

THE SPECIAL NEEDS PRISON PROJECT: Archaeological Investigations at Four Sites in Cockrill Bend, Davidson County, Tennessee

Mark R. Norton and Kevin E. Smith



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF ARCHAEOLOGY
REPORT OF INVESTIGATIONS NO. 17
2015



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The Division of Archaeology also wishes to recognize the special contributions of Mr. Richard Davis, Tennessee Department of Corrections, in providing access to artifacts previously collected from sites within Cockerill Bend and for keeping a watchful eye on the area while excavations were being conducted.

Analysis of the excavation artifacts were conducted between 1990 and 1994 by Mark Norton (lithics and miscellaneous artifacts), Emanuel Breitburg (fauna), Andrea Shea (flora), and Kevin Smith (ceramics).

INTRODUCTION

This reports presents the results of salvage excavations conducted by the Tennessee Division of Archaeology at four archaeological sites on Cockrill Bend between March and June of 1990 (Figure 1). In early 1990, the Tennessee Department of Corrections notified the Division of Archaeology of proposed plans for expansion of the new state prison complex on Cockrill Bend, a major bend of the Cumberland River west of Nashville (Deter-Wolf and Moore 2015). The proposed "Special Needs" prison facility for sex offenders encompassed an extensive tract of land containing four archaeological sites (40DV64, 40DV65, 40DV67, and 40DV68) identified during prior reconnaissance level surveys (Butler 1977).

The Division of Archaeology initiated a program of investigation in March 1990 to determine the extent and integrity of these four sites. All versions of the preliminary construction plans involved the destruction of sites 40DV64, 40DV65 and 40DV67, with some alternatives involving direct impacts on 40DV68. As a result, initial testing efforts were oriented towards the former three sites. Subsequent to determination that these three sites were heavily deflated, the focus of the project was shifted to 40DV68.

With groundbreaking for the new facility scheduled for May 15, 1990, and the ultimate disposition of the site as yet undetermined, four backhoe trenches were opened at 40DV68. Since several revealed intact subsurface features, two strip blocks were opened and under active investigation when construction engineers informed the Division of Archaeology that final plans involved no additional construction impact to 40DV68. At that time, excavation units in progress were completed and stripped areas not yet investigated were back-filled and sown with grass to preserve remaining deposits.

HISTORICAL AND ENVIRONMENTAL SETTING

The area now known as Cockrill Bend was included in a large land grant by the State of North Carolina to General James Robertson dated October 8, 1787. Soon afterwards, the property passed to Major John Cockrill, a brother-in-law of Robertson, from whose family the area derived its name. Cockrill Bend remained in the ownership of the Cockrill family until 1894, when James Cockrill sold a major portion of the property to the State of Tennessee (Butler 1977).

In 1896, the State Penitentiary was built on the southeastern portion of Cockrill Bend. During the 1930s, the Tennessee Department of Corrections established a farming program to provide produce for inmates. The farming operation was later institutionalized as a rehabilitative program called the State Prison Farm, and included cultivation of large portions of the bend. While serving the functions desired by the Department of Corrections, several decades of intensive agriculture and accompanying soil deflation have seriously affected the integrity of the archaeological resources on Cockrill Bend. For these reasons, all identified archaeological sites on Cockrill Bend were removed from agricultural use in 1991 at the request of the State Archaeologist.

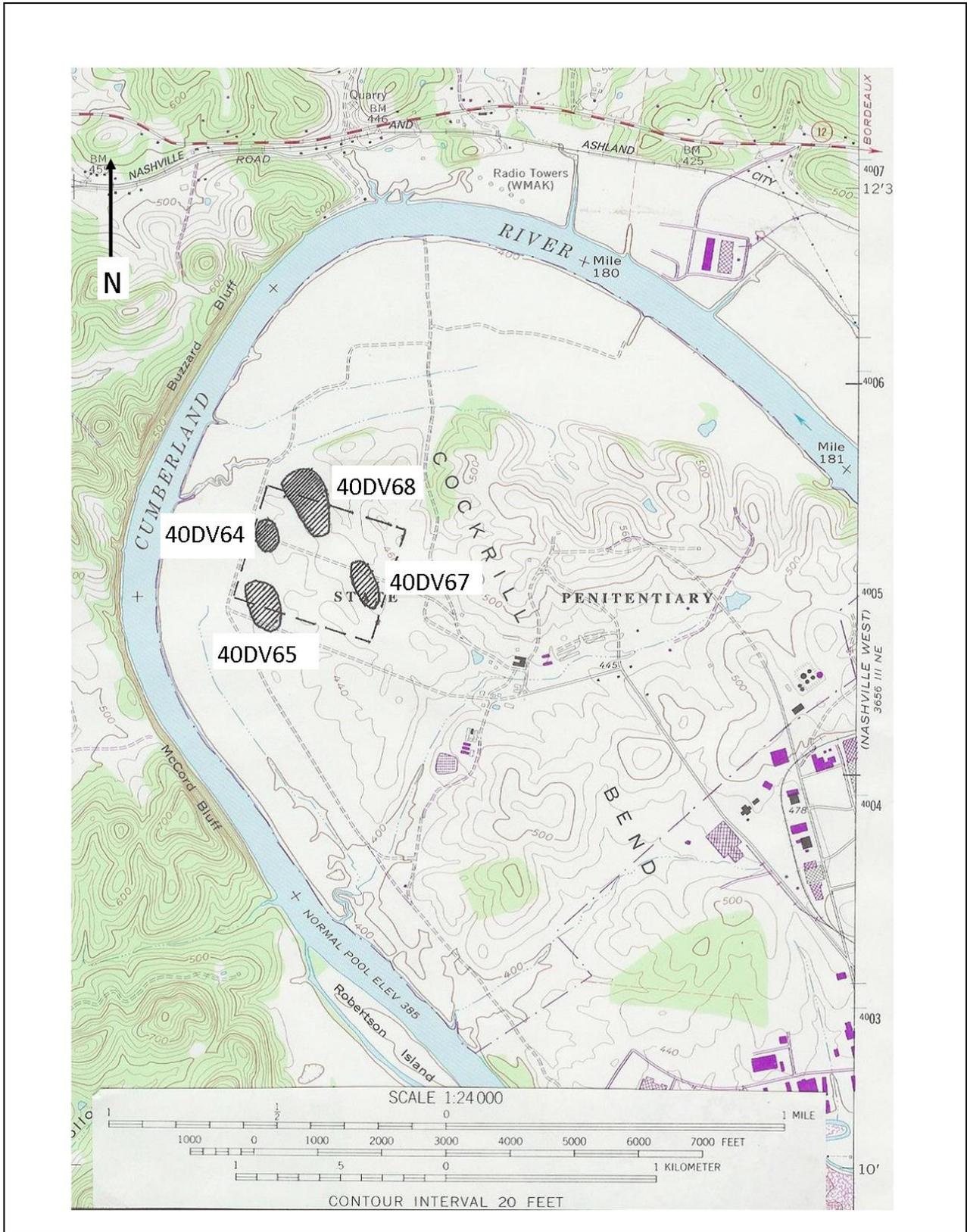


Figure 1. Project location showing site areas.

Physiography

Cockrill Bend, extending from the junction of Richland Creek (ca. CRM 175.7) to a point opposite the confluence of Whites Creek (ca. CRM 182.7), includes approximately 2900 acres within an entrenched meander loop of the Cumberland River in western Davidson County (Butler 1977). The bend and adjacent areas fall within the Central Basin physiographic region, an elliptical elevated depression within the surrounding Highland Rim (Miller 1974:5).

Terrain on Cockrill Bend represents a fairly typical cross-section of the types of landforms found along the Cumberland River within the Central Basin. The central and southern portion of the bend include a series of gently sloping hills averaging between 500 and 560 feet AMSL, while the northern portion of the bend includes a broad alluvial terrace and an active river floodplain ranging between 400 and 450 feet AMSL. The study area is located on the northwestern portion of the bend, and includes a series of low rolling slopes which gradually descend from about 450 feet AMSL to the floodplain (Butler 1977).

Soils

Soils in the Central Basin generally formed in material weathered from the underlying limestone bedrock, and the majority has relatively high silt content. Soils at the sites discussed within the context of this report have been classified as Armour series (U.S. Department of Agriculture 1981:43). This series "formed in alluvium and the underlying residue of phosphatic limestone. They are on stream terraces and foot slopes.... Slopes range from 2 to 15 percent" (U.S. Department of Agriculture 1981:43). Armour series soils consist of silt loams grading to silty clay that are medium to strong acidic. The four sites discussed are found primarily associated with AmB (Armour silt loam, 2 to 5 percent slopes) and AmC3 (Armour silt loam, 5 to 15 percent slopes). AmB soils are described as "among the most productive [for agriculture] in Davidson County" (U.S. Department of Agriculture 1981:9-10).

Climate

Cockrill Bend falls within a region characterized by generally temperate climatic conditions with distinct seasonal changes. Both winter and summer temperatures are relatively mild, falling between averages of 40 and 90 degrees Fahrenheit, but extremes well outside these averages are also common.

Annual precipitation, mostly in the form of rain, averages nearly 48 inches within the study area. Almost fifty percent of the precipitation falls between April and September, generally as steady showers in spring and fall, and periodic thunderstorms during early summer months. Although the floodplains of Cockrill Bend are regularly inundated, the study area is not generally subject to flooding.

