JK3-A: Feature 2

FIGURE 5
40JK3-A
FEATURE 2
PLAN VIEW AND PROFILE
0 1
SCALE, FEET



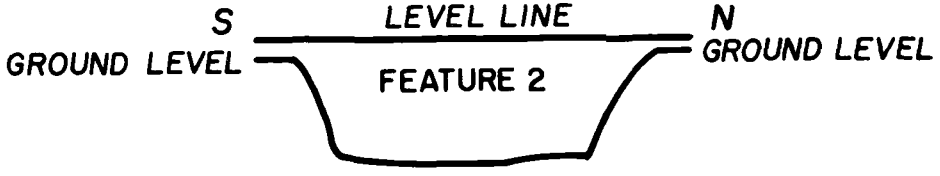


Table 4: 40JK3-A Feature 2 (5/40JK3-A)

Indeterminate	Blue/Gray/ Tan	Fossil Gray	Fossil Pink	Cherty Limestone	Clay	N=	%=
Secondary Decortication	3	-	-	-	-	3	13.6
Flat	-	-	1	-	-	1	4.6
Bifacial Thinning	1	1	1	-	-	3	13.6
Unident./Broken	-	2	1	-	-	3	13.6
Utilized Flake	-	1	-	-	-	1	4.6
Flake Side Scraper	-	1	1	-	-	2	9.1
Fire-cracked Rock	-	-	-	3	-	3	13.6
Burned Clay	-	-	-	-	4	4	18.2
PP/K#1	1	1	-	-	-	2	9.1
N=	5	6	4	3	4	22	-
%=	22.7	27.3	18.2	13.6	18.2	-	100.0

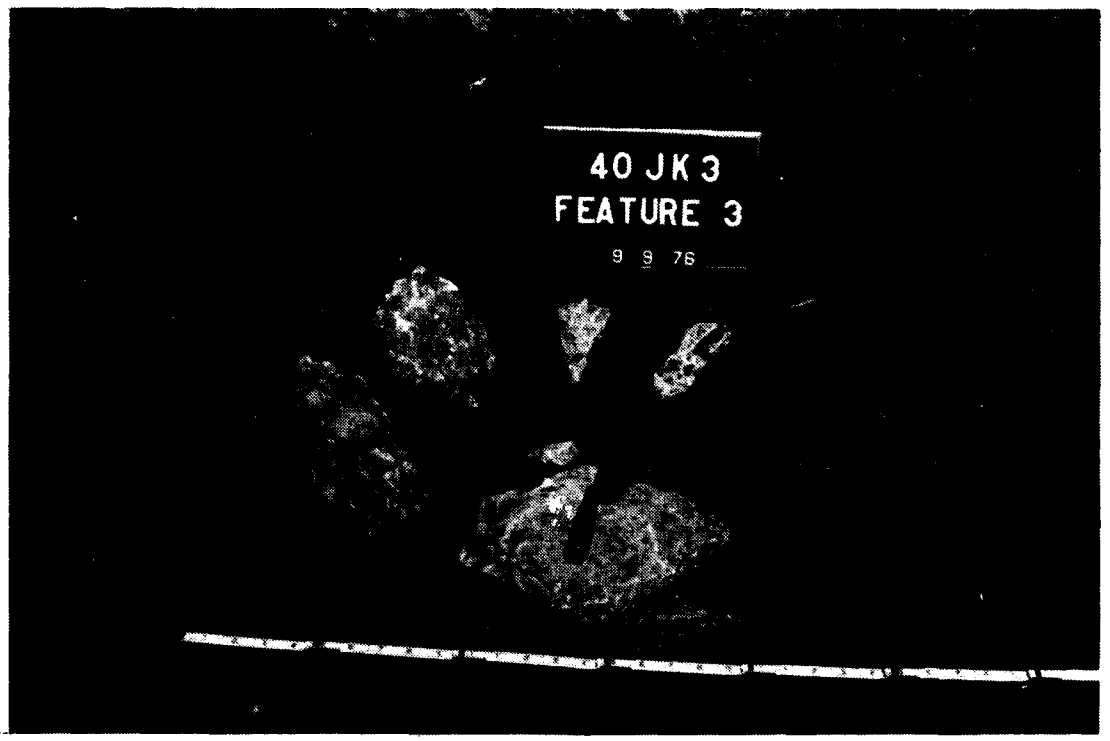


Plate 11. 40JK3-A: Feature 3 with Limestone Slabs *in situ*.

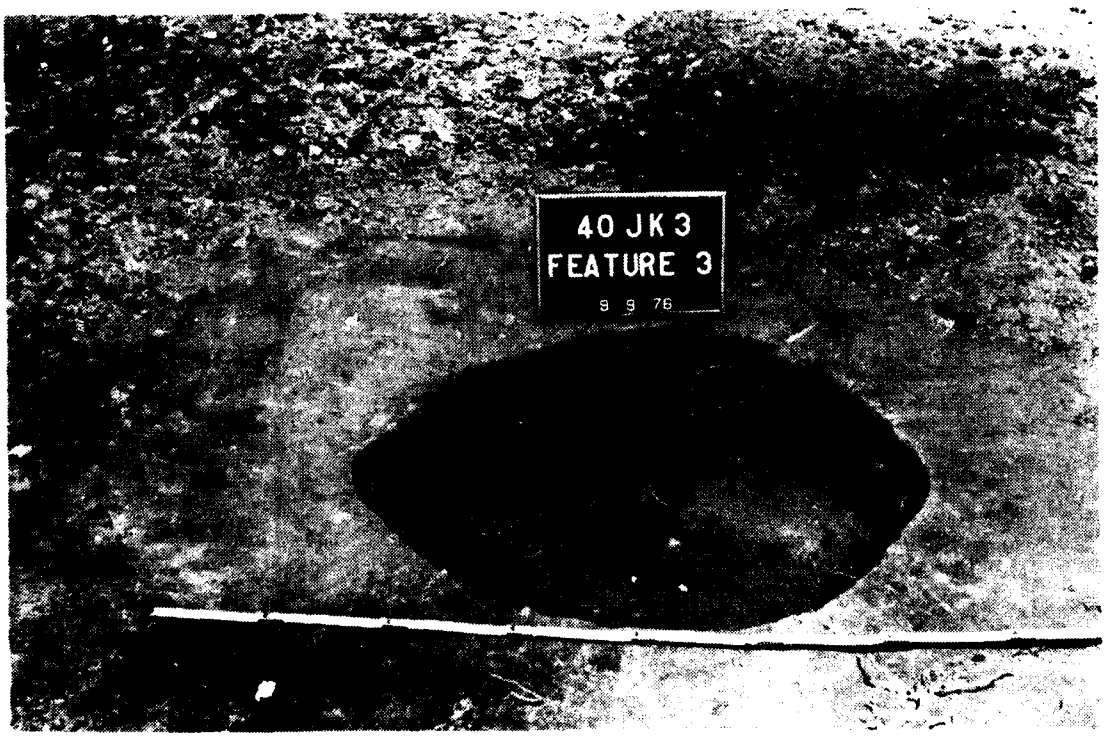
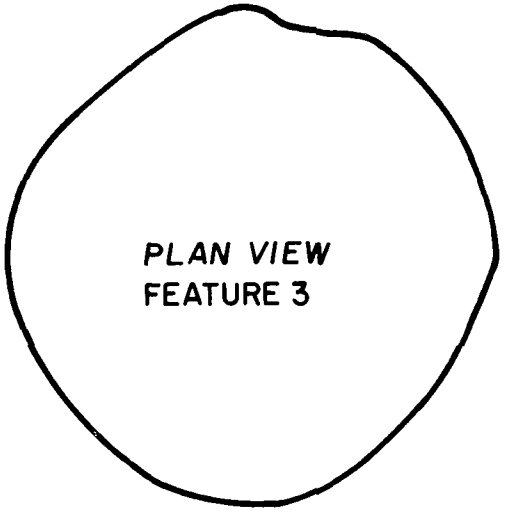


Plate 12. 40JK3-A: Feature 3 with Limestone Slabs Removed.

FIGURE 6
40JK3-A
FEATURE 3
PLAN VIEW AND PROFILE
0 1
SCALE, FEET



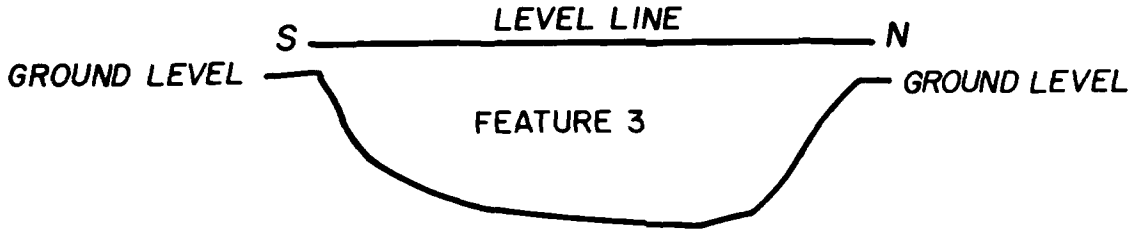


Table 5: 40JK3-A Feature 3 (6/40JK3-A)

	Blue/Gray/ Tan	Fossil Gray	N=	%=
Indeterminate				
Secondary Decortication	1	-	1	12.5
Flat	-	1	1	12.5
Unident./Broken	-	2	2	25.0
Flake Side Scraper	-	1	1	12.5
Utilized Flake	-	3	3	37.5
N=	1	7	8	-
%=	12.5	87.5	-	100.0

Table 6: 40JK3-A Root Mold #2 (7/40JK3-A)

	Fossil Gray	Fossil Pink	Quartzite	N=	%=
Indeterminate					
Secondary Decortication	-	1	2	3	37.5
Flat	1	-	-	1	12.5
Unident./Broken	2	1	-	3	37.5
PP/K#2	1	-	-	1	12.5
N=	4	2	2	8	-
%=	50.0	25.0	25.0	-	100.0

Table 7: 40JK3-A Root Mold #3 (8/40JK3-A)

Indeterminate	Blue/Gray/ Tan	Fossil Gray	Fossil Pink	Pink	Chalcedony	N=	%=
Secondary Decortication	-	2	-	2	1	5	33.3
Flat	-	1	1	-	-	2	13.3
Unident./Broken	1	4	-	1	-	6	40.0
Flake Side Scraper	-	1	-	-	-	1	6.7
Graver	-	1	-	-	-	1	6.7
N=	1	9	1	3	1	15	-
%=	6.7	60.0	6.7	20.0	6.6	-	100.0

Table 8: 40JK3-A Test Pit 1, Level 1 (plow zone) (2/40JK3-A)

Indeterminate	Blue/Gray/ Tan	Fossil Gray	Gray Banded	Fossil Pink	Pink	Quartzite	Sandstone	N=	%=
Primary Decortication	8	-	2	-	-	-	-	10	2.3
Secondary Decortication	76	8	2	-	2	1	-	89	20.3
Flat	15	4	-	-	-	-	-	19	4.3
Bifacial Thinning	54	4	5	-	1	-	-	64	14.6
Unident./Broken	172	54	-	4	5	-	-	235	53.5
Utilized Flake	4	-	-	-	-	-	-	4	0.9
Flake End Scraper	-	1	1	-	-	-	-	2	0.5
Flake Side Scraper	2	1	-	-	-	-	-	3	0.7
Spokeshave	1	-	-	-	-	-	-	1	0.2
Core	3	-	-	-	-	-	-	3	0.7
Fire Cracked Rock	-	-	-	-	-	-	9	9	2.0
N=	335	72	10	4	8	1	9	439	-
%=	76.4	16.4	2.3	0.9	1.8	0.2	2.0	-	100.0

Table 9: 40JK3-A Test Pit 1, Level 2 (3/40JK3-A)

Indeterminate	Blue/Gray/ Tan	Fossil Gray	Gray Banded	Fossil Pink	Pink	Quartzite	Chalcedony	N=	%=
Primary Decortication	6	-	-	-	-	-	-	6	2.5
Secondary Decortication	40	5	-	-	1	2	-	48	19.7
Flat	3	1	-	-	-	-	-	4	1.7
Bifacial Thinning	22	3	-	-	2	-	-	27	11.1
Unident./Broken	115	24	-	1	-	1	1	142	58.4
Utilized Flake	4	-	-	-	-	-	-	4	1.7
Flake Side Scraper	4	2	1	-	-	-	-	7	2.9
Core	1	-	-	-	-	-	-	1	0.4
PP/K#1	-	1	1	-	1	-	-	3	1.2
PP/K#2	1	-	-	-	-	-	-	1	0.4
N=	196	36	2	1	4	3	1	243	-
%=	80.7	14.8	0.8	0.4	1.7	1.2	0.4	-	100.0

SITE 40JK3-B

UTM Zone 16: Easting 609120, Northing 4019400
Elevation: 510' AMSL
Physiography: Floodplain
Floral Cover: Heavy pasture
Quadrangle: USGS 7.5' Granville, Tennessee (1968 edition)

Site Location: Site is located at eastern terminus of floodplain adjacent to right (north) bank of Cumberland River; 650 feet northwest of original right bank of Salt Lick Creek; 750 feet north of original confluence of Salt Lick Creek and right (north) bank of Cumberland River; 5,575 feet east of south of Smith Memorial Church; 2,700 feet southeast of BM 510; and 4,275 feet northeast of BM 556.