Flora and Fauna

The study area falls within the Western Mesophytic Forest region (Braun 1950), and probably exhibited a forest community transitional between bottomland and dissected upland regions during the majority of the prehistoric periods in question. As typical of most first terraces of the Cumberland River within the Central Basin, the study area probably exhibited a wide variety of deciduous trees and associated flora with ready access to climax communities on both floodplain and upland areas.

The rich flora within the study area was matched by the diversity of the fauna represented within the Carolinian Biotic Province (Dice 1943). Although larger mammalian species such as elk and bear were probably relatively rare in the region, their absence was offset by plentiful populations of white-tailed deer and small to medium-sized mammals such as raccoons, squirrels, rabbits, opossums, and groundhogs. Numerous bird species were plentiful within the region, and large portions of Cockrill Bend remain a sanctuary for hawks, owls, turkey, quail, and other species. The location of Cockrill Bend within secondary migratory corridors for waterfowl probably also provided seasonal access to important faunal resources. Finally, the Cumberland River, backwater sloughs, and swampy areas on Cockrill Bend provided habitat for numerous varieties of snakes, frogs, turtles, fish, and mollusks that were readily accessible to aboriginal inhabitants.

FIELD METHODS

Test excavations at each site were preceded by a surface survey to establish approximate site limits. Surface visibility was relatively high over the entire survey area because of recent cultivation and planting of winter wheat which was still immature at the time of initial survey. Light-to-moderate scatters of lithic material were observed at each of the four sites, and artifact distributions were used to establish general boundaries for the sites. Due to time restrictions, surface collections were limited to temporally diagnostic artifacts.

Once the site boundaries were defined, a grid system oriented to the cardinal directions was established. Test units were placed at intuitively selected locations to assess the site stratigraphy, determine if intact midden zones were present, and obtain controlled samples of artifacts

Where conditions warranted, a backhoe equipped with an approximate one-meter wide toothless bucket was employed to excavate exploratory trenches. Areas yielding evidence for subsurface features were further investigated using strip blocks of varying sizes. Transit mapping stations were established adjacent to excavated areas and tied into Cockrill Bend benchmark #5 (elevation 138.2 m AMSL; Figure 1).

ARTIFACT ANALYSIS

Flaked Lithic Artifacts

Chert tools and manufacturing debris comprised the vast majority of artifacts recovered during the 1990 investigations on Cockrill Bend. Unlike many chert assemblages from study area sites that exhibit minor quantities of Dover or other non-local chert materials, all recovered artifacts were manufactured from Fort Payne chert. This particular resource was readily available to Cockrill Bend inhabitants in gravel deposits along the Cumberland River. These flaked artifacts were analyzed and categorized using the following typological system:

Projectile point/knife: This category represents a functional grouping of bifaces interpreted as spear/dart/arrow points and/or knives. This type of artifact was typed according to morphological characteristics using previously established type names when possible (Cambron and Hulse 1975). A digital caliper was employed to obtain maximum metric

measurements for length, shoulder width, stem width, stem length and thickness where applicable and/or available.

Flakes: All unmodified flakes created during the manufacture and/or maintenance of chipped stone artifacts as evidenced by the presence of striking platforms or bulbs of percussion were assigned to this category. Flakes were classified as primary, secondary, or tertiary based on the amount of cortex remaining on the dorsal surface. Primary flakes display cortex over more than 20% of the dorsal face, whereas secondary flakes exhibit identifiable cortex over less than 20% of the dorsal face. Tertiary flakes display no cortex, but do exhibit a striking platform (lip).

Angular Debris: This type includes all lithic debitage failing to exhibit striking platforms, bulbs of percussion, or other direct evidence of lithic manufacture/maintenance. These fragments were probably generally produced as shattered fragments during the lithic reduction process.

Cores and Core Fragments: These artifacts include all primary source materials exhibiting regular patterns of flake removal (limited to three or more flake scars). Both cobbles and tabular forms are represented, and tabular forms may occasionally assume bifacial definition.

Bifaces: Chert fragments that are worked on more than one surface and are minimally shaped.

Unifaces: This artifact class includes all flakes exhibiting apparently deliberate reduction on either the dorsal or ventral face exclusively, presumably for use as a tool type. In addition to the primary categories, flakes and angular debris were further examined for evidence of tool use. Each of the flake and angular debris categories was further subdivided into a "utilized" category where edge attrition or use-wear was noted.

Other Lithic Artifacts

Artifacts made of chert comprised the vast majority of stone artifacts from the four sites. However, one steatite bowl sherd was recovered from a 40DV68 pit feature (see 40DV68 section for further discussion). Steatite comprises a metamorphic resource from the Appalachian Mountain chain east of the study area. Additional unmodified lithic items retrieved during the investigations were made of quartz, shale, limestone, sandstone (or abrasive siltstone), and hematite. Although unmodified, these particular items likely represent manuports obtained by site inhabitants from outcrops and gravel deposits within the immediate area.

Ceramic Artifacts

Ceramics were initially sorted on the basis of temper type and paste. These characteristics are generally representative of broad chronological periods for Middle Tennessee. The sherds were then further subdivided on the basis of surface treatment and special diagnostic modes. Where possible, vessel forms have been identified and compared to appropriate samples from the region.

Faunal Remains

Faunal remains were recovered only from site 40DV68. The number of individual specimens (NISP) and minimum number of individuals (MNI) tabulations are presented according to taxonomic class, genera, and species where possible. Specimens were further examined for evidence of burning, cut marks, or other modifications.

Floral Remains

Only 40DV68 yielded botanical remains in substantive quantities. The floral specimens were tabulated by weight and count according to genera and species where possible, and further subdivided into wood charcoal, varieties of wild seed and fruit, and cultigens.

Soil Samples

Soil samples were retained from all test units and large feature contexts. Two liters of each soil sample was processed through two geological screens (9.52 and 4.699 mm mesh filters) into 1/16" fiberglass screen. The residue was then submerged, with suspended organics recovered in a 0.074 mm geological screen.

Radiocarbon Dating

Carbonized wood samples were routinely retained when available. Three samples from 40DV68 feature contexts were submitted for standard radiocarbon assay to the Radiocarbon Laboratory at the University of Texas (Austin). The assay results are reported in the 40DV68 site discussion.

SITE 40DV64

Site Setting and Description

Tennessee Division of Archaeology staff recorded site 40DV64 during a reconnaissance survey of Cockrill Bend in 1977 (Butler 1977). The site is located on a projecting point of the first terrace approximately 300 meters from the Cumberland River in Cockrill Bend, Davidson County, Tennessee (see Figure 1).

Projectile points recovered from this locale during the 1977 survey included two Cyprus Creek II (Early Archaic), one Cotaco Creek (Late Archaic/Woodland), and one Wade variant (Late Archaic/Woodland). Other prehistoric artifacts included a uniface scraper, 10 bifacial implements, and 75 flakes. Two historic artifacts, including singular pieces of pearlware and glass, were also recovered from the western edge of the site where a dark surface stain was observed. This dark stain approximates the location of a barn shown on the 1966 topographic map (see Figure 1).

The 1990 investigations revealed a light scatter of lithic material over an area measuring approximately 100 m x 125 m. Following definition of the site area, eleven 1x1 m and three 2x2 m test units were excavated (Figure 2). Artifacts recovered from these units were limited to the plowzone, with no evidence for intact midden deposits.

A series of exploratory backhoe trenches were then placed across the site to determine if features were present beneath the plowzone. Twelve features were observed in sterile subsoil, of which only five proved of probable cultural origin. Cultural features are described in the following section.

Feature Descriptions

Feature 5

Provenience: Backhoe Trench H.

Type: Posthole remnant.

Plan view/dimensions: Circular, 21-22 cm in diameter.

Profile: Conical.

Depth: 28 cm.

Associated artifacts: None.

Feature 8

Provenience: Backhoe Trench E.

Type: Posthole remnant.

Plan view/dimensions: Oval, 16 cm east-west (E-W), 14 cm north-south (N-S).

Profile: Conical.

Depth: 26 cm.

Associated Artifacts: Two tertiary flakes, one grit-tempered sherd.

Feature 9

Provenience: Backhoe Trench F.

Type: Posthole remnant.

Plan view/dimensions: Circular, 34-36 cm in diameter.
Profile: Conical.
Depth: 59 cm.
Associated artifacts: One tertiary flake, nutshell fragments.

Feature 10

Provenience: Backhoe Trench A.
Type: Posthole?
Plan view/dimensions: Circular, 31-34 cm in diameter.
Profile: Constricted towards a flat bottom.
Depth: 40 cm.
Associated artifacts: Secondary flakes, tertiary flakes, angular debris.

Feature 11

Provenience: Strip Block 1.
Type: Pit.
Plan view/dimensions: Circular-oval, 160 cm E-W, 140 cm N-S.
Profile: Shallow basin shaped.
Depth: 9 cm.
Associated artifacts: Core, decortication flakes, grit-tempered sherds.
Remarks: Faint indentations and gouged cavities possibly indicative of digging sticks.

Artifact Descriptions

Lithic Artifacts

Of the 3,151 total artifacts from the site, the vast majority were lithics recovered from surface collections and excavated units (with lesser contributions from features; Table 1). All diagnostic projectile points were recovered from surface collections, preventing any substantial interpretation of contextual relationships.