Site Dimensions: This site is an elongated oval measuring ca. 200 feet northeast-southwest by ca. 850 feet northwest-southeast. Estimated surface area is 133,518 square feet; 14,835.3 square yards; or 12,403.8 square meters.

Reference: Morse (n.d.b:7)

Surface Collection: The only materials recovered from this site consisted of surface collected materials following the bulldozing of a road bed. These artifacts are enumerated in Table 10. With the exception of a small number of Late Archaic projectile points, no datable items were encountered. An examination of the cleared road bed revealed no fire pits or other features.

SITE 40JK32

UTM Zone 16: Easting 609120, Northing 4019700
Elevation: 525' AMSL
Physiography: Terrace
Floral Cover: Heavy pasture
Quadrangle: USGS 7.5' Granville, Tennessee (1968 edition)

Site Location: Site is located on crest of low but distinct rise; 725 feet due west of original right bank of Salt Lick Creek; 1,825 feet north of original confluence of Salt Lick Creek and right (north) bank of Cumberland River; 4,575 feet east of south of Smith Memorial Church; 2,050 feet east-southeast of BM 510; and 4,775 feet northeast of BM 556.

Site Dimensions: This site is ovoid in shape and measures ca. 400 feet north-south by ca. 300 feet east-west. Estimated surface area is 94,248 square feet; 10,472 square yards; or 8755.6 square meters

Table 10: 40JK3-B Surface Collection (10/40JK3-B)

	Blue/Gray/ Tan	Fossil Gray	Gray Banded	Pink	N=	%=
Indeterminate						
Primary Decortication	-	-	-	1	1	1.4
Secondary Decortication	13	8	1	-	22	31.6
Flat	1	-	-	-	1	1.4
Bifacial Thinning	1	-	-	-	1	1.4
Unident./Broken	13	1	1	2	17	24.3
Core	1	-	2	-	3	4.3
Utilized Flake	3	-	2	-	5	7.2
Flake End Scraper	1	-	-	-	1	1.4
Flake Side Scraper	7	1	1	-	9	12.9
Spokeshave	-	1	-	-	1	1.4
Amorphous Thick Biface	1	-	-	-	1	1.4
Blank/Roughout	1	1	-	-	2	2.9
PP/K#1	-	1	-	-	1	1.4
Late Archaic						
PP/K#26	-	-	1	-	1	1.4
PP/K#33	-	1	-	-	1	1.4
PP/K#34	1	-	-	-	1	1.4
PP/K#37	1	-	-	-	1	1.4
PP/K#39	1	-	-	-	1	1.4
N=	45	14	8	3	70	-
%=	64.3	20.0	11.4	4.3	-	100.0

Table 11: 40JK32 Surface Collection (1/40JK32)

	Blue/Gray/ Tan	Fossil Gray	Gray Banded	Fossil Pink	Pink	N=	%=
Indeterminate							
Secondary Decortication	1	9	-	1	-	11	18.0
Flat	-	3	1	-	-	4	6.6
Bifacial Thinning	1	4	-	4	-	9	14.8
Unident./Broken	5	22	1	1	-	29	47.5
Utilized Flake	1	2	-	-	1	4	6.6
Flake End Scraper	-	-	1	-	-	1	1.6
Flake Side Scraper	1	1	-	-	-	2	3.3
Amorphous Thick Biface	-	1	-	-	-	1	1.6
N=	9	42	3	6	1	61	-
%=	14.8	68.9	4.9	9.8	1.6	-	100.0

Table 12: 40JK32 Test Pit 1, Level 1 (Plow Zone) (2/40JK32)

Indeterminate	Blue/Gray/Tan	Fossil Gray	Gray Banded	Fossil Pink	Pink	Quartzite	Sandstone	Shale	N=	%=
Primary Decortication	2	-	-	-	-	-	-	-	2	0.9
Secondary Decortication	43	10	-	-	1	1	-	-	55	23.9
Flat	10	2	1	-	-	1	-	-	14	6.1
Bifacial Thinning	29	7	-	-	1	-	-	-	37	16.2
Unident./Broken	69	10	1	-	2	1	-	-	83	36.1
Utilized Flakes	9	4	4	1	-	-	-	-	18	7.8
Flake End Scrapers	2	1	1	-	-	-	-	-	4	1.7
Flake Side Scrapers	4	3	-	-	-	-	-	-	7	3.0
Cores	2	1	-	-	-	-	-	-	3	1.3
Shale Fragments	-	-	-	-	-	-	-	6	6	2.6
Fire-cracked Rock	-	-	-	-	-	-	1	-	1	0.4
N=	170	38	7	1	4	3	1	6	230	-
%=	74.0	16.5	3.0	0.4	1.8	1.3	0.4	2.6	-	100.0

Reference: Previously unpublished data.

Surface Collection: Artifacts were recovered from a bulldozed road bed cutting across the eastern edge of site 40JK32; none of these items were culturally or chronologically diagnostic (Table 11). No features were observed in the cleared road bed.

Test Pit: A single 5 feet by 5 feet test pit was excavated prior to construction activities. The plow zone strata (Level 1) varied from 6 inches (0.5 foot) to 8 inches (0.67 foot) in thickness and lay directly above a lighter colored sub-soil. No features were observed in the floor of the test pit. Artifactual material recovered from this unit are enumerated in Table 12.

SITE 40JK33

UTM Zone 16: Easting 608660, Northing 4020130 (NW corner)
Easting 608810, Northing 4020080 (NE corner)
Easting 607600, Northing 4019920 (SW corner)
Easting 607750, Northing 4019850 (SE corner)
Elevation: 520' AMSL
Physiography: Terrace/floodplain
Floral Cover: Heavy pasture
Quadrangle: USGS 7.5' Granville, Tennessee (1968 edition)

Site Location: The approximate center of this rather large, flat site is located 1,300 feet northeast of the original right (north) bank of the Cumberland River; 2,925 feet northwest of the original confluence of Salt Lick Creek and the Cumberland River; 3,550 feet west of south of Smith Memorial Church; 375 feet southeast of BM 510; and 4,450 feet northeast of BM 556.

Site Dimensions: This site is roughly rectangular in shape and measures ca. 750 feet northeast-southwest by ca. 575 feet northwest-southeast. Estimated surface area is 431,250 square feet; 47,916.7 square yards; or 40,063.1 square meters.

Reference: Previously unpublished data.

Surface Collection and Excavation Strategy: Rather large surface collections were gathered from the southern portion of the site, across which a road bed had been bulldozed (Table 13) and the northern extremity of the site in the area of a proposed water treatment facility (Table 14). Each of these sub-areas yielded projectile points dated to the Early Archaic, Middle Archaic, Late Archaic, and Woodland periods.

Table 13: 40JK33 South Road Cut Surface Collection (1/40JK33)

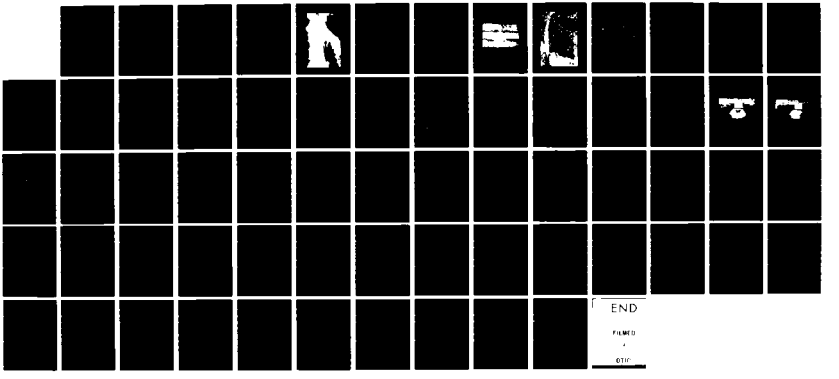
	Blue/Gray/ Tan	Fossil Gray	Gray Banded	Pink	Quartzite	N=	%=
Indeterminate							
Secondary Decortication	27	6	9	2	-	44	22.9
Flat	1	-	-	-	-	1	0.5
Bifacial Thinning	8	-	1	-	-	11	5.8
Unident./Broken	8	2	5	1	-	16	8.4
Utilized Flake	9	3	1	-	-	13	6.7
Flake End Scraper	5	1	-	-	-	6	3.1
Flake Side Scraper	6	3	3	-	-	12	6.3
Spokeshave	5	3	-	1	-	9	4.7
Spokeshave/ Utilized Flake	-	1	-	-	-	1	0.5
Spokeshave/ Flake Side Scraper	1	-	-	-	-	1	0.5
Graver	-	1	-	-	-	1	0.5
Core	6	4	3	-	-	13	6.7
Core Scraper	3	1	-	-	-	4	2.1
Core Spokeshave	1	-	-	-	-	1	0.5
Worked Nodule	2	2	1	-	-	5	2.7
Geode Fragment	-	-	-	-	1	1	0.5
Amorphous Thick Biface	-	7	1	-	-	8	4.1
Blank/Roughout	1	7	-	-	-	8	4.1
PP/K#1	6	12	2	-	-	20	10.4
PP/K#2	1	1	-	-	-	2	1.0

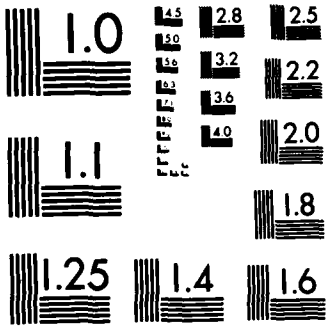
Table 13 (cont.): 40JK33 South Road Cut Surface Collection

	Blue/Gray/ Tan	Fossil Gray	Gray Banded	Pink	Quartzite	N=	%=
Early Archaic							
PP/K#10	1	-	-	-	-	1	0.5
PP/K#15	-	1	-	-	-	1	0.5
Early /Middle Archaic							
PP/K#4	-	-	1	-	-	1	0.5
Middle Archaic							
PP/K#9	-	1	-	-	-	1	0.5
Late Archaic							
PP/K#3	1	-	-	-	-	1	0.5
PP/K#19	-	1	-	-	-	1	0.5
PP/K#20	-	1	-	-	-	1	0.5
PP/K#23	-	1	-	-	-	1	0.5
PP/K#29	-	1	-	-	-	1	0.5
PP/K#30	-	1	-	-	-	1	0.5
PP/K#35	-	2	-	-	-	2	1.0
Woodland							
PP/K#40	-	2	-	-	-	2	1.0
PP/K#45	1	1	-	-	-	2	1.0
N=	93	68	27	4	1	193	-
%=	48.2	35.2	14.0	2.1	0.5	-	100.0

AD-A123 668 ARCHAEOLOGICAL RECONNAISSANCE SURVEY AND SALVAGE EXCAVATION IN THE SALT LICK RECREATION AREA(U) TENNESSEE UNIV KNOXVILLE DEPT OF ANTHROPOLOGY D B BALL 2/2

UNCLASSIFIED APR 79 DACW62-76-M-3194 F/G 5/6 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

Table 14: 40JK33 North Surface Collection (10/40JK33)

	Blue/Gray/ Tan	Fossil Gray	Gray Banded	Fossil Pink	Pink	Quartzite	Shale	N=	%=
Indeterminate									
Primary Decortication	9	1	-	-	1	-	-	11	1.1
Secondary Decortication	190	75	12	3	-	11	-	291	30.0
Flat	26	7	1	-	-	1	-	35	3.6
Bifacial Thinning	108	32	5	1	1	-	-	147	15.2
Blade/Blade-like	1	-	-	-	-	-	-	1	0.1
Unident./Broken	241	87	7	5	6	4	-	350	36.2
Utilized Flake	34	7	-	-	-	-	-	41	4.2
Flake End Scraper	1	2	1	-	-	-	-	4	0.4
Flake Side Scraper	21	5	-	-	-	-	-	26	2.7
Spokeshave	9	2	-	-	-	-	-	11	1.1
Graver	1	-	-	-	-	-	-	1	0.1
Core	9	2	7	-	-	-	-	18	1.9
Core Scraper	3	1	2	-	-	-	-	6	0.6
Hammerstone	1	-	-	-	-	-	-	1	0.1
Unworked Shale Fragment	-	-	-	-	-	-	1	1	0.1
Amorphous Thick Biface	1	2	-	-	-	-	-	3	0.3
Blank/Roughout	1	2	-	-	-	-	-	3	0.3
PP/K#1	3	8	2	1	-	-	-	14	1.4

Table 14 (cont.): 40JK33 North Surface Collection

	Blue/Gray/ Tan	Fossil Gray	Gray Banded	Fossil Pink	Pink	Quartzite	Shale	N=	%=
Early Archaic									
PP/K#11	1	-	-	-	-	-	-	1	0.1
Middle Archaic									
PP/K#7	-	1	-	-	-	-	-	1	0.1
PP/K#8	-	1	-	-	-	-	-	1	0.1
Late Archaic									
PP/K#17	-	1	-	-	-	-	-	1	0.1
Woodland									
PP/K#44	-	1	-	-	-	-	-	1	0.1
PP/K#46	-	1	-	-	-	-	-	1	0.1
N=	660	238	37	10	8	16	1	970	-
%=	68.1	24.6	3.8	1.0	0.8	1.6	0.1	-	100.0

As the road cut along the southern portion of the site had revealed a singularly distinct and darkly colored midden/plow zone stratum immediately above a lighter colored sub-soil, the excavation strategy called for in the Corps of Engineers scope-of-service was to profile and clear an area 100 feet in length by 18 feet in width from road survey stakes (Roadway Stations) 47+00 to 48+00 (Plate 13; Figure 7). Profile data is presented in Figure 8; a close-up photograph of the darkened plow zone level appears in Plate 14.

Within the confines of the specified excavation units, a total of 13 root molds and two animal burrows was encounted. The root molds varied in size from 0.3 foot to over 2.5 feet in diameter; the animal burrows ranged from 0.35 foot to 0.65 foot in diameter. No cultural materials were covered from these totally non-productive areas and little may be gained by describing them further; no features were observed.

Near the northern edge of the site in an area badly disturbed by construction activity, a circular series of post molds denoting Structure 1 was observed (Plate 15; Figure 9). Dimentional data for each post mold is presented in Table 15. This pattern bears some resemblance to a possible Woodland period structure excavated on site 40CF32A in the Normandy Reservoir, Coffee County, (south central) Tennessee (cf. Faulkner and McCollough, eds., 1977: plate xv). A sample of hickory charcoal (see Appendix E) retrieved from Post Mold 1 was C-14 dated to 1275 ± 140 radiocarbon years (675 A.D.) by Geochron Laboratories (GX-4859). It is suggested that this is an acceptable date by virtue of a single limestone-tempered plain surfaced sherd also found in the fill of Post Mold 1. Additionally, it may be noted, similar undecorated ceramics were found in surface context in the vicinity of Structure 1 (2 sherds) and near the southern ("road cut") portion of the site (2 sherds).

Test Pit: A single test unit measuring 5 feet by 5 feet was opened, prior to the investigation of construction activities, northwest of the road cut excavations. Although well within the portion of the site delineated by the darker, organically enriched midden/plow zone, Level 1 (plow zone) of this unit exhibited a thickness varying from 0.83 foot to 0.92 foot, or an average depth of 0.87 foot. Artifactual material from this strata is enumerated in Table 16. Interestingly, the rather sizable assemblage from this single level yielded three (3) projectile points dated to the Woodland period as well as three (3) limestone-tempered plain surfaced sherds.

A total of four (4) "features" was excavated in the floor of this test unit. Of these, a small portion of a shallow but artifactually non-productive fire pit designated as Feature 1 probably qualified as the only legitimate feature. The fill in this feature contained only small specks of charcoal. Three (3)

Plate 13. 40JK33: General View of all Excavated Units (Facing Northeast)

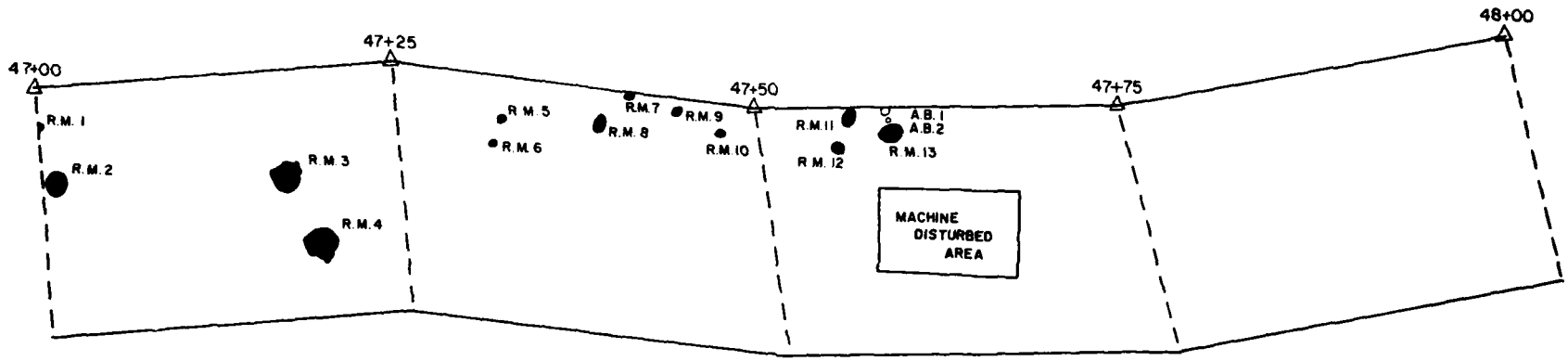


FIGURE 7
40JK33
EXCAVATION UNITS

R M = ROOT MOLD
A B = ANIMAL BURROW

SCALE
5 0 10
FEET

N

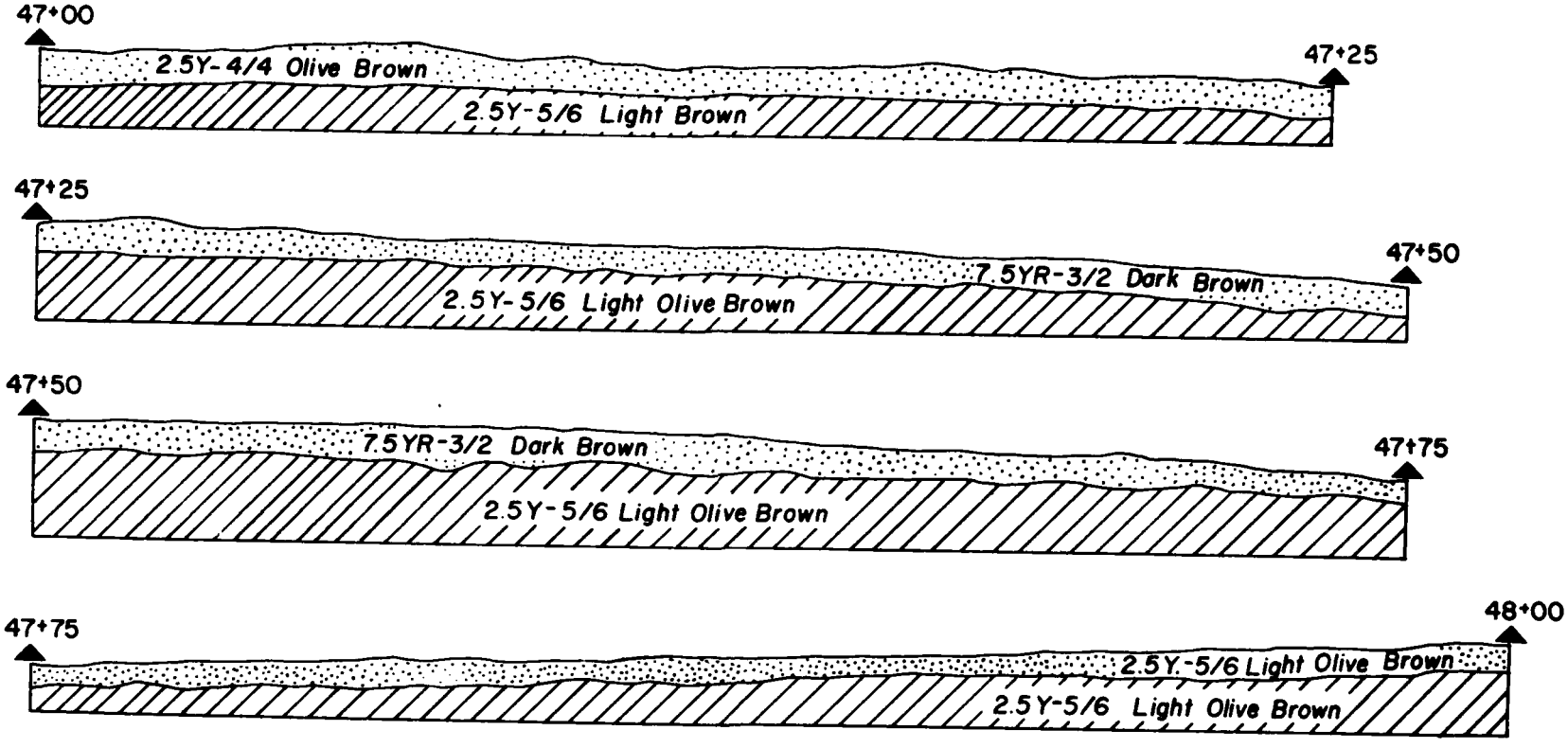


FIGURE 8
40JK33
SOIL PROFILES

Plate 14. 40JK33: Close-up of 47 + 50 to 47 + 75, Road Cut Profile.

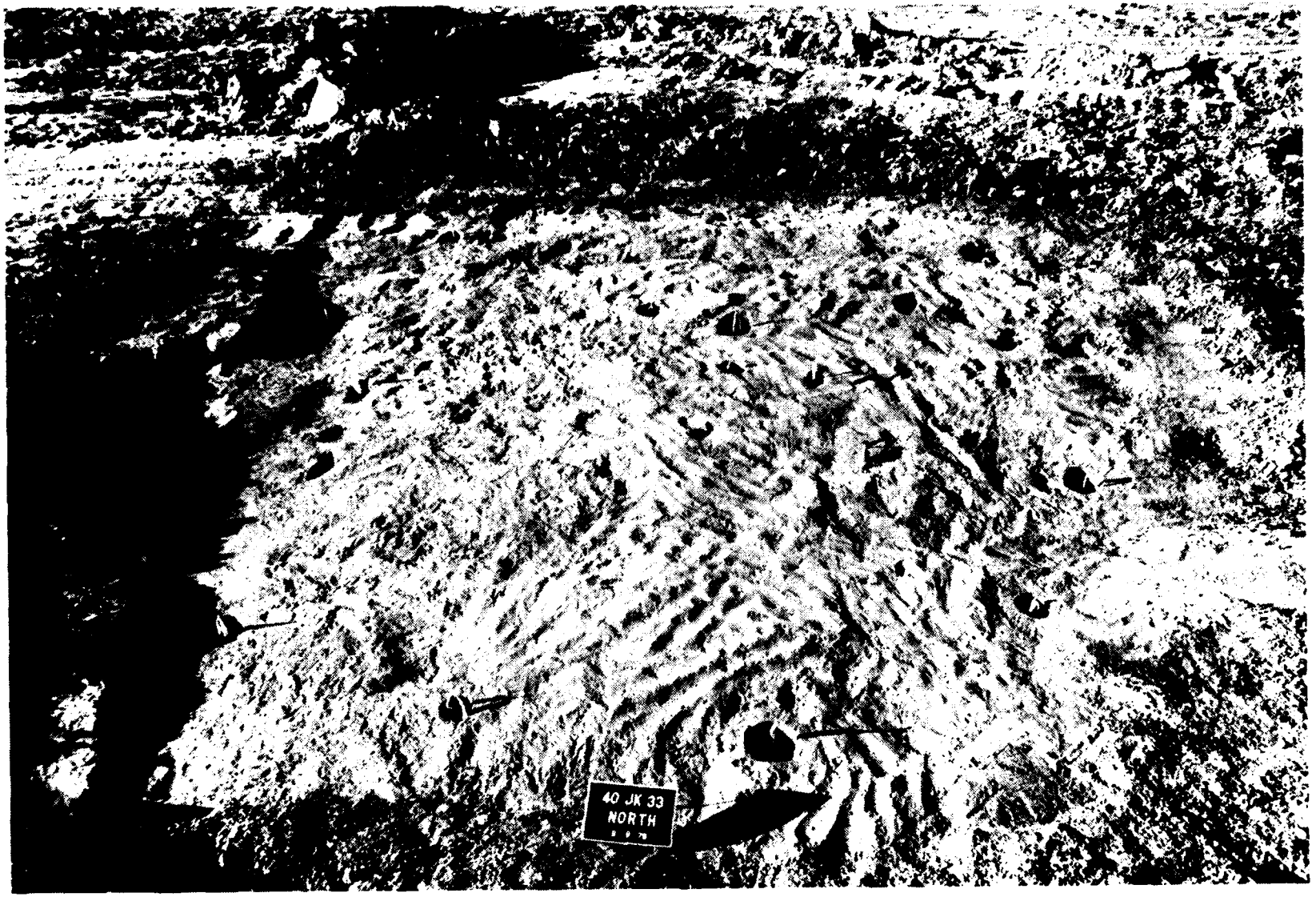


Plate 15. 40JK33: Structure 1 (Facing North)