Eight projectile points were recovered at 40DV64. Where possible, projectile points were assigned to previously named types, including a Kirk Corner Notched variant, Bakers Creek, and Wade. The sample also included four projectile points that were assigned to provisional categories described in greater detail below.

Kirk Corner Notched Variant (n=1; Figure 3A)

Metric attributes (in mm):

<i>Length:</i>	20.94
<i>Stem Width:</i>	19.46
<i>Thickness:</i>	7.81

Cross-section: Bi-convex

Remarks: Basal edge lightly ground.

Bakers Creek (n=1; Figure 3B)

Metric attributes (in mm):

<i>Length:</i>	30.21
<i>Stem Width:</i>	13.34

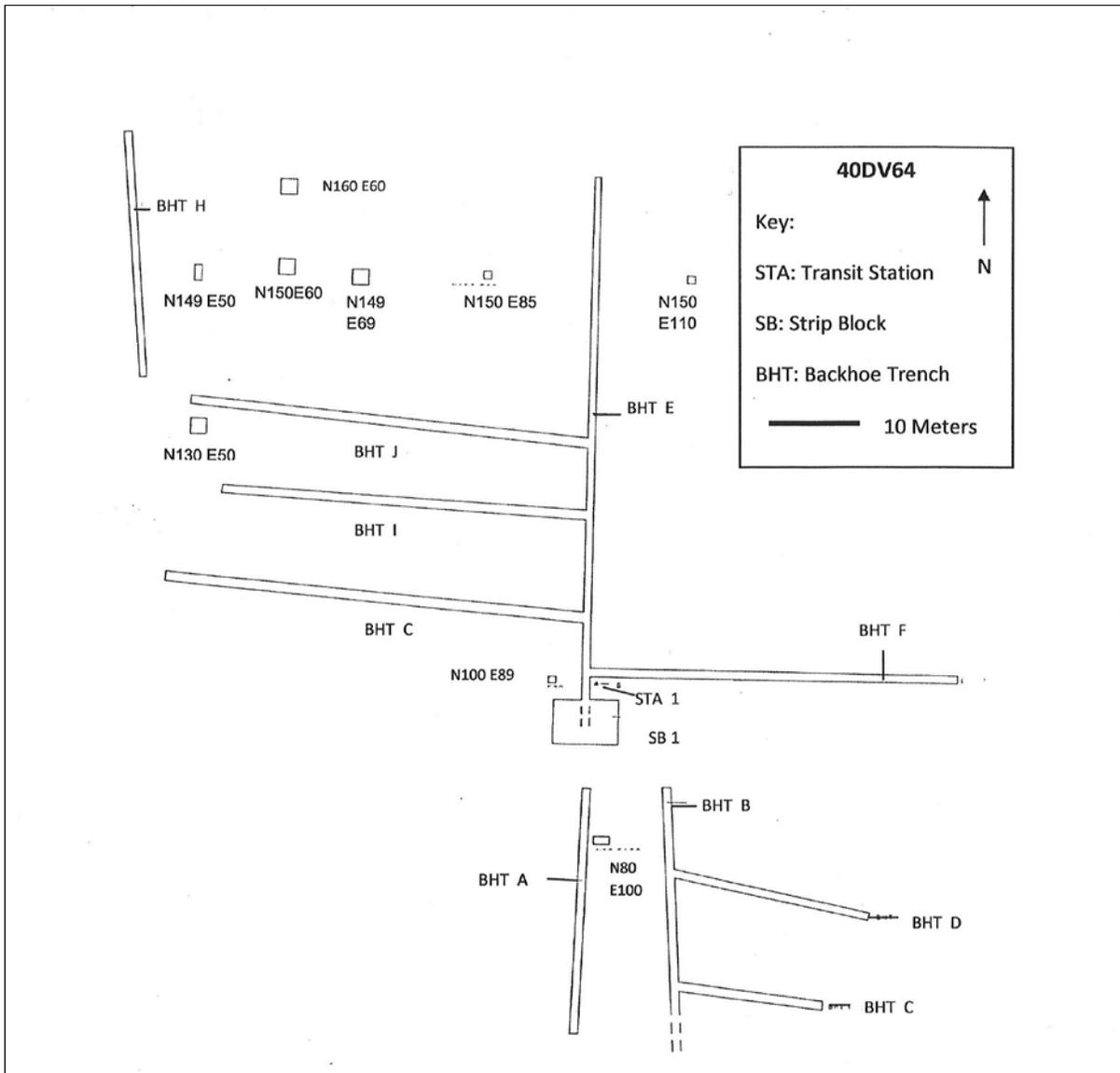


Figure 2. Excavation plan, site 40DV64.

Stem Length: 11.01
Shoulder Width: 19.05
Thickness: 7.42

Cross-section: Bi-convex

Wade (n=2; Figure 3C)

Metric attributes (in mm):

Length: 28.14 (mean)
Stem Width: 12.56 (mean)
Stem Length: 9.21 (mean)
Shoulder Width: 34.82 (n=1)
Thickness: 8.18 (mean)

Cross-section: Bi-convex (n=1); flattened (n=1)

Remarks: Expanded rounded stem (n=1); slightly constricted stem (n=1).

Category 1 (n=1; Figure 3D)

Metric attributes (in mm):

Length: 34.59
Stem Width: 23.92
Stem Length: 16.47
Shoulder Width: 20.67
Thickness: 7.37

Remarks: Shallow-side notched, expanded stem point similar to Bakers Creek. Distal end was reworked into a drill, with bit polish along median ridge and distal tip. Probably an Early to Middle Woodland artifact.

Category 2 (n=1; Figure 3E)

Metric attributes (in mm):

Length: 31.63
Base Width: 17.15
Thickness: 6.83

Remarks: Small triangular projectile point with a rounded base. Similar to Normandy Type 51, which was interpreted as a Woodland type (Faulkner and McCollough 1974:93).

Category 3 (n=1; Figure 3F)

Metric attributes (in mm):

Length: 48.90
Stem Width: 11.40
Stem Length: 14.20
Shoulder Width: 26.10
Thickness: 8.84

Cross-section: Bi-convex

Remarks: Small-to-medium sized, contracting stem with asymmetrical blade edges. These characteristics are similar to the Gary point (Cambron and Hulse 1975:57) and may represent a variant of that type. A Late Archaic/Woodland association is suggested for this point.

Category 4 (n=1; Figure 3G)

Metric attributes (in mm):

Length: 37.20

Stem Width: 12.18
Stem Length: 19.19
Shoulder Width: 19.15
Thickness: 7.47

Cross-section: Bi-convex to flattened

Remarks: Small to medium-sized, narrow stemmed projectile point. An impact fracture and subsequent resharpening have strongly modified the original form, but the point is similar to Class 12 found within the Bear Creek Watershed considered to be a Late Archaic/Woodland type (Futato 1983:243).

Ceramic Artifacts

Sixteen prehistoric ceramic sherds (15 grit-tempered, 1 shell-tempered) were recovered from test units and backhoe trench excavations at site 40DV64. Although temper type was assessable, form or surface treatment could not be determined due to insufficient size. Based on the lithic diagnostics from the site, the grit-tempered ceramics are probably attributable to an Early Woodland occupation. The singular shell-tempered sherd suggests the possibility of a minimal use of the area during the Mississippian period, but the sherd may also have been imported to the site (via tractor tires or other means) from nearby Mississippian occupations. No other comments can be offered given the limited sample available.

Historic Artifacts

A total of 55 historic artifacts (including glass, nails, coal, and lead) was recovered from the 1990 excavations at site 40DV64. These date to twentieth century occupations, and are probably associated with the former barn indicated on the 1966 topographic map.

Discussion

Temporally diagnostic artifacts collected from survey and test investigations suggest ephemeral use of the site area during the Early Archaic and Late Archaic/Early Woodland periods. A singular shell-tempered sherd indicates a potential visit to the site area during the Mississippian period. Primary, albeit ephemeral, use of the site area appears to be restricted to the Late Archaic/Early Woodland period based on the lithic and ceramic artifacts.

The eleven 1x1 meter and three 2x2 meter test unit results indicated the site was heavily deflated with no evidence for intact midden deposits. The backhoe trenches (approximately 324 square meters) yielded five prehistoric features and numerous deep plow scars. Long-term plowing and subsequent erosion have largely destroyed the cultural deposits at 40DV64.