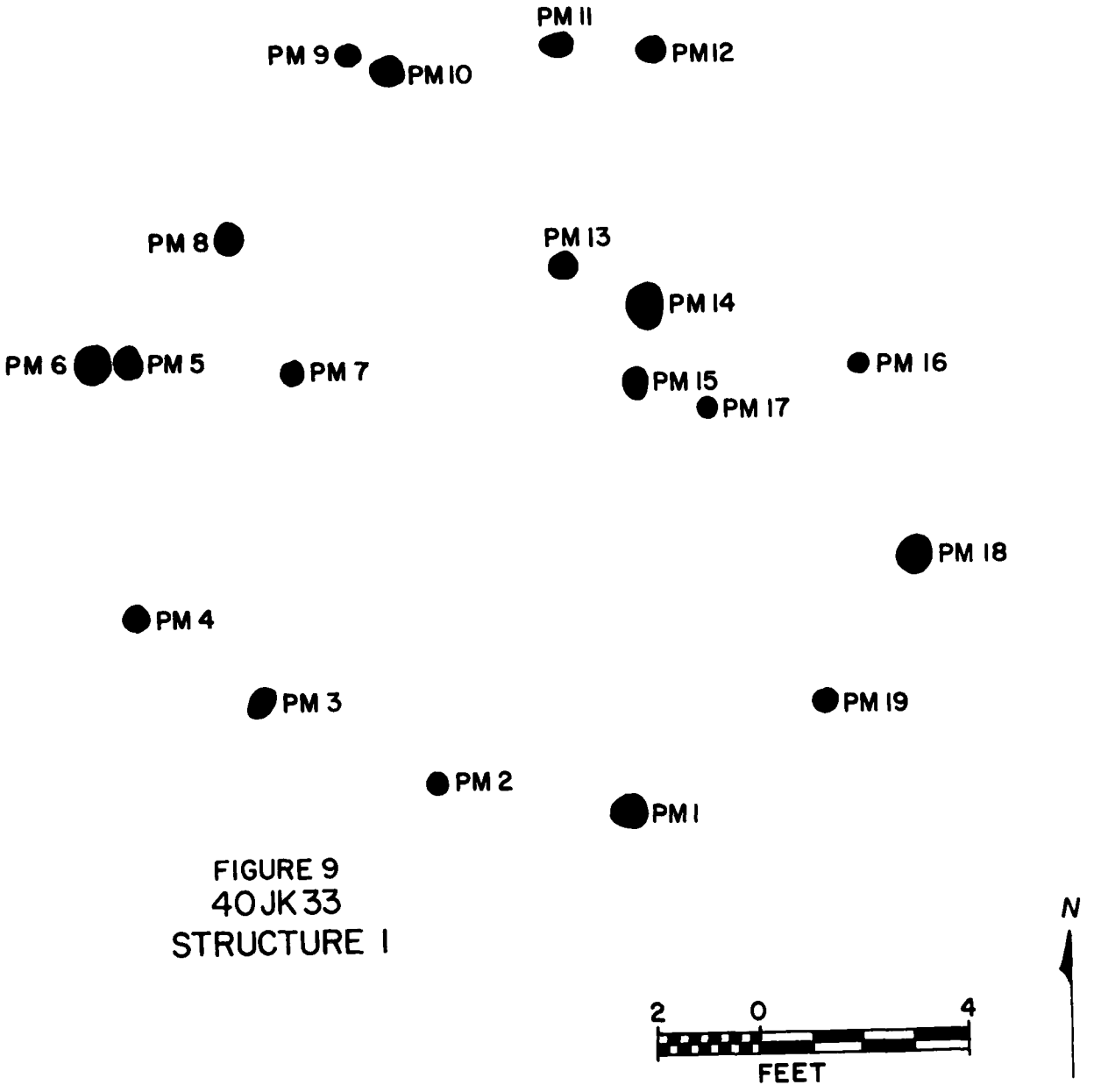


FIGURE 9
40JK33
STRUCTURE 1

Table 15: 40JK33 Structure 1 Post Mold Data

P.M.#	North-South Dimension	East-West Dimension	Depth
1	.60'	.65'	.30'
2	.40'	.38'	.34'+
3	.50	.50	.29'
4	.45'	.47'	.22'+
5	.55'	.56'	.28'+
6	.69'	.69'	.30'+
7	.40'	.43'	.30'+
8	.57'	.48'	.25'+
9	.44'	.50'	.31'+
10	.56'	.65'	.22'+
11	.50'	.64'	.33'+
12	.47'	.50'	.33'+
13	.48'	.49'	.36'+
14	.85'	.65'	.32'+
15	.48'	.51'	.66'
16	.70'	.62'	.29'
17	.35'	.35'	.23'
18	.65'	.60'	.27'
19	.46'	.46'	.50'+

Table 16: 40JK33 Test Pit 1, Level 1 (Plow Zone) (4/40JK33)

	Blue/Gray/ Tan	Fossil Gray	Gray Banded	Fossil Pink	Pink	Shale	Limestone	N=	%=
Indeterminate									
Primary Decortication	5	-	-	-	-	-	-	5	1.2
Secondary Decortication	79	24	11	-	6	-	-	120	29.8
Flat	20	7	5	-	1	-	-	33	8.2
Bifacial Thinning	33	7	1	-	-	-	-	41	10.1
Unident./Broken	74	19	7	1	3	-	-	104	25.8
Utilized Flake	23	8	-	1	-	-	-	32	7.9
Flake End Scraper	6	1	-	-	-	-	-	7	1.7
Flake Side Scraper	8	7	3	-	-	-	-	18	4.4
Spokeshave	2	-	-	-	-	-	-	2	0.5
Core	3	1	-	-	-	-	-	4	1.0
Core Scraper	2	1	-	-	-	-	-	3	0.7
Burnt Limestone	-	-	-	-	-	-	19	19	4.7
Shale Fragments	-	-	-	-	-	3	-	3	0.7
Crinoid Stem	1	-	-	-	-	-	-	1	0.3
Blank/Roughout	-	1	-	-	-	-	-	1	0.3
PP/K#1	1	3	2	-	-	-	-	6	1.5
PP/K#2	-	1	-	-	-	-	-	1	0.3
Woodland									
PP/K#41	-	1	-	-	-	-	-	1	0.3
PP/K#42	1	-	-	-	-	-	-	1	0.3
PP/K#45	1	-	-	-	-	-	-	1	0.3
N=	259	81	29	2	10	3	19	403	-
%=	64.3	20.1	7.2	0.5	2.5	0.7	4.7	-	100.0

Table 17: 40JK33 Test Pit 1, Feature 2 (7/40JK33)

	Blue/Gray/ Tan	Fossil Gray	Limestone	Shale	N=	%=
Indeterminate						
Secondary Decortication	-	1	-	-	1	25.0
Bifacial Thinning	1	-	-	-	1	25.0
Burned Limestone	-	-	1	-	1	25.0
Unworked Shale Fragment	-	-	-	1	1	25.0
N=	1	1	1	1	4	-
%=	25.0	25.0	25.0	25.0	-	100.0

Table 18: 40JK33 Test Pit 1, Feature 3 (8/40JK33)

	Fossil Gray	Gray Banded	Fossil Pink	Limestone	N=	%=
Indeterminate						
Secondary Decortication	1	1	1	-	3	50.0
Bifacial Thinning	-	-	1	-	1	16.7
Unident./Broken	-	1	-	-	1	16.7
Burned Limestone	-	-	-	1	1	16.6
N=	1	2	2	1	6	-
%=	16.7	33.3	33.3	16.7	-	100.0

Table 19: 40JK33 Test Pit 1, Feature 4 (9/40JK33)

	Fossil Gray	Pink	Limestone	N=	%=
Indeterminate					
Secondary Decortication	1	-	-	1	11.2
Bifacial Thinning	1	-	-	1	11.2
Unident./Broken	2	1	-	3	33.2
Burned Limestone	-	-	4	4	44.4
N=	4	1	4	9	-
%=	44.4	11.2	44.4	-	100.0

additional "features" (most likely root molds on the basis of their irregular dimensions) each yielded small quantities of non-diagnostic artifacts (see Tables 17-19). In addition to the tabulated materials removed from "Feature 3", a total of 6 pounds 7 ounces (ca. 3438 grams) of burned limestone (N=75 to 100 chunks) was also extracted from this probable root mold. It should also be noted that several unidentifiable faunal remains were recovered from the plow zone level of this test pit and from surface context elsewhere on the site (see Appendix D).

SITE 40JK34

UTM Zone 16: Easting 609290, Northing 4020400
Elevation: 515' AMSL
Physiography: Terrace
Floral Cover: Heavy pasture
Quadrangle: USGS 7.5' Granville, Tennessee (1968 edition)

Site Location: Site is located on relatively flat terrain 375 feet northwest of unnamed, historic period cemetery; 650 feet northeast of original left (east) bank of Salt Lick Creek; 3,975 feet east of north of original confluence of Salt Lick Creek and right (north) bank of Cumberland River; 2,650 feet south-southeast of Smith Memorial Church; 2,500 feet northeast of BM 510; and 5,725 feet southeast of BM 514.

Site Dimensions: This site is an elongated oval measuring ca. 150 feet northeast-southwest by 500 feet northwest-southeast. Estimated surface area is 58,905 square feet; 6545 square yards; or 5,472.3 square meters.

Reference: Previously unpublished data; Amick (1978).

Surface Collection: At the time this site was initially located, ground cover consisted of a maze of weeds and broken corn stalks rendering ground visibility to, at best, 10% of the site. The small quantity of surface collected artifacts, which included two (2) projectile points/knives dated to the Late Archaic period, is enumerated in Table 20.

A controlled surface collection and limited testing program undertaken by archaeologists affiliated with the U.S. Army Corps of Engineers, Nashville District, has delineated strong Late Archaic and Woodland components on this site and possible traces of Paleo-Indian and Early Archaic occupation (Amick 1978).

SITE 40JK35

UTM Zone 16: Easting 609060, Northing 4019890
Elevation: 525' AMSL
Physiography: Terrace
Floral Cover: Heavy pasture

Table 20: 40JK34 Surface Collection (1/40JK34)

	Blue/Gray/ Tan	Fossil Gray	Fossil Pink	Gray Banded	Pink	N=	%=
Indeterminate							
Secondary Decortication	1	5	-	-	-	6	13.0
Flat	1	2	-	-	-	3	6.5
Bifacial Thinning	2	3	-	-	-	5	10.8
Unident./Broken	6	11	-	-	-	17	36.9
Utilized	2	2	1	-	-	5	10.9
Spokeshave	-	1	-	-	-	1	2.2
Discoidal Scraper	-	1	-	-	-	1	2.2
Core	-	3	-	1	-	3	8.7
Amorphous Thick Biface	-	1	-	-	-	1	2.2
PP/K#2	-	-	-	-	1	1	2.2
Late Archaic							
PP/K#16	-	1	-	-	-	1	2.2
PP/K#28	-	1	-	-	-	1	2.2
N=	12	31	1	1	1	46	-
%=	26.0	67.4	2.2	2.2	2.2	-	100.0

Quadrangle: USGS 7.5' Granville, Tennessee (1968 edition)

Site Location: Site is located on crest of low but distinct rise situated immediately northwest of historic period cattle pond; 825 feet due west of original right (west) bank of Salt Lick Creek; 2,350 feet north of original confluence of Salt Lick Creek and right (north) bank of Cumberland River; 3,900 feet east of south of Smith Memorial Church; 1,550 feet east-southeast of BM 510; and 5,000 feet northeast of BM 556.

Site Dimensions: This site is ovoid in shape and measures ca. 425 feet north-south by 300 feet east-west. Estimated surface area is 100,138.5 square feet; 11,126.5 square yards; or 9,302.9 square meters.

Reference: Previously unpublished data.

Surface Collection: Although a small quantity of debitage was gathered from several erosional cuts on the eastern edge of the site, the majority of the surface collection enumerated in Table 21 was recovered following the removal of virtually all of the site's plow zone strata by construction activities. As a result of this exposure, a minimum of eight to ten features (probably fire pits) were observed by the author. When this condition was brought to the attention of the Corps of Engineers construction supervisor, arrangements were made to re-deposit topsoil over the surface of the site and thereby avoid additional loss of archaeological data. Single examples of Middle Archaic and Woodland projectile points were recorded in the salvaged surface collection.

Test Pit: A single 5 feet by 5 feet test pit was excavated near the topographical center of the site prior to the commencement of construction related activities. The plow zone strata of this unit varied from a minimum depth of 5.0 inches to a maximum depth of 6.5 inches. Although the majority of the artifacts recovered from this portion of the test unit were non-diagnostic, a single Late Archaic projectile point/knife was observed (Table 22). Sterile soil was encountered immediately below the plow zone.

Portions of three features were observed in the floor of the test unit (Figure 10). Feature 1, a bowl-shaped fire pit extending to a maximum depth of 10.5 inches below ground surface, yielded a single unworked fragment of shale and several specks of charcoal. Feature 2, also a bowl-shaped fire pit which extended a maximum of 10.5 inches below ground level, yielded several specks of charcoal, lumps of burned clay, and non-diagnostic debitage (Table 23). Exhibiting a comparable bowl-shaped configuration and attaining a maximum depth of 10.0 inches below ground surface, Feature 3 yielded only darkened soil and no artifactual materials.

Table 21: 40JK35 Surface Collection (1/40JK35)

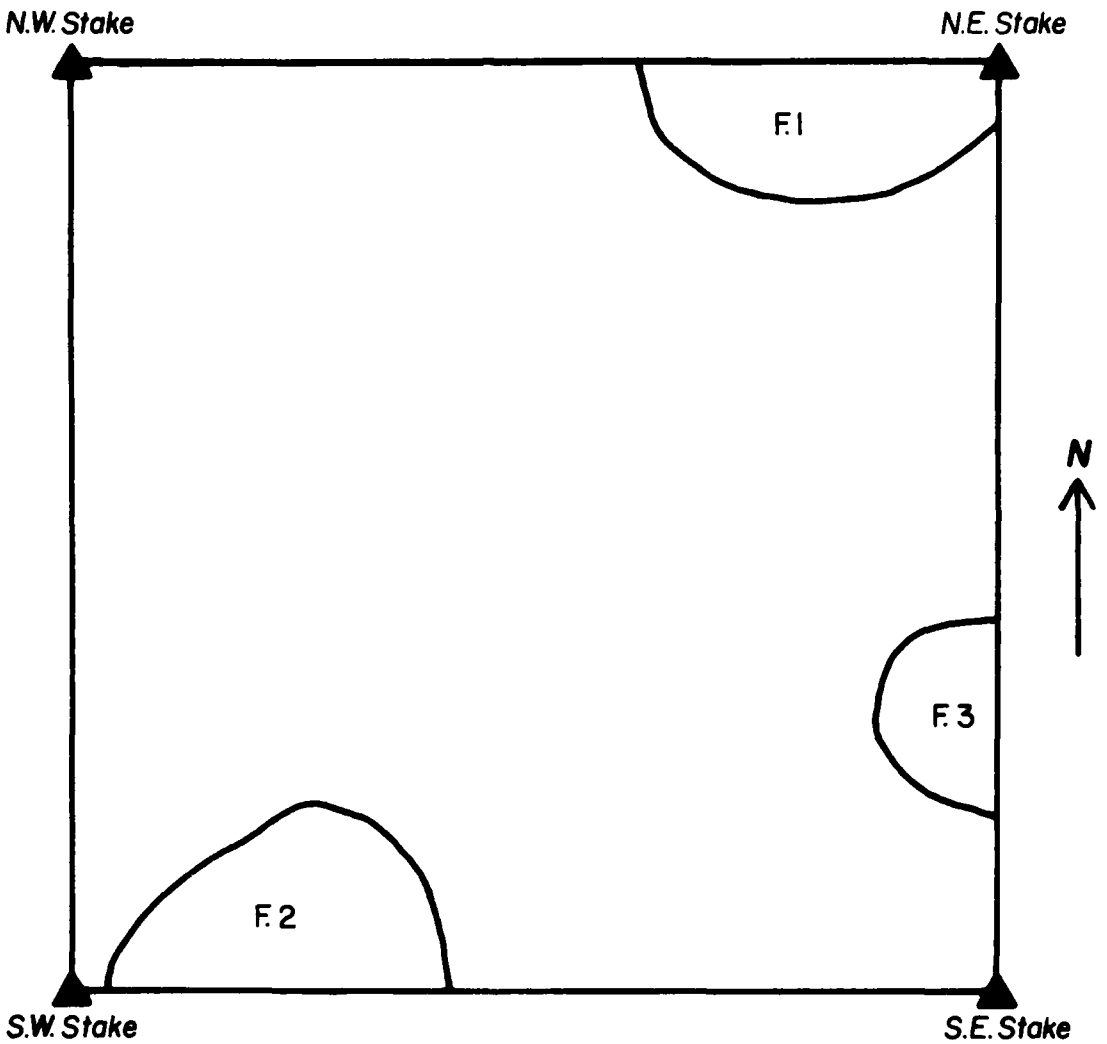
	Blue/Gray/ Tan	Fossil Gray	Gray Banded	Pink	Quartzite	N=	%=
Indeterminate							
Primary Decortication	1	-	-	-	-	1	0.9
Secondary Decortication	13	4	5	-	1	23	19.8
Flat	3	3	1	-	-	7	6.0
Bifacial Thinning	12	2	3	-	-	17	14.6
Blade/Blade-like	-	-	1	-	-	1	0.9
Unident./Broken	22	7	-	2	-	31	26.7
Utilized Flake	6	7	2	-	-	15	12.9
Flake End Scraper	1	1	-	-	-	2	1.7
Flake Side Scraper	1	2	-	-	-	3	2.6
Core	1	1	-	-	-	2	1.7
Core Scraper	2	1	1	-	-	4	3.4
Chipped Notched "hoe"(?)	1	-	-	-	-	1	0.9
Amorphous Thick Biface	-	1	-	-	-	1	0.9
Blank/Roughout	-	1	-	-	-	1	0.9
PP/K#1	2	2	-	-	-	4	3.4
PP/K#2	-	1	-	-	-	1	0.9
Middle Archaic							
PP/K#7	1	-	-	-	-	1	0.9
Woodland							
PP/K#43	-	1	-	-	-	1	0.9
N=	66	34	13	2	1	116	-
%=	56.9	29.3	11.2	1.7	0.9	-	100.0

Table 22: 40JK35 Test Pit 1, Level (Plow Zone) (2/40JK35)

	Blue/Gray/ Tan	Fossil Gray	Gray Banded	Quartzite	Shale	N=	%=
Indeterminate							
Secondary Decortication	9	8	-	-	-	17	14.4
Flat	1	1	1	-	-	3	2.6
Bifacial Thinning	5	8	-	-	-	13	11.0
Blade/Blade-like	1	-	-	-	-	1	0.8
Unident./Broken	20	42	-	1	-	63	53.0
Utilized Flake	2	3	-	-	-	5	4.3
Flake End Scraper	-	3	-	-	-	3	2.5
Flake Side Scraper	-	1	1	-	-	2	1.6
Spokeshave	-	1	1	-	-	2	1.6
Unworked Nodule	-	1	-	-	-	1	0.8
Unworked Pebble	-	-	-	1	-	1	0.8
Unworked Shale Fragments	-	-	-	-	3	3	2.5
Blank/Roughout	1	-	-	-	-	1	0.8
PP/K#1	1	2	-	-	-	3	2.5
Late Archaic							
PP/K#36	-	-	-	1	-	1	0.8
N=	40	70	3	3	3	119	-
%=	33.6	58.9	2.5	2.5	2.5	-	100.0

FIGURE 10

40JK35
TEST PIT 1



NOT TO SCALE; FOR LOCATIONAL PURPOSES ONLY.

Table 23: 40JK35 Test Pit 1, Feature 2 (4/40JK35)

	Fossil Gray	Gray Banded	Pink	Quartzite	Clay	N=	%=
Indeterminate							
Secondary Decortication	2	-	-	1	-	3	30.0
Bifacial Thinning	1	-	-	-	-	1	10.0
Unident./Broken	1	1	-	-	-	2	20.0
Utilized Flake	-	-	1	-	-	1	10.0
Burned Clay	-	-	-	-	3	3	30.0
N=	4	1	1	1	3	10	-
%=	40.0	10.0	10.0	10.0	30.0	-	100.0

SITE 40JK36

UTM Zone 16: Easting 609000, Northing 4020230
Elevation: 520' AMSL
Physiography: Terrace
Floral Cover: Heavy pasture
Quadrangle: USGS 7.5' Granville, Tennessee (1968 edition)

Site Location: Site is located on northern terminus of a broad, gently sloping terrace; 375 feet southwest of original right (southwest) bank of Salt Lick Creek; 3,425 feet north of original confluence of Salt Lick Creek and right (north) bank of Cumberland River; 2,850 feet east of south of Smith Memorial Church; 1,400 feet east-northeast of BM 510; and 5,450 feet southeast of BM 514.

Site Dimensions: This site is roughly rectangular in shape and measures ca. 200 feet northeast-southwest by ca. 650 feet northwest-southeast. Estimated surface area is 130,000 square feet; 14,444.4 square yards; or 12,077 square meters.

Reference: Previously unpublished data.

Surface Collection: As a result of exceptionally dense ground cover, the entirity of the surface collection obtained from this site was gathered after the general area had been completely denuded of plow zone soil in preparation for the construction of a boat ramp and parking lot. This assemblage contained several artifacts dated to the Paleo-Indian, Early/Middle Archaic, Late Archaic, and Woodland periods (Table 24).

Following the removal of the plow zone from over an acre, the construction area was carefully examined for any exposed features, post molds, etc. Near the eastern terminus of the site, a single fire pit (designated Feature 1) was situated 42.05 feet northeast of survey stake (Roadway Station) 90+00 and 35.20 feet southeast of survey stake (Roadway Station) 90+50. This shallow, slightly irregular fire pit measured 2.1 feet across its north-south axis, 2.5 feet across its east-west axis, and extended to a maximum depth of about 6.25 inches beneath the disturbed ground surface (Plates 16-17, Figure 11). The fill of this feature contained a large quantity of burned limestone (well over the amount held by a typical 2 gallon metal pail), some fired clay, and small amounts of identifiable floral remains (see Appendix E) but no artifacts, diagnostic or otherwise. Several inclusions of fired sand or deteriorated fired sandstone were noted as were several instances of in-situ firing on the walls of the fire pit.