Provenience	Feat	Proj		Core	Bfc	Unif	Pri	Flk	Secnd	Tertry	Anglr	Qtz	Shale	Lmst	Pottery	Nail	Glass	Coal	Lead	TOTALS
		Pnt	Pnt																	
Surface	-	4	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	8
N080E100	-	-	-	-	-	2	3	2	87	187	-	-	-	4	1	-	-	11	-	295
N080E101	-	-	-	-	-	3	-	8	111	297	2	-	-	6	-	3	1	10	-	441
N100E089	-	-	-	-	-	1	2	14	54	90	-	-	-	4	-	-	-	10	-	175
N130E050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
N149E050	-	1	3	4	-	-	5	18	177	269	-	-	-	4	-	8	2	4	1	496
N149E069	-	-	1	1	-	-	4	13	94	148	-	-	-	-	-	-	-	-	-	261
N149E070	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
N150E050	-	1	2	3	1	1	6	27	208	329	1	1	2	-	-	-	1	1	-	583
N150E060	-	1	2	4	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	10
N150E069	-	-	1	3	1	-	-	9	85	117	-	-	-	-	1	-	-	-	-	217
N150E070	-	1	2	3	-	-	6	-	109	149	-	-	-	-	1	-	-	-	-	271
N150E085	-	-	-	-	-	-	4	4	29	50	-	-	-	6	-	1	2	-	-	96
N150E110	-	-	-	-	-	-	5	2	28	86	-	1	4	-	-	-	-	-	-	127
N160E060	-	-	1	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	3
N150E070	1	-	-	-	-	-	-	1	3	3	-	-	-	-	-	-	-	-	-	7
N150E060	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
BHT-B	3	-	-	-	-	-	1	2	1	-	-	-	-	-	-	-	-	-	-	4
BHT-H	4	-	-	-	-	-	2	1	4	7	-	-	-	-	-	-	-	-	-	14
BHT-H	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
BHT-H	6	-	-	-	-	-	3	-	37	43	-	-	-	-	-	-	-	-	-	83
BHT-G	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
BHT-E	8	-	-	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	3
BHT-F	9	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
BHT-A	10	-	-	-	-	-	-	2	8	6	-	-	-	-	-	-	-	-	-	16
SB-1	11	-	1	-	-	-	-	1	16	10	-	-	-	-	12	-	-	-	-	40
BHT-I	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
TOTALS		8	13	26	4	41	106	1055	1792	3	2	30	16	12	6	36	1	3151		

Table 1. Artifact Assemblage, Site 40Dv64.

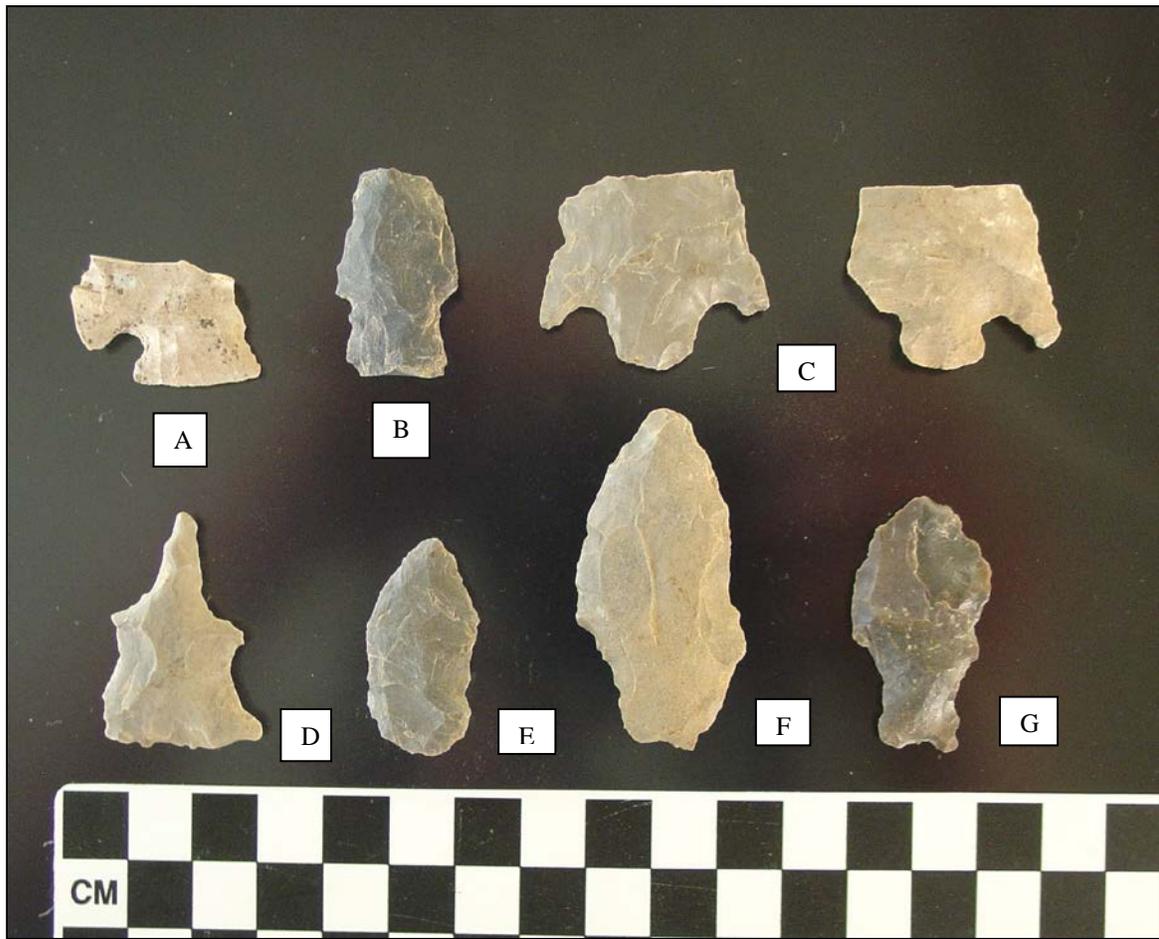


Figure 3. Projectile Points, site 40DV64. (A) Kirk Corner-Notched Variant, (B) Bakers Creek, (C) Wade, (D) Category 1, (E) Category 2, (F) Category 3, (G) Category 4.

SITE 40DV65

Site Description and Setting

Site 40DV65 is located on a first terrace approximately 300 meters from the Cumberland River in Cockrill Bend (see Figure 1). Initial surveys (Butler 1977) recorded a moderate lithic scatter over a 200-meter by 75-meter area. Materials from the 1977 surface collection included two stemmed projectile points (Late Archaic), three bifacial implements, one scraper, and seventy-five pieces of debitage.

The 1990 re-survey defined a light lithic scatter covering an approximate 100-meter by 75-meter area. Eight 1x1 m units were excavated, yielding a light to moderate amount of cultural material restricted to the plowzone. The plowzone varied in depth across the site between 18 and 36 cm, and was immediately underlain by yellow-orange subsoil in all units. No intact cultural deposits or features were encountered during testing.

Artifact Descriptions

Lithic Artifacts

Test excavations and surface collections recovered primarily prehistoric lithic materials along with some historic glass, coal, and ceramics. The lithic assemblage included three projectile points (Table 2).

Benton Extended Stemmed (n=1; Figure 4A)

Metric attributes (in mm):

<i>Length:</i>	45.69
<i>Stem Width:</i>	18.50
<i>Stem Length:</i>	16.49
<i>Shoulder Width:</i>	25.48
<i>Thickness:</i>	7.99

Cross-section: Bi-convex-flattened

Adena Narrow Stemmed (n=1; Figure 4B)

Metric attributes (in mm):

<i>Length:</i>	58.70
<i>Stem Width:</i>	17.09
<i>Stem Length:</i>	18.54
<i>Shoulder Width:</i>	26.61
<i>Thickness:</i>	10.75

Remarks: Medium-sized point exhibiting a long rounded stem and light grinding on all hafting area.

Historic Artifacts

A total of 11 historic artifacts (glass, coal, and ceramics) were recovered from the 1990 excavation units. These materials are attributed to a general use of the project area for occasional trash disposal by the existing prison facilities and farming operations.

Table 2. Artifact Assemblage, Site 40DV65.

Provenience	Proj Pnt	Cor	Bfc	Prim Flk	Secd Flk	Tert Flk	Ang Dbr	Lmst	Glass	Coal	Pottery	TOTALS
Surface	1	-	1	-	1	-	-	-	-	-	-	3
Unit 1	-	-	-	-	5	9	20	-	-	-	-	34
Unit 2	1	-	-	2	2	7	25	-	1	4	-	42
Unit 3	-	-	-	-	2	13	15	-	-	2	-	32
Unit 4	-	-	1	-	1	20	19	1	-	-	-	42
Unit 5	-	-	1	-	-	14	21	1	-	-	1	38
Unit 6	-	-	-	1	2	13	43	-	-	1	-	60
Unit 7	1	-	1	-	-	9	20	-	-	-	-	31
Unit 8	-	2	-	1	1	10	38	1	-	2	-	55
TOTALS	3	2	4	4	14	95	201	3	1	9	1	337

Proj Pnt=Projectile Point; Cor=Core; Bfc=Biface; Prim Flk=Primary Flake; Secd Flk=Secondary Flake; Tert Flk=Tertiary Flake; Ang Dbr=Angular Debris; Lmst=Unmodified Limestone.



Figure 4. Projectile points, site 40DV65: (A) Benton Expanded Stemmed; (B) Adena Narrow Stemmed.

Discussion

Archaeological investigations of site 40DV65 revealed a light to moderate scatter of cultural material restricted to the plowzone. No intact midden deposits or cultural features were discovered. Four diagnostic artifacts have been recovered from the site, including two stemmed Late Archaic points in 1977, and the Benton Extended Stemmed and Adena Narrow Stemmed projectile points from the 1990 work. These projectile points suggest a relatively ephemeral use of the site area during the Late Archaic and Early Woodland periods. Similar to site 40DV64, the cumulative effects of intensive agricultural practices and subsequent erosion have destroyed the integrity of the archaeological deposits.

SITE 40DV67

Site Setting and Description

Site 40DV67 was recorded on the third terrace approximately 900 meters from the Cumberland River (see Figure 1). The 1977 survey of Cockrill Bend defined a sparse lithic scatter over a 150-meter by 60-meter area, and yielded a single Late Archaic stemmed projectile point.

Surface surveys in 1990 suggested a working boundary of about 50 meters by 75 meters containing a light scatter of lithic debris. Excavation of three 1x1 m test units indicated a shallow plowzone terminating in sterile yellow-orange subsoil between 14.5 cm and 26 cm below surface. No evidence for midden deposits or sub-plowzone features was noted in the test units.

Artifact Descriptions

Lithic Artifacts

The 48 lithic artifacts recovered during the excavations comprise virtually the entire recovered assemblage. The exception was a single glass fragment. The lithic assemblage included three projectile points, three bifaces, three cores, and 39 pieces of debitage (Table 3). No artifacts were retrieved from Unit 3.

Category 1 (n=1; Figure 5A)

Metric attributes (in mm):

<i>Length:</i>	45.20
<i>Stem Length:</i>	12.56
<i>Shoulder Width:</i>	24.01
<i>Thickness:</i>	8.01

Cross-section: Flattened

Remarks: Small to medium-sized, shallow side-notched projectile point with a slightly excurvate blade. Similar in most respects to the Early to Middle Woodland Bakers Creek projectile point.

Category 2 (n=1; Figure 5B)

Metric attributes (in mm):

<i>Length:</i>	26.56
<i>Stem Width:</i>	17.20
<i>Stem Length:</i>	8.98
<i>Shoulder Width:</i>	22.73
<i>Thickness:</i>	8.15

Cross-section: Bi-convex

Remarks: Small to medium-sized, shallow side-notched projectile point with a lightly ground basal edge. Specimen is similar to Coosa Side Notched, and probably reflects a Middle Woodland type.

Category 3 (n=1; Figure 5C)

Metric attributes (in mm):

Length: 43.59
 Stem Length: 7.23
 Shoulder Width: 25.67
 Thickness: 9.28

Cross-section: Bi-convex.

Remarks: Medium sized, straight stemmed projectile point. Similar to Normandy type 99, which was considered a Late Archaic type (Faulkner and McCollough 1973:119).

Historic Artifacts

A single fragment of glass represents the only historic period artifact recovered from 1990 investigations at 40DV67.

Discussion

Test excavations at 40DV67 revealed a light scatter of lithic waste restricted to the plowzone. No intact midden or subsurface features were observed. The three projectile points suggest ephemeral occupations during the Late Archaic and Middle Woodland periods.

Table 3. Artifact Assemblage, Site 40DV67.

Provenience	Proj Pnt	Cor	Bfc	Unfc	Secd Flk	Tert Flk	Ang Dbr	Glass	TOTALS
Surface	3	2	2	-	-	-	-	-	7
Unit 1	-	-	-	-	2	4	10	1	17
Unit 2	-	1	-	1	1	4	16	-	23
TOTALS	3	3	2	1	3	8	26	1	47

Proj Pnt=Projectile Point; Cor=Core; Bfc=Biface; Unfc=Uniface; Secd Flk=Secondary Flake; Tert Flk=Tertiary Flake; Ang Dbr=Angular Debris.

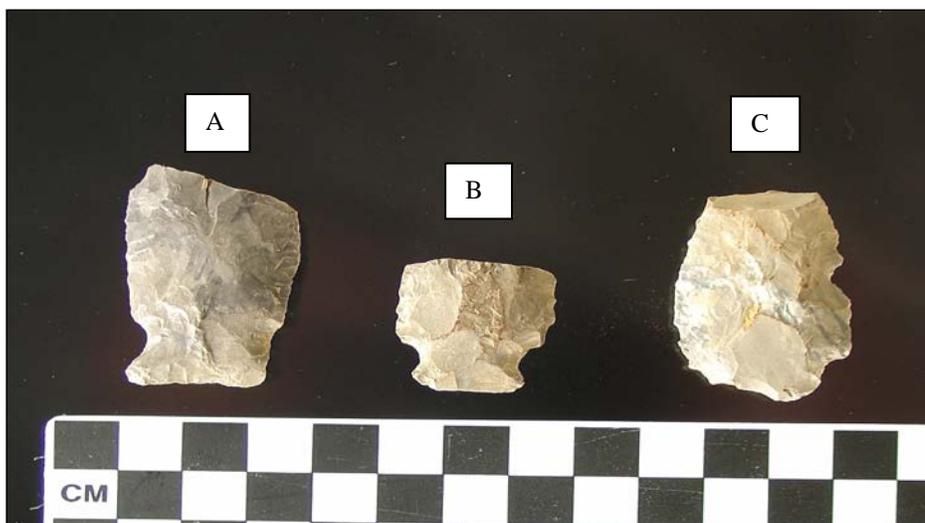


Figure 5. Projectile points, site 40DV67: (A) Bakers Creek; (B) Coosa Side-Notched; (C) Normandy Type 99.

SOGOM SITE, 40DV68

Site Setting and Description

A summary article of the Sogom site was published in the Tennessee Archaeology e-journal (Norton and Broster 2004). 40DV68 occurs on a projecting point of the first terrace about 400 meters from the Cumberland River (see Figure 1). Previous surveys recorded a roughly 150-meter by 60-meter area containing a moderate scatter of lithic materials. Artifacts from the 1977 survey included one corner-notched projectile point (Early Archaic), one shallow side-notched projectile point (Late Archaic/Woodland), a biface, and 40 pieces of debitage.

Additional examination of the area in 1990 under better conditions of surface visibility expanded the site boundaries to roughly 300 meters by 100 meters. Impending construction deadlines and the relatively larger size of the site prompted the use of backhoe trenches to rapidly assess the horizontal site limits. Profiles indicated a consistent 20-25 cm thick plowzone composed of brownish organic silt overlying sterile brownish-orange silt clay subsoil. No intact midden deposits were observed. Backhoe trench and strip-block excavations revealed 57 subsoil anomalies/stains, with 33 subsequently determined to be of cultural origin (Figure 6).

Feature Descriptions

Excavations at 40DV68 yielded a variety of cultural features that included a human burial, postholes, basin-shaped pits (Figures 7 and 8), bell-shaped pits, elongated pits, and straight-sided pits. One structure was also defined (Figure 9).

Feature 1

Provenience: Backhoe Trench A.

Type: Small pit.

Plan view/dimensions: Roughly circular, 45 cm N-S, 48 cm E-W.

Profile: Bell-shaped.

Point of origin: 132.12 m AMSL.

Depth: 24 cm.

Associated artifacts: Lithics, charred nutshell fragments.

Feature 4

Provenience: Strip Block 1.

Type: Pit? (truncated).

Plan view/dimensions: Slightly ovate, 61 cm E-W, 70 cm N-S.

Profile: Too shallow to determine.

Point of origin: 132.25 m AMSL.

Depth: 2.5 cm.

Associated artifacts: Lithics; charcoal flecks, mineral concretions.

Remarks: Truncated by plowing.

Feature 5 (Burial 1)

Provenience: Strip Block 1.

Type: Elongated burial pit.

Plan view/dimensions: 123 cm E-W; 72 cm N-S.

Profile: Ovate.

Point of origin: 132.38 m AMSL.

Depth: 28 cm.

Associated artifacts: Human skeleton, Jacks Reef Corner Notched Cluster projectile point, grit tempered ceramics, charred wood, and nutshell.

Remarks: Burial 1 was initially identified as a large elongated stain of medium brown, silty loam. The southern half was excavated, revealing very fragmentary, poorly preserved human skeletal remains. The remainder of the feature was excavated and waterscreened through 1/4" and 1/16" hardware mesh and floated to ensure maximum recovery.

This burial contained an individual in a semi-flexed position, oriented on an east-west axis with the head towards the west. Although the remains were very poorly preserved and could not be retrieved in sufficient condition for detailed evaluation, fully erupted third molars suggest a minimal age of 18 years (Bass 1971:223).

Although none of the artifacts recovered from the feature appear to represent intentionally placed grave goods, diagnostic artifacts included a Jacks Reef Corner Notched Cluster projectile point and several small eroded grit-tempered sherds (see artifact descriptions). In addition, a moderate amount of charred wood and nutshell fragments were recovered. A sample of charred wood was radiocarbon dated at an uncorrected 1250 ± 90 BP (Tx-7003). Corrected date ranges at two standard deviations (Stuiver and Becker 1986) are AD 630[772]980, corresponding with proposed ranges for the Jack's Reef Corner Notched Cluster. Based on these data, the burial probably dates to the Terminal Middle Woodland or Late Woodland period. Unfortunately, the associated ceramics are too fragmentary to provide information beyond the suggestion that grit-tempered ceramics were present at this time frame or earlier.

The burial was removed under a court order issued by the Chancery Court of Davidson County. Following analysis, designated representatives of Tennessee's Native American community reburied the remains on July 30, 1993 on Cockrill Bend.

Feature 6

Provenience: Strip Block 2.

Type: Pit.

Plan view/dimensions: Circular, 40 cm N-S, 44 cm E-W.

Profile: Basin?

Point of origin: 132.19 m AMSL.

Depth: 11 cm.

Associated artifacts: Lithics, charcoal, burned bone, fiber-tempered (?) sherd.

Feature 7

Provenience: Strip Block 2.

Type: Pit.