Test Pit: Prior to the initiation of construction activities, a single test unit measuring 5 feet by 5 feet was excavated near the

Table 24: 40JK36 Surface Collection (1/40JK36)

	Blue/Gray/ Tan	Fossil Gray	Gray Banded	Fossil Pink	Pink	Quartzite	Sandstone	N=	%=
Indeterminate									
Secondary Decortication	16	17	1	1	1	-	-	36	21.3
Flat	-	1	-	-	-	-	-	1	0.6
Bifacial Thinning	8	9	-	-	-	-	-	17	10.0
Unident./Broken	19	24	2	1	2	1	-	49	28.9
Utilized Flake	6	29	1	1	-	1	-	38	22.4
Flake End Scraper	-	1	-	-	-	-	-	1	0.6
Flake Side Scraper	2	3	1	-	-	-	-	6	3.6
Spokeshave	1	1	-	-	-	-	-	2	1.2
Core	-	4	-	-	-	-	-	4	2.4
Hammerstone	-	-	-	-	-	-	1	1	0.6
Unworked Nodule	-	1	-	-	-	-	-	1	0.6
Amorphous Thick Biface	-	2	-	-	-	-	-	2	1.2
Blank/Roughout	-	1	-	-	-	-	-	1	0.6
PP/K#1	1	1	1	-	-	-	-	3	1.8
PP/K#2	-	-	-	-	1	-	-	1	0.6
Paleo-Indian									
Resolved Flake End Scraper	-	1	-	-	-	-	-	1	0.6
Early/Middle Archaic									
PP/K#5	-	1	-	-	-	-	-	1	0.6

Table 24 (cont.): 40JK36 Surface Collection

	Blue/Gray/ Tan	Fossil Gray	Gray Banded	Fossil Pink	Pink	Quartzite	Sandstone	N=	%=
Late Archaic									
PP/K#18	1	-	-	-	-	-	-	1	0.6
PP/K#22	-	1	-	-	-	-	-	1	0.6
PP/K#28	-	1	-	-	-	-	-	1	0.6
Woodland									
PP/K#27	1	-	-	-	-	-	-	1	0.6
N=	55	98	6	3	4	2	1	169	-
%=	32.5	57.9	3.6	1.8	2.4	1.2	0.6	-	100.0

Plate 16. 40JK36: Feature 1 with Limestone Slabs in situ

Plate 17. 40JK36: Feature 1 with Limestone Slabs Removed

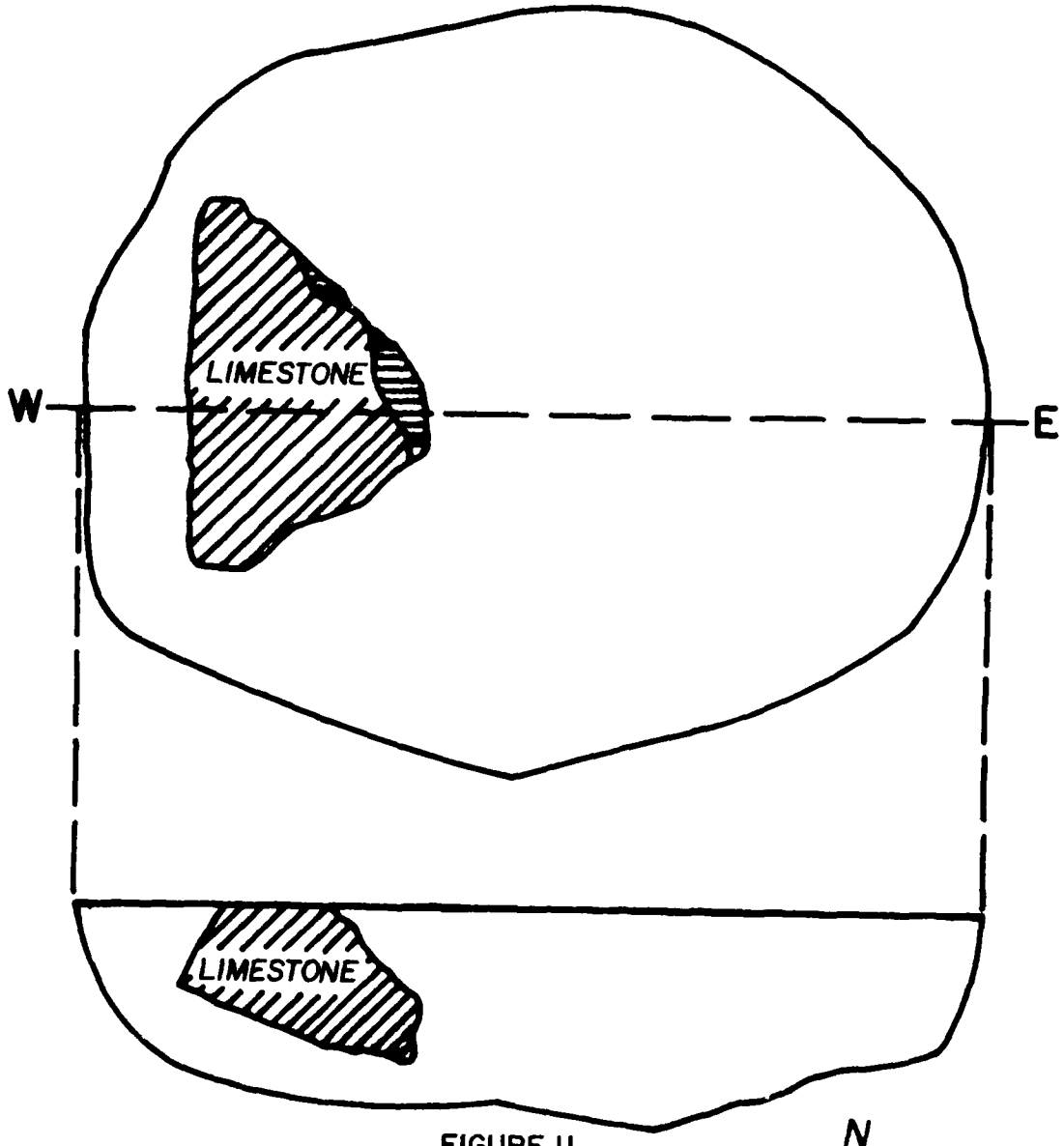


FIGURE 11
40JK36
FEATURE 1
PLAN VIEW AND PROFILE

Table 25: 40JK36 Test Pit 1, Level 1 (Plow Zone) (2/40JK36)

	Blue/Gray/ Tan	Fossil Gray	Fossil Pink	N=	%=
Indeterminate					
Secondary Decortication	1	3	1	5	20.8
Bifacial Thinning	1	3	-	4	16.7
Unident./Broken	2	8	1	11	45.8
Utilized Flake	-	2	-	2	8.3
Flake End Scraper	1	-	-	1	4.2
Blank/Roughout	-	-	1	1	4.2
N=	5	16	3	24	-
%=	20.8	66.7	12.5	-	100.0

northeast corner of the site. Exhibiting a relatively thin plowzone measuring only 4.5 inches to 5.5 inches in depth, a meager quantity of non-diagnostic artifacts were recovered (Table 25). A distinctive but nonetheless sterile yellow soil occurred immediately below the plow zone level.

SITE 40JK37

UTM Zone 16: Easting 607280, Northing 4019870
Elevation: 510' AMSL
Physiography: Floodplain
Floral Cover: Light brush/weeds
Quadrangle: USGS 7.5' Granville, Tennessee (1968 edition)

Site Location: Site is located on slight rise on southern edge of present floodplain; 300 feet northeast of original right (north) bank of Cumberland River; 3,450 feet northwest of original confluence of Salt Lick Creek and right (north) bank of Cumberland River; 4,450 feet south-southwest of Smith Memorial Church; 1,300 feet southwest of BM 510; and 3,350 feet north-northeast of BM 556.

Site Dimensions: According to a local informant, this site is ovoid in shape and measures ca. 200 feet northeast-southwest by ca. 500 feet northwest-southeast. Estimated surface area is 78,540 square feet; 8,726.7 square yards; or 7,296.4 square meters.

Reference: Previously unpublished data.

Surface Collection: At present, this site is situated on an elongated, man-made island as a result of the water level of Cordell Hull Reservoir. A single visit to this site via a boat generously provided by Mr. Gene Terry Smith and his father, residents of nearby Gladdice Community, resulted in the recovery of a small quantity of non-diagnostic artifacts (Table 26) and several identifiable faunal remains (see Appendix D).

When visited, two large "pot holes" near the present river bank permitted the documentation of some stratigraphic data. Apparently centered on a small but distinct rise near the river bank, the uppermost stratum of the site consists of a light colored clay overburden varying from 5.0 inches to 7.5 inches in thickness. Beneath this zone a noticeably darker midden occurs which ranged from 0.5 foot to 1.0 foot in depth. Below the culture bearing midden a sterile, yellow colored soil was noted (Figure 12). According to Mr. Smith, the shell bearing midden on this site was about "waist deep" in places. Prior to its purchase by the government, Mr. Smith reported he had found shell-tempered ceramics in the upper 1.0 foot of the midden, a cut bear mandible, several large triangular "points" about 2.5 inches long, and a greenstone celt. These items were not available for inspection.

Table 26: 40JK37 Surface Collection (1/40JK37)

	Blue/Gray/ Tan	Fossil Gray	Limestone	Shale	Sandstone	N=	%=
Indeterminate							
Primary Decortication	1	-	-	-	-	1	4.6
Secondary Decortication	3	-	-	-	-	3	13.6
Flat	1	-	-	-	-	1	4.6
Bifacial *Thinning*	1	1	-	-	-	2	9.1
Unident./Broken	3	-	-	-	-	3	13.6
Burned Limestone	-	-	6	-	-	6	27.3
Unworked Shale Fragments	-	-	-	3	-	3	13.6
Sandstone Fragments	-	-	-	-	2	2	9.1
PP/K#1	-	1	-	-	-	1	4.5
N=	9	2	6	3	2	22	-
%=	40.9	9.1	27.3	13.6	9.1	-	100.0

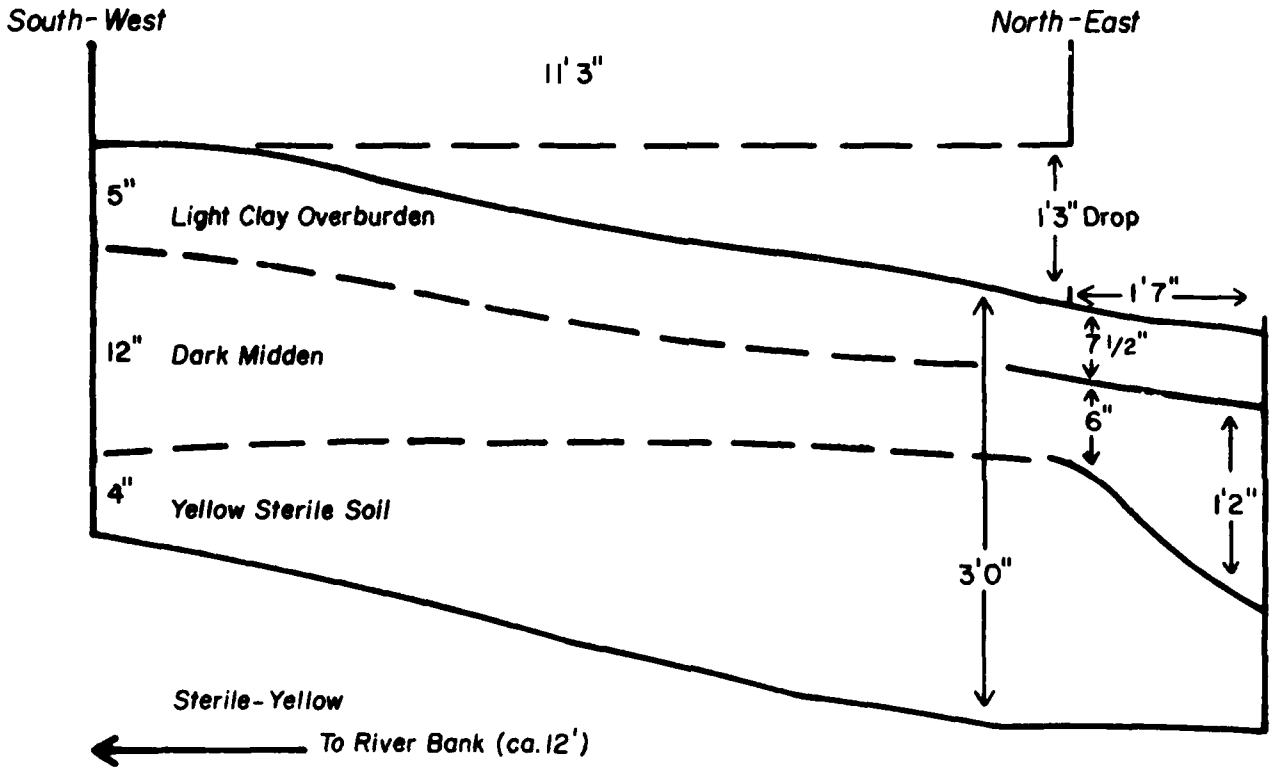


FIGURE 12
40JK 37
RECONSTRUCTED SOIL PROFILE

SITE 40JK38

UTM Zone 16: Easting 608380, Northing 4020180
Elevation: 500-510' AMSL
Physiography: Floodplain
Floral Cover: Dense vegetation/weeds
Quadrangle: USGS 7.5' Granville, Tennessee (1968 edition)

Site Location: Site is located on portion of extent floodplain at base, and eastward, of relatively steep bluffs; 1,350 feet north-northeast of original right (north) bank of Cumberland River; 3,900 feet northwest of original confluence of Salt Lick Creek and right (north) bank of Cumberland River; 775 feet west-northwest of BM 510; 3,350 feet south-southwest of Smith Memorial Church; and 4,825 feet south-southeast of BM 514.