Plan view/dimensions: Roughly circular, 65 cm N-S, 71 cm E-W.

Profile: Shallow basin.

Point of origin: 132.29 m AMSL.

Depth: 10 cm.

Associated artifacts: Flakes, sandstone.

Feature 9

Provenience: Strip Block 2.

Type: Pit.

Plan view/dimensions: Roughly circular, 91 cm E-W, 80 cm N-S.

Profile: Basin.

Point of origin: 132.26 m AMSL.
Depth: 35 cm.
Associated artifacts: Lithic debitage, charred nutshell.

Feature 10

Provenience: Strip Block 2.
Type: Posthole? (truncated).
Plan view/dimensions: Irregular, 40 cm E-W, 36 cm N-S.
Profile: Irregular tapering to a conical base.
Point of origin: 132.11 m AMSL.
Depth: 29 cm.
Associated artifacts: Lithics.

Feature 11

Provenience: Strip Block 2.
Type: Posthole.
Plan view/dimensions: Irregular, 16 cm E-W, 14 cm N-S.
Profile: Irregular tapering to a conical base.
Point of origin: 132.30 m AMSL.
Depth: 18 cm.
Associated artifacts: None.

Feature 12

Provenience: Strip Block 2.
Type: Posthole.
Plan view/dimensions: Circular, 18 cm E-W, 17 cm N-S.
Profile: Conical.
Point of origin: 132.27 m AMSL.
Depth: 26 cm.
Associated artifacts: None.

Feature 13

Provenience: Strip Block 3.
Type: Elongated pit
Plan view/dimensions: Ovate, 176 cm E-W, 70 cm N-S.
Profile: Ovate.
Point of origin: 132.28 m AMSL.
Depth: 47 cm.
Associated artifacts: Woodland projectile point (Figure 10A), lithic debitage.
Remarks: Located near and very similar to Feature 5 (Burial 1). The absence of skeletal remains (particularly teeth) suggests this feature was not a burial pit. The northern half was irregularly shaped and contained several lenses of charcoal, probably resulting from intrusive tree roots.

Feature 14

Provenience: Strip Block 2.
Type: Pit.
Plan view/dimensions: Circular, 69 cm E-W, 64 cm N-S.
Profile: Oval with flat-bottom.
Point of origin: 132.30 m AMSL.

Depth: 51.5 cm.

Associated artifacts: Burned bone, burned clay, charred nutshell, projectile points (Figures 10E, 11A, 11B), steatite bowl fragment.

Remarks: This pit was stratified into an upper and lower zone. The upper level (ca. 32 cm thick) was comprised of a medium-dark brown, sandy loam, and contained burned bone, charcoal flecks, burned clay, charred nutshell, and a Category 6 type projectile point (Figure 10E). A small basin shaped (25 cm in diameter) whitish clay deposit was encountered in the southeastern portion of this level.

The upper level graded into a lower level (ca. 19.5 cm thick) of dark brownish-black, greasy fill containing charcoal, charred nutshell, charred seeds, calcined bone, and unburned bone. This level also contained a Kirk Serrated (Figure 11A), Kirk Corner Notched variant (Figure 11B), and a steatite bowl fragment. A sample of charred wood from the lower level yielded an uncorrected radiocarbon date of 6590 ± 90 BP (Tx-7002).

Feature 15

Provenience: Strip Block 1.

Type: Pit.

Plan view/dimensions: Irregular, 87cm N-S, 84 cm E-W.

Profile: Basin-shaped.

Point of origin: 132.47 m AMSL.

Depth: 21.5 cm.

Associated artifacts: Lithic material, charred nutshell.

Feature 20

Provenience: Strip Block 2.

Type: Pit.

Plan view/dimensions: Roughly circular, 41 cm E-W, 37 cm N-S.

Profile: Basin-shaped.

Point of origin: 132.31 m AMSL.

Depth: 13.5 cm.

Associated artifacts: Projectile point (Figure 11G), debitage.

Feature 21

Provenience: Strip Block 2.

Type: Pit.

Plan view/dimensions: Circular, 47 cm E-W, 41 cm N-S.

Profile: Basin shaped.

Point of origin: 132.28 m AMSL.

Depth: 20 cm.

Associated artifacts: Lithics, charred nutshell, charred tubers.

Feature 24

Provenience: Strip Block 4.

Type: Posthole.

Plan view/dimensions: Circular, 25 cm E-W, 25 cm N-S.

Profile: Constricted base.

Point of origin: 130.96 m AMSL.

Depth: 11.5 cm.

Associated artifacts: Lithic flakes.

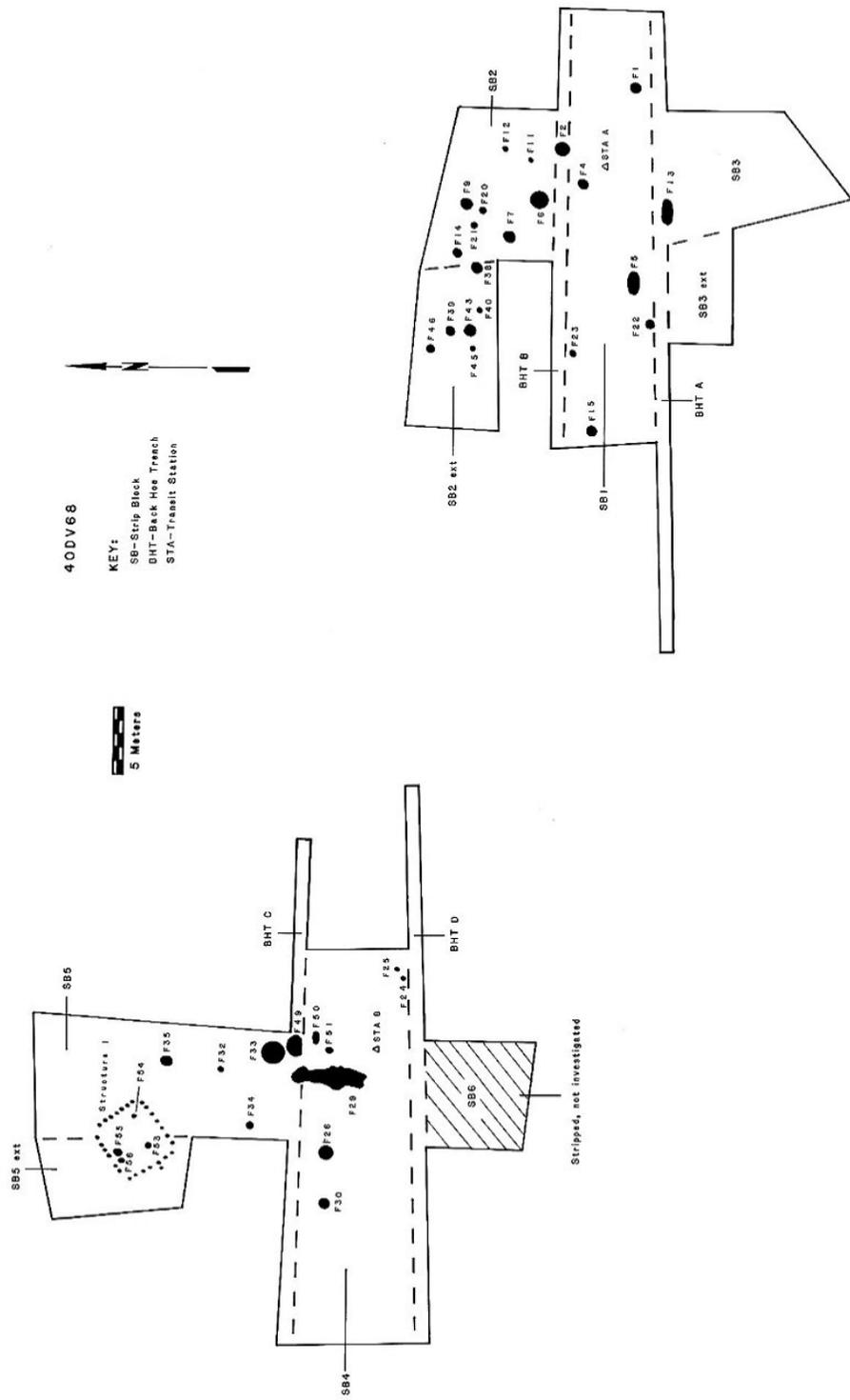


Figure 6. Excavation plan, site 40DV68.

Feature 25

Provenience: Strip Block 4.

Type: Posthole.

Plan view/dimensions: Oval, 23 cm E-W, 16 cm N-S.

Profile: Constricted base.

Point of origin: 130.93 m AMSL.

Depth: 8 cm.

Associated artifacts: Chert flakes.

Feature 26

Provenience: Strip Block 4.

Type: Hearth/fire pit.

Plan view/dimensions: Circular, 78 cm N-S, 72 cm E-W.

Profile: Basin shaped.

Point of origin: 130.64 m AMSL.

Depth: 18 cm.

Associated artifacts: Lithics, daub.

Remarks: Burned earth along the walls and base suggest the feature functioned as a hearth or fire pit.

Feature 29

Provenience: Strip Block 4.

Type: Pit (?)

Plan view/dimensions: Elongated irregular, 607 cm N-S, 202 cm E-W.

Profile: Basin shaped (?)

Point of origin: 130.70 m AMSL.

Depth: 17cm.

Associated artifacts: Charcoal flecks, burned limestone, mussel shell, shell artifacts, faunal remains, shell-tempered ceramics, lithics.

Remarks: The feature was very large and irregularly shaped. Two possible explanations can be offered: (a) a badly eroded shallow excavated pit; or (b) more likely, a shallow natural depression expediently used for trash disposal.

Feature 30

Provenience: Strip Block 4.

Type: Pit.

Plan view/dimensions: Circular, 53 cm N-S, 51 cm E-W.

Profile: Basin shaped.

Point of origin: 130.52 m AMSL.

Depth: 10 cm.

Associated artifacts: Calcined bone, one primary flake.

Feature 32

Provenience: Strip Block 5.

Type: Posthole.

Plan view/dimensions: Circular, 34 cm N-S, 32 cm E-W.

Profile: Conical.

Point of origin: 130.46 m AMSL.

Depth: 42 cm.

Associated artifacts: Flakes.

Feature 33

Provenience: Strip Block 5.

Type: Pit.

Plan view/dimensions: Roundish-ovate, 165 cm N-S, 131 cm E-W.

Profile: Basin-shaped, flat bottomed.

Point of origin: 130.54 m AMSL.

Depth: 48 cm.

Associated artifacts: Shell-tempered ceramics, mussel shell, burned limestone, faunal remains.

Remarks: This feature was partially stratified, suggesting multiple episodes of deposition (Figures 7 and 8). Stratum 1 (ranging from 8-20 cm in thickness) consisted of a medium-dark brown silty loam interspersed with charred wood fragments. Artifacts within this stratum included shell-tempered ceramics (including a cordmarked jar shown in Figure 12) along with moderate amounts of mussel shell, burned limestone, and faunal remains.

Stratum 2 fill was similar to Stratum 1, but contained much heavier concentrations of mussel shell and burned limestone, and a somewhat lesser density of faunal remains. Stratum 2 also contained quantities of shell-tempered ceramics.

Stratum 3 consisted of a medium brown, highly organic, silt loam mottled with tannish-orange silty clay inclusions. Stratum 3 contained much lesser amounts of mussel shell and ceramics, and no burned limestone. The floor of the pit exhibited several small brown "pockets," presumably gouge marks from excavation.

All feature fill (except the two liter flotation sample) was water-screened through 1/4" and 1/16" hardware mesh to maximize recovery of small faunal elements. Two bifaces, lithic debitage, a projectile point (Figure 10D), and 59.4 kg (131 lbs) of limestone, mostly burned, was included in the fill. A charred wood sample yielded an uncorrected radiocarbon date of 930 ± 60 BP (Tx-6998).

Feature 34

Provenience: Strip Block 5.

Type: Posthole.

Plan view/dimensions: Circular, 30.5 cm N-S, 29 cm E-W.

Profile: Conical.

Point of origin: 130.46 m AMSL.

Depth: 35.5 cm.

Associated artifacts: Core, flakes.

Feature 35

Provenience: Strip Block 5.

Type: Pit.

Plan view/dimensions: Roughly circular, 61 cm N-S, 60 cm E-W.

Profile: Shallow, basin shaped.

Point of origin: 130.32 m AMSL.

Depth: 12 cm.

Associated artifacts: None.

Feature 38

Provenience: Strip Block 2.

Type: Pit.

Plan view/dimensions: Circular, 70 cm E-W, 69 cm N-S.

Profile: Vertical walls, flat bottom.

Point of origin: 132.32 m AMSL.

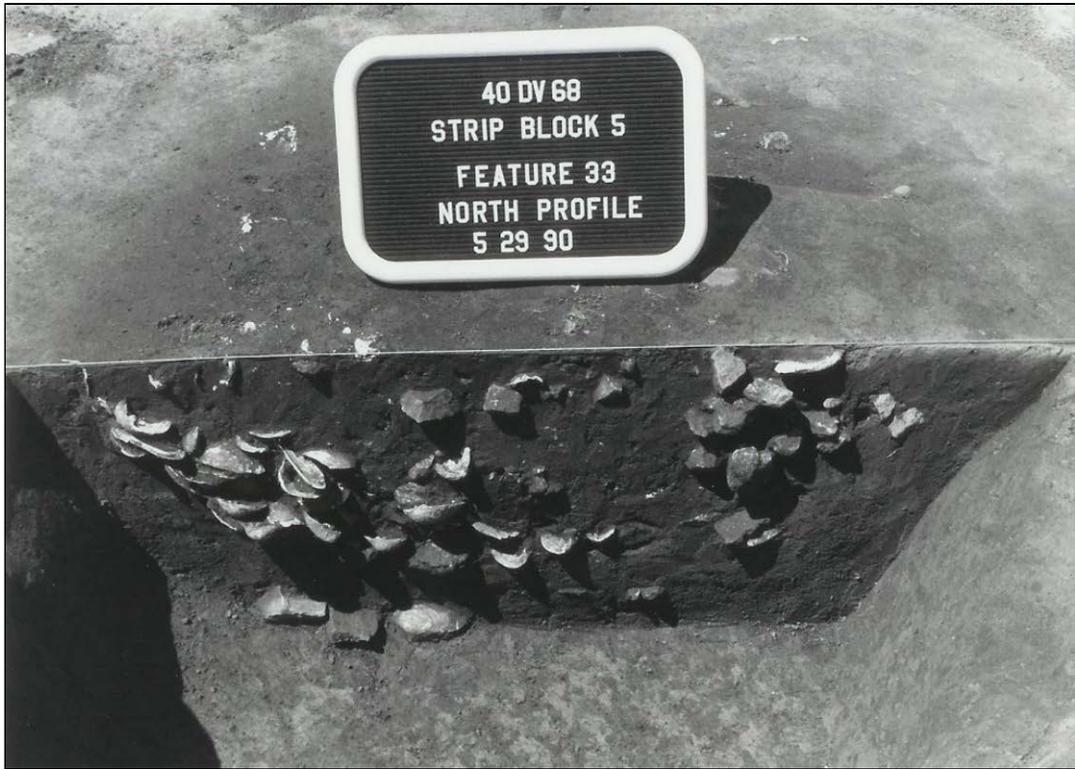


Figure 7. Feature 33, site 40DV68.

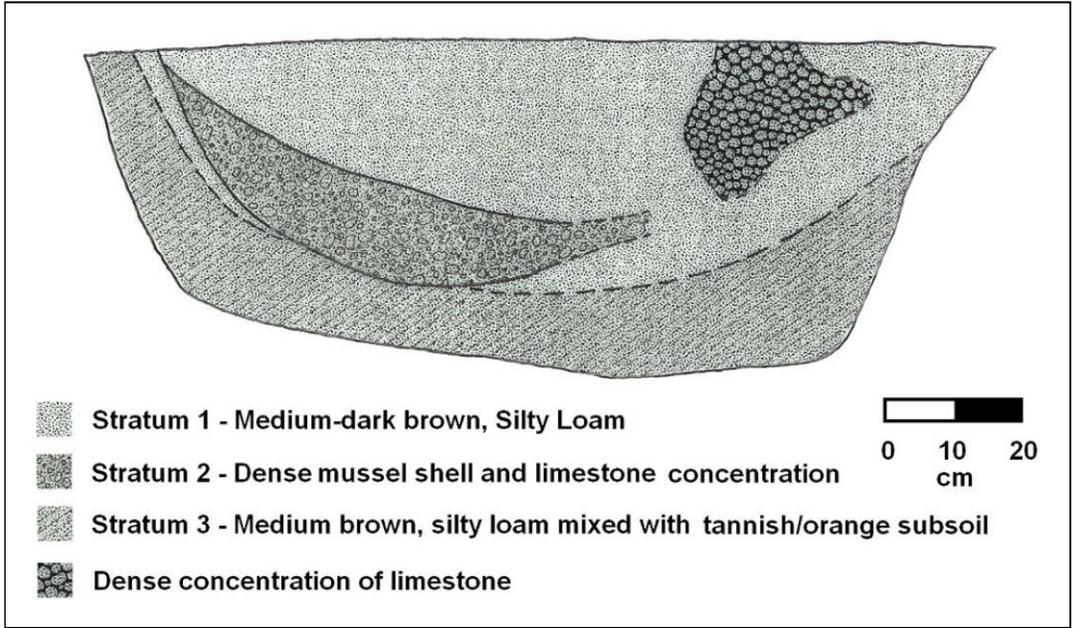


Figure 8. Feature 33 profile, site 40DV68.

Depth: 31 cm.

Associated artifacts: Lithic debitage, charred nutshell, burned bone, small shell-tempered ceramic sherds.

Feature 39

Provenience: Strip Block 2.

Type: Pit.

Plan view/dimensions: Irregular, 77 cm E-W, 64 cm N-S.

Profile: Basin shaped.

Point of origin: 132.38 m AMSL.

Depth: 25 cm.

Associated artifacts: Lithics, charred nutshell, burned bone.

Feature 43

Provenience: Strip Block 2.

Type: Pit.

Plan view/dimensions: Roughly circular, 71 cm N-S, 69 cm E-W.

Profile: Deep, straight-sided, flat bottom.

Point of origin: 132.41 m AMSL.

Depth: 62 cm.

Associated artifacts: Charred nutshell, seeds, and onion-like tubers.

Feature 49

Provenience: Strip Block 4.

Type: Pit cluster.

Plan view/dimensions: Irregular, 143 cm E-W, 130 cm N-S.

Profile: Conical pit superimposed over an irregular shaped pit.

Point of origin: 130.63 m AMSL.

Depth: 68 cm.

Associated artifacts: Lithics.

Remarks: During the final stages of the Feature 49 excavation, it became apparent that an original irregularly shaped pit (10 cm in depth) had been intruded by a conical feature approximately 63 cm in diameter and 68 cm in depth. Fill from these two features was not separable and artifacts were analyzed as a single unit.

Feature 50

Provenience: Strip Block 4.

Type: Pit.

Plan view/dimensions: Irregular oval, 98 cm E-W, 64 cm N-S.

Profile: Irregular basin.

Point of origin: 130.68 m AMSL.

Depth: 15 cm.

Associated artifacts: Mussel shell, faunal remains.

Feature 51

Provenience: Strip Block 4.

Type: Posthole.

Plan view/dimensions: Circular, 36 cm E-W, 35 cm N-S.

Profile: Conical.

Point of origin: 130.75 m AMSL.

Depth: 45 cm.

Associated artifacts: Lithic flakes, shell-tempered ceramics.

Feature 52.

Provenience: Strip Block 5 (Structure 1).

Type: Square structure with somewhat rounded corners.

Point of origin: 130.18 m AMSL.

Associated artifacts: See discussion section below.

Postholes: 27 exterior, diameter 10-18 cm (mean 13.8 cm); 2 interior: (see Features 53, 54).

Remarks: See discussion section below.

Feature 53

Provenience: Strip Block 5 (Structure 1).

Type: Interior posthole.

Plan view/dimensions: Circular, 39 cm E-W, 37.5 cm N-S.

Profile: Conical.

Point of origin: 130.23 m AMSL.

Depth: 20 cm.

Associated artifacts: Lithics.

Feature 54

Provenience: Strip Block 5 (Structure 1).

Type: Interior posthole.

Plan view/dimensions: Circular, 24 cm E-W, 21 cm N-S.

Profile: Conical.

Point of origin: 130.19 m AMSL.

Depth: 16 cm.

Associated artifacts: None.

Feature 55

Provenience: Strip Block 5 (Structure 1).

Type: Posthole? Pit?

Plan view/dimensions: Irregular, 73 cm E-W, 64 cm N-S.

Profile: Irregular.

Point of origin: 130.18 m AMSL.

Depth: 16 cm.

Associated artifacts: Lithics, botanical remains.

Remarks: This feature appears to be a possible support post superimposed over a pit feature.

Located just inside the north wall of Structure 1, the "pit" was intruded on the northwest portion by a possible posthole (16 cm diameter, 33 cm deep).

Feature 56

Provenience: Strip Block 5 (Structure 1).

Type: Pit.

Plan view/dimensions: Circular, 66 cm N-S, 65 cm E-W.

Profile: Shallow basin.

Point of origin: 130.18 m AMSL.

Depth: 11.5 cm.

Associated artifacts: Lithics, shale fragments.

Discussion of Structure 1 (Features 52-56)

While presenting a readily interpretable posthole pattern, other features generally expected to be associated with Mississippian period structures were not observed (Figure 9). The building was square with rounded corners and walls measuring 5.0 meters on a side. The east, south, and west walls exhibited seven evenly spaced posts, while the north wall exhibited only six. Spacing of posts suggests the likelihood that entryways were situated on the north wall, perhaps at the open corners.

No evidence for a hearth or hearth remnants was observed during stripping. Although this feature could have been completely obliterated through plowing, the presence of an exterior hearth (Feature 26) located some ten to twelve meters south of Structure 1 in association with several isolated postholes and pits suggests another possibility. The location of potentially associated processing facilities outside the structure provides some support for the interpretation of this structure as a "summer house" or "day station" used primarily during peak agricultural seasons. The absence of cane, stick, or thatch impressed daub from the structure area suggests two primary possibilities: (a) the structure was pole-and-thatch rather than wattle and daub; or (b) the daub was never sufficiently dried or fired (i.e. through burning of the structure) to be preserved in the archaeological record. In general, the available data would tend to suggest the former interpretation.

Similar to the isolated Mississippian structure at the Brandywine Pointe site, 40DV247, (Moore and Smith 1993; Smith and Moore 1994, 1996), Structure 1 does not exhibit any substantial evidence for renovation or rehabilitation. Oetalaar (1993) noted that "it is not unreasonable to suggest a life expectancy of 10 years for pole-and-thatch structures and 20 years for wattle-and-daub buildings." Although these estimates appear somewhat short for complete rebuilding episodes, some renovation of the structure would have been required within ten to fifteen years (presuming a pole and thatch structure), particularly if the structure were not in use during winter months (thus experiencing more substantial decay through seasonal neglect).

Making further presumptions that Features 29 and 33, ultimately used for the disposal of trash, are associated with the use of Structure 1, the artifact content would again lend some additional support for shorter-term occupation, and perhaps seasonality of use. The quantities of fish, frog, and turtle remains identified in Feature 33 fill, along with the general absence of charred nutshells strongly suggests that Feature 33 disposal episodes were primarily conducted during warmer months. The presence of several fishhooks and fishhook-manufacturing residue indicates that fishing was a primary occupation of the site occupants. In addition, the presence of several modified shells generally interpreted as shell hoes in the archaeological literature indicate that some light gardening work was being conducted on the site (Figure 13).

At the Lake George site, Williams and Brain (1983:282) noted that "function as a hoe, digger, or rake has been most often suggested for these artifacts, although they have also been considered ornamental or merely problematical. Use as a hoe, however, has the most currency and is further supported by an actual example found still hafted to a wooden handle in excavations at the Salts Bluff Rockshelter No. 1, Benton County, Arkansas.... This specimen appears to be a short, or one-handed hoe, an identity that seems consistent with the size and strength of the shell." The specimens from 40DV68 do not show substantial use-wear, although some form of attrition can be noted on the posterior edge opposite the hinge. Although not firmly suggested by the evidence from Cockrill Bend, these artifacts could have

functioned as "weeding" tools at periodic episodes during the agricultural season, and were then discarded following use.

The three distinct filling episodes indicated in Feature 33 can be interpreted to suggest an initial excavation and use of the feature, followed by a period of abandonment during which surrounding material infiltrated the pit (Stratum 3). Subsequent reuse of the pit as a trash disposal area appears to have taken place during at least two phases (Strata 1 and 2), possibly as the result of two distinct "cleaning" episodes.

The generally low numbers of jars represented in the sample would tend to suggest a relatively short use of the structure as well. Ethnoarchaeological studies of the use life of earthenware vessels have suggested an average use life of 1.5 to 2.2 years for cooking vessels (Lightfoot 1993:171). Larger storage vessels, represented only by the finer-paste bottle in the 40DV68 assemblage, have a cross-cultural average use life of 5.4 years (Lightfoot 1993:171). The nature of the sample from 40Dv68 does not permit any substantial interpretations based on minimum number of vessels due to the effects of plowing and erosion. However, the general nature of the discarded assemblage would tend to support a shorter-term occupation of the site. We again would suggest that the sample would tend to indicate a period somewhat less than ten years. The general absence of larger storage vessels in the assemblage also supports an interpretation of the site as a seasonal use structure.



Figure 9. Structure 1 (Feature 52), 40DV68.

In summary, Structure 1 and the feature complex located to the south can be interpreted as the remains of a periodically occupied warm-weather field structure, probably used over the course of less than ten years by a single nuclear family. Although not compelling, the relatively ephemeral nature of the structure, the (apparent) absence of an interior hearth, and the absence of cane-impressed daub, all serve to support this interpretation. Faunal and floral remains recovered from the presumably associated feature complex to the south also tend to support these conclusions, although these data may reflect only the seasonality of Feature 33 rather than the overall use of the site area.

The overall artifact assemblage and radiocarbon date suggests a relatively early date for the use of the site area by Mississippian peoples. Although considerable variation could be noted, an interpretation of a ten-year occupation of the structure sometime between circa AD 1000 and 1100 would appear reasonable.

Artifact Descriptions

Lithic Artifacts

A total of 3322 lithic artifacts were recovered from the 1990 test excavations at 40DV68 (Table 4). Provenience of projectile points is surface unless otherwise noted.

Kirk Serrated (n=1; Figure 11A)

Provenience: Feature 14

Metric attributes (in mm):

<i>Length:</i>	46.86
<i>Stem Width:</i>	18.36
<i>Stem Length:</i>	8.28
<i>Shoulder Width:</i>	27.53
<i>Thickness:</i>	7.24

Cross-section: Flattened

Remarks: Medium sized point with an incurvate base and serrated blade edge. This type has been securely associated with the Early Archaic period (Justice 1987:82).

Kirk Corner Notched (n=1; Figure 11B)

Provenience: Feature 14

Metric attributes (in mm):

<i>Length:</i>	37.86
<i>Shoulder Width:</i>	31.46
<i>Thickness:</i>	7.20

Cross-section: Flattened

Remarks: Medium sized projectile point with missing stem portions and distal. This type is diagnostic of the Early Archaic period (Justice 1987:71).

Jacks Reef Corner Notched Variant (n=1; Figure 11C)

Provenience: Feature 5 (Burial 1)

Metric attributes