Site Dimensions: According to a local informant, this site may best be described as a very irregular oval measuring ca. 200 feet northeast-southwest by 700 feet northwest-southeast. Estimated surface area is 109,956 square feet; 12,217.3 square yards; or 10,214.9 square meters.

Reference: Previously unpublished data.

Surface Collection: Brought to the attention of the survey crew by Mr. Gene Terry Smith of the Gladdice Community, this site was totally removed from the path of any planned construction activities within the confines of the Salt Lick Recreation Area. This factor, combined with time limitations imposed by work elsewhere on the grounds, resulted in the site not being visually inspected. Data pertinent to the site location, size, and artifactual composition was gained solely from Mr. Smith. An all too hurried examination of Mr. Smith's personal collection (gathered, it should be noted, prior to the purchase of the land by the government) revealed the following materials, the majority of which were recorded under the type-name scheme of Cambron and Hulse (1969):

2 - Quad (includes one doubtful basal fragment)
3 - Beaver Lake bases
2 - Big Sandy (one complete; one broken)
5 - Kirk Serrated
3 - Resolved flake end scrapers
1 - Dalton (with basal grinding)
2 - small expanded stemmed, bevel-bladed serrated points (with basal grinding)
1 - well made blank/preform ca. 3.0 inches long
1 - "dove-tail" basal fragment with ground base (cf. St. Charles type)
1 - beveled blade distal fragment with light serration
1 - large bifacial "blade" with small corner notches (ca. 3.0 inches long; Dover chert)

3 - large bifacial "blades" with corner notches and heavily ground incurvate base (2 - ca. 2.0 to 2.5 inches long; 1 - ca. 3.0 inches long)
1 - straight stemmed medium sized "point" with heavy basal grinding
1 - straight stemmed medium sized "point" with basal grinding and lightly serrated blade
1 - unserrated "point" distal fragment
2 - expanded stem points ca. 1.25 inches long
1 - large "eared" stemmed point with heavy basal grinding

SPOIL PILE ("40JK00")

This arbitrary designation was assigned to a construction spoils pile located between sites 40JK32 and 40JK33. Although this earth was probably removed from site 40JK3-B, this contention could not be adequately supported during conversations with various workmen on the recreation area premises. Artifactual materials recovered from this area included single examples of Early/Middle Archaic PP/K#5 of pink chert, a Late Archaic PP/K#31 of fossiliferous gray chert, and an Indeterminate flake side scraper of blue/gray/tan chert. As these artifacts were totally unprovenienced, they are noted here only to document their presence in the survey area. It should be noted that the assignment of a "site number" to an obvious "non-site" such as a spoil pile was done only to facilitate data recording. The use of such a number for cataloging is not meant to suggest that this restricted portion of the reconnaissance/survey area does in fact constitute a "site" in any formal use of the term.

SECTION VI

HISTORIC SITES

During the conduct of the reconnaissance, a limited number of historic period sites or components was recorded. As the major effort expended in the field was oriented toward the collection of data pertinent to the prehistoric inhabitants of the recreation area, the observations offered here must, of necessity, be particularly restrictive in scope.

Historic Cemetery

A single unnamed historic period cemetery was noted on the U.S.G.S. 7.5' Granville, Tennessee, quadrangle (1968 edition) as being approximately 375 feet southeast of the southern terminus of site 40JK34. Purported to be either a slave or early settler cemetery by local informants, this site is marked on the ground only by a dense stand of trees and brush. No gravemarkers or sunken pits were observed by the field crew.

Warehouse Foundation

As reported by local informants, the remains of an early brick warehouse foundation was located in a seasonally inundated low spot approximately 800 feet east of site 40JK37. As this locality was under water at the time of fieldwork, no further comments may be offered.

Site 40JK34

A single crazed plain white porcelain rim sherd, possibly from a cup or saucer, was recovered in the surface collection from this site. No other historic materials or structural remains were observed.

Site 40JK3-A

Two historic period artifacts were recovered in the surface collections from this site: a loop handle fragment from a crockery jug and a badly rusted pocket knife. Conceivably the loop handle, tan in color, is the remnant of a locally produced ware since one of the early major industries of nearby Dekalb, White and Putnam counties is known to have been crockery (Webb 1971:110-112).

Site 40JK33

In the area of the excavations undertaken near the southern terminus of this site, three plain white porcelain sherds (including one rim sherd) and a single dark brown crockery body sherd were recovered during surface collecting. Near the northern terminus of the site, a concentration of historic debris was observed which consisted of one plain white porcelain rim sherd, eight plain white porcelain body sherds, three white porcelain rim sherds bearing a raised (floral?) pattern, one white body sherd with a pink and green floral print, one white rim sherd with a narrow gold line oriented parallel to the rim and bearing a pink, green and yellow floral print, one white rim sherd with a narrow gold line oriented parallel to the rim and directly above an embossed pattern similar in some respects to early 19th century shell-edged ware, a rim sherd from a light green glass coffee cup, three crockery body sherds (one light tan; two dark brown), and the brass base of a badly corroded 12 guage shot gun shell. It is suggested here that the majority of these items are of 20th century manufacture and are related to a house foundation which stood, prior to Corps of Engineers development, not over 100 feet west of the artifact concentration.

SECTION VII

CONCLUDING REMARKS

In the preceding pages a total of nine prehistoric archaeological sites and their respective artifactual assemblages has been documented. While it is frequently desirable to offer some interpretive remarks pertinent to each site encountered during the conduct of projects such as this one, it is not always possible to do little more than recount the occupation of a given site at a particular period in the archaeological past. This information is best presented in tabular form (see Table 27) for convenient reference.

Of immediate concern for purposes of cultural resource management, however, the "recommendation" column of Table 27 should be elaborated upon. Within this column, a total of four recommendation categories are present. These are, with the sites subsumed within them:

1. Nominate to National Register of Historic Places - 40JK3-A; 40JK33.

2. Monitor in event of future construction - 40JK32; 40JK35.

3. Testing needed - 40JK37; 40JK38.

4. No further work required - 40JK3-B; 40JK34; 40JK36.

By virtue of their demonstrable Woodland occupation in conjunction with ceramics, identifiable floral remains, extensive occupational debris, and sub-surface features, both sites 40JK3-A and 40JK33 are undoubtedly capable of yielding significant data regarding the Middle and Late Woodland cultures of the Upper Cumberland basin. Although lacking stratigraphy, the careful excavation of these sites would provide a tremendous understanding of Woodland period settlement and exploitation patterns within the region.

Site 40JK32 has been recommended for monitoring in the event of future construction as a result of a general lack of data about this site. Test pit results were not conclusive and road bed construction skirted the eastern edge of the site rather than exposing the site's core area. Site 40JK35 is worthy of monitoring on the basis of known sub-surface features exposed and subsequently re-covered during the course of construction activities.

TABLE 27: Summary and Recommendations

Site	Known Component(s)*									Recommendation
	UN	P	EA	E/MA	MA	LA	W	M	H**	
40JK3-A	-	-	X	-	X	X	X	-	X	Nominate to National Register
40JK3-B	-	-	-	-	-	X	-	-	-	No further work required
40JK32	X	-	-	-	-	-	-	-	-	Monitor in event of future construction
40JK33	-	-	X	X	X	X	X	-	X	Nominate to National Register
40JK34	-	?	?	-	-	X	X	-	X	No further work required
40JK35	-	-	-	-	X	X	X	-	-	Monitor in event of future construction
40JK36	-	X	-	X	-	X	X	-	-	No further work required
40JK37	-	-	-	-	-	-	-	X	-	Testing needed
40JK38	-	X	X	-	X	X	-	?	-	Testing needed

*Key to abbreviations:

UN=Unknown prehistoric component; P=Paleo-Indian; EA=Early Archaic; E/MA=Early/Middle Archaic; LA=Late Archaic; W=Woodland; M=Mississippian; H=Historic Euro-American

**See also "Section VI" for additional data concerning historic period sites within the reconnaissance area.

Sites 40JK3-B and 40JK36 were effectively destroyed by earth moving activities and are not recommended for additional work. Site 40JK34, on the basis of both field observations and subsequent testing by personnel of the U.S. Army Corps of Engineers, Nashville District (cf. Amick 1978) is adjudged to be a small lithic scatter of limited significance.

Additional testing is needed on sites 40JK37 and 40JK38 to better ascertain their significance in terms of National Register of Historic Places criteria. In particular, the Paleo-Indian and Early Archaic components on site 40JK38 are important in their own right and also subject to wave action as a result of fluctuating pool elevation.

In addition to these generalized comments, remarks should be directed to two other items of concern regarding cultural resource recommendations for the area. The first point is merely to note that throughout the conduct of the present project and in subsequent dealings with representatives of the Corps of Engineers, there is an implicit but recurrent impression gained that cultural resources is synomymous with prehistoric archaeological remains. This attitude is erroneous in that not only historic period archaeological sites but also standing structures are typically viewed as having no value. While these comments are not offered in a critical vein, it should be remembered that National Register criteria also provide for sites and structures other than those dating to the prehistoric past.

The second point is to emphasize the pressing need for extensive, reservoir wide reconnaissance and survey efforts. Granting that archaeological sites possess individual significance, the thrust of archaeological research should be directed toward the accumulation of data relevant to culture as an on-going process which simultaneously exists at the site level and in the interaction of the occupants of several sites and regions. Thus, while limited scope projects such as this (see also Fox n.d.) may provide important data, this information must ultimately be integrated into a regional whole based on data collected from many physiographically and ecologically discrete portions of the study area (cf. Dickson 1973; Hood and McCollough n.d.; Kleinhans n.d.).

APPENDIX A

UNIVERSITY OF TENNESSEE CATALOGUE NUMBERS
PERTINENT TO SALT LICK RECREATION AREA,
CORDELL HULL RESERVOIR,
JACKSON COUNTY, TENNESSEE

State Site No.	Catalogue Prefix	Unit/ Feature
40JK3-A (north knoll)	1-	General surface
	2-	Test Pit 1, Level 1 (Plow Zone)
	3-	Test Pit 1, Level 2
	4-	Feature 1
	5-	Feature 2
	6-	Feature 3
	7-	Root Mold 2
	8-	Root Mold 3
	9-	Root Mold 4
40JK3-B (south floodplain)	10-	General surface
40JK32	1-	General surface
	2-	Test Pit 1, Level 1
40JK33	1-	General surface/south road cut (includes historic artifacts)
	2-	Surface ceramics/south road cut
	3-	Surface fauna/south road cut
	4-	Test Pit 1, Level 1 (Plow zone lithics)
	5-	Test Pit 1, Level 1 (Plow zone ceramics)
	6-	Test Pit 1, Level 1 (Plow zone faunal material)
	7-	Test Pit 1, Feature 2
	8-	Test Pit 1, Feature 3
	9-	Test Pit 1, Feature 4
	10-	General surface/north construction area (includes historic artifacts)
	11-	Surface ceramics/north construction area
	12-	Surface fauna/north construction area
	13-	Post Mold 1/north construction area

State Site No.	Catalogue Prefix	Unit/ Feature
40JK34	1-	General surface lithics
40JK35	1-	General surface lithics
	2-	Test Pit 1, Level 1 (Plow Zone)
	3-	Test Pit 1, Feature 1
	4-	Test Pit 1, Feature 2
40JK36	1-	General surface lithics
	2-	Test Pit 1, Level 1 (Plow Zone)
	3-	Feature 1 (floral material)
40JK37	1-	General surface lithics
	2-	Surface fauna
40JK38	[No recovered materials; site known only through local collector]	
Spoil Pile ("40JK00")	1-	Unprovenienced surface material collected from construction spoil pile near site 40JK3-A.

APPENDIX B

PRESERVATION OF HUMAN BODIES IN A CAVE IN TENNESSEE*

Pleasant M. Miller

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Preservation of human bodies in a cave, in Tennessee: in a letter from Pleasant M. Miller, Esq. of Knoxville, dated May 1st., 1811.

Dear Sir,

You may remember, during the last winter, of my showing you at Washington an extract from the Nashville paper relative to a discovery of two bodies, in a perfect state of preservation, that were found in a copperas cave, and that on some account, we had reason to doubt the truth of that statement. Since my return home, I made some inquiry, and I now know that the facts stated in that extract are true. Some parts of the bodies have been transported to some of the larger towns to the eastward of this. Another circumstance not detailed is, that the cane boxes, or coffins in which they were preserved, were not long enough for the whole body; the legs were cut off and laid on their breasts; the bodies were as well preserved as a dried venison ham. The statement referred to Mr. Miller is this: --

"We are informed by a gentleman who was present when the following discovery was made, and on the fidelity of whose narrative we place the utmost reliance, that on the 2d day of September last [i.e., 1810], some persons were digging in a copperas cave (in the county of Warren, state of Tennessee,) situated on what is usually called the Cany [presently spelled Caney] Fork of Cumberland River, 10 miles below the falls. That at about six feet below the surface of the bottom of the cave, something like clothing was discovered, which, upon proper examination, was found to be the shrouding of some dead bodies. Upon further investigation, the bodies were found

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*Originally published 1812 in Medical Repository, Vol. 15, pp. 147-149, New York.

to be two in number, a male and female, which, as he expressed it, they judged to have been buried in ancient times. They supposed the male to have been at the time of his decease about 25 years of age. He was enveloped in the following manner: first, with a fine linen shirt. His legs were drawn up, then five dressed deer skins were closely bound round his body. A twilled blanket, wrapped round the whole. His frame was entire except the bowels; his hair, of a fair complexion; his teeth, remarkably sound; his stature, above the common. The body of the female was found interred about three feet from that of the other. Its position of lying was similar to that of the male. The carcase was enveloped first with two undressed deer skins, under which, upon the face, was found a small cane mat. Then four dressed deer skins were wrapped round it, over which was folded a cane mat large enough to cover the whole. There were then five sheets, supposed to be of nettle lint, wrought up curiously around each side with feathers of various kinds and colours. Two fans of feathers were found next, upon the breast. The body, with the whole of the before described wrapping, was found on what was believed to be a hair trunk or box, with a cane cover, which was wound up in two well-dressed deerskins of the largest kind; the whole girthed with two straps: the female is supposed to have been from 12 to 15 years of age: her hair short and black; the body entire; the eyes as full and prominent as if alive.

This cave is further described as follows:

About 30 miles from Carthage, on the Cany Fork of Cumberland River, a Mr. James Bryant has discovered a very extensive allum and copperas cave, capable of being wrought to an extent sufficient to supply the whole consumption of this state, and can be afforded at retail in Nashville, for half the price the imported copperas has heretofore sold for. This discovery, which was hinted at some time since in a public paper, is of the greatest importance. The cave that has been wrought lies in Warren county, within two miles of a boatable stream; there is also a fine road from it and the copperas we have seen is not quite so fine as some of the imported but appears to be much stronger, and looks very well. Mr. Bryant has experienced considerable difficulty in acquiring a proper knowledge of the cheapest

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and most productive process by which to separate the copperas from the allum. Heretofore he has been obliged to destroy the allum to save the copperas. Any person who is acquainted with the method or the manner of making either, will confer a favour on the infant manufactures of our state, by communicating the same to the editor of the Clarion, that Mr. Bryant may save us the importation of copperas and allum. Mr. Bryant has only made

about 200 weight of copperas, as yet; but a Mr. Coates, to whom he gave permission to try what he could make, has made about 300 weight. He is convinced that the different caves that he knows of in that neighborhood will be sufficient, if properly worked, to supply every call for copperas and allum in this state.

[End of Article]

APPENDIX C

MOUNDS ON FLYNN'S CREEK, JACKSON COUNTY, TENNESSEE*

Joshua Haite, Sr.

The valley in which these mounds are situated is on the east bank of Flynn's Creek, which empties into the Cumberland River, and is 3 miles above the mouth of the creek and 1 mile south of the river. The valley is 4 miles west of Gainesboro', the county seat, and near the center of a section of country that abounds in mounds and graves. This valley which is full of these graves, contains near 100 acres, and is the site of the village called Flynn's Lick. There are five limestone springs, one sulphur spring, and a salt spring. From the number of mounds of earth, stone, and shell, it is evident that it has been a large town and a place of note among the inhabitants of that day. A further reason is that the valley is easily approached from every direction. They valley is full of graves, placed as close as they can be in the ground. It has been in cultivation sixty-five years. Before it was cleared it was covered with a dense forest of trees, some of which are from 4 to 6 feet in diameter. Even on the tops of these mounds trees were standing (of the oak and poplar species) measuring 4 and 5 feet in diameter. At the time the valley was cleared it was not known that there were any graves there.

The graves are of all sizes, varying from 18 inches to 6 feet in length and the usual size in width. The coffins are made of slate-rock slabs (which now seems to be plentiful 4 miles up the creek, where there is a large quarry), and are generally neatly polished. The bones and pottery are now found from 18 to 20 inches below the surface of the ground. The coffins are constructed in the following manner: They first placed on the bottom of the grave one or two slabs of slate-work neatly polished and jointed closely together in the middle when they had to use two of them; they next placed one at the head and one at the foot of the grave; then they set up one or two, as the case required, on edge on both sides, neatly fitted together in the middle and at the ends, which forms a box. They next took one or two pieces, as the size of the coffin demanded, neatly polished and jointed together in the middle and at the ends, and placed them on for the lid, projecting on all sides from 2 to 4 inches. Occasionally we find a grave where they have used limestone instead of slate rock.

*Originally published 1883 in Annual Report of the Board of Regents of the Smithsonian Institution . . . for the Year 1881, pp. 611-612, Washington.

On the east side of the creek, about 100 yards from its bank, is the grand earthern mound, which is larger and higher than any of the others in the valley. All the graves as a general rule face this grand mound; but occasionally, owing to the rock in the ground, this rule is varied and the direction changed, showing that closeness or compactness was their leading idea.

The mounds referred to in this valley and vicinity are composed both of earth and stone, and are found on both sides of the creek. The [end of page 611] largest earthen mound, which I call the grand mound because all the graves are facing it, is about ninety feet in diameter, and at this time about 4 feet high; but when first discovered by whites it was 5 or 6 feet high. This mound has not yet been examined, but others in the valley, not so high but larger in diameter, have been looked into and were found to contain graves, pottery-ware, pipes and arrow-heads made of dirt or cut out of rock. These are found in the graves in the mound and in those around it.

On a hill adjacent to the valley, about 200 feet high, are six stone mounds constructed of rough limestone rock. These mounds are situated about 300 yards east of the valley. They are about 20 feet in diameter and 2½ or 3 feet high. Four of them have been examined, and all of them were found to be full of human bones and pottery ware, but not so close together as the others. The graves were constructed, or covered over with rock, differently from the others. The corpse seems to have been put in first, and then rock slabs set up and placed together at the top in the shape of the roof of a house. In this way was the place filled with graves all over a certain spot, and then rough stone piled on until the mound was formed. I have spoken of only six mounds on this hill, of this kind; but there are many in this vicinity of this kind, but they have not been examined. Near the center of the mound examined by me, in a grave, were found bones of a human being charred perfectly black, around which were placed all the others.

On the west side of the creek is a bluff in which were found several holes, and on examination one of them was found to lead into a cave which has been explored for about 100 yards. This cave contains several apartments which are dry, and within this are found a great many human bones, some of which are still in a state of preservation.

A female skeleton was taken from a grave found about 80 yards west of the mound that I have designated in this letter as the grand mound. This skeleton was lying with the face towards the mound, with a pipe in her right hand resting on her right thigh. With this skeleton I found in opening the grave an infant child lying with its feet against the thigh bones of its mother. When first opened this child's skull-bone and other bones were in perfect form, but as soon as the air came in contact with it

it broke into lime, or powder. This female evidently died in childbirth, the feet of the foetus coming first. This female we are led to believe, from the pains taken in burying her, must have been of note amongst them, for I found in disinterring this skeleton that the remains were deposited in a wooden coffin, and then this one was put into one of neatly polished rock. A jug was found, with the mouth down and the bottom upwards, placed against the skull-bone. The stone with a hole in the center, which is called a corn-muller, I found about 80 yards from the grand mound. This was plowed up and found, among a large number of human bones in a decayed condition, upon the top of a small mound in the valley. The pottery, of the character sent, is found in all the graves and in a similar condition [end of page 612].

APPENDIX D

FAUNAL REMAINS FROM SALT LICK RECREATION AREA, CORDELL HULL RESERVOIR, JACKSON COUNTY, TENNESSEE

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A small sample of faunal remains was recovered during an archaeological survey of the Salt Lick Recreation Area, Cordell Hull Reservoir, Jackson County, Tennessee, from sites 40JK33 and 40JK37. These two small faunal assemblages only serve to document the occurrence of white-tailed deer, fresh-water unionids and aquatic gastropods on these site, but allow for no further elaboration.

40JK33

North Surface
#12 - 1 unidentified mammal bone fragment

Test Pit 1, Level 1 (Plowzone)
#6 - 3 unidentifiable large mammal bone fragments (1 calcined)
1 deer? (cf. Odocoileus virginianus) tooth fragment
1 unidentifiable mussel shell fragment

South Surface
#3 - 2 unidentifiable large mammal bone fragments (1 calcined)
1 unidentifiable mussel shell fragment (burned)

40JK37 ("Island Site")

General Surface
#2 - 5 unidentifiable large mammal bone fragments (1 calcined)
1 white-tailed deer maxillary tooth (Odocoileus virginianus)
1 white-tailed deer carpal fragment (Odocoileus virginianus)

Gastropods
4 Pleurocera cf. canaliculatum
3 Lithasia armigera
1 unidentifiable gastropod-aquatic

Pelecypods
1 cf. Fusconaia sp.
10 unidentifiable mussel shell fragments

APPENDIX E

FLORAL REMAINS FROM SALT LICK RECREATION AREA, CORDELL HULL RESERVOIR, JACKSON COUNTY, TENNESSEE

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The carbonized plant remains, recovered by a flotation technique, were sorted through a series of standard laboratory screens of 4.0, 2.0, 1.0 mm and 500 micron mesh. Each fraction was examined under 7 to 30X magnification and sorted into the categories presented in Table 1. The material remaining in the 1.0 mm and the 500 micron screens was not sorted but examined and labeled "sample residue." The plant food remains recovered are few in quantity but are seasonal indicators, available in the fall, from September through December. The seeds of Chenopodium sp. ripen in the late summer through the fall, and the seeds of Phalaris caroliniana (maygrass) ripen in summer to early fall. Chenopod and maygrass seeds were recovered from human feces at Salts Cave (Yarnell 1974). The seeds could have been deposited accidently, since the plants represented grow in disturbed habitats. The alder cone would have matured in late fall; its occurrence may be explained as accidental and most probably was brought in as a result of wood gathering. The various floral remains identified from sites 40JK3-A, 40JK33, and 40JK36 are summarized in the following tables.

Table 1: Plant Remains by Weight in Grams

Site	Plant Food Remains*								
	Acorn Shell	Hickory Nutshell	Walnut Shell	Chenopod (No.)	Maygrass (No.)	Wood Charcoal	Alder Cone	Sample Residue	Total Weight
40JK3-A									
Feature 1	0.25 (1%)	3.0 (15%)	0.6 (3%)	2	-	1.2 (6%)	0.2 (1%)	14.5 (74%)	19.75
Feature 2	-	0.1 (25%)	-	1	-	0.3 (75%)	-	-	0.4
Feature 3	-	ca. .05 (100%)	-	-	-	-	-	-	ca. .05
40JK33									
Structure 1 Post Mold 1	-	X	-	-	-	X	-	-	N/A**
40JK36									
Feature 1	-	0.1 (1%)	-	2	10	3.7 (21%)	-	13.9 (78%)	17.7

*"X" indicates presence

** Actual weight not recorded but sufficient for C-14 date from Geochron Laboratories (GX-4859)

Table 2: Wood Charcoal Identification*

Site Feature	*Arundinaria* sp. (cane)	*Carya* sp. (Hickory)	*Gymnocladus dioicus* (Coffeetree)	Redoak Group	Whiteoak Group
40JK3-A 1	6	1	2	-	1
40JK36 1	-	3	-	1	-
C-14	-	X	-	-	-

*By number of fragments

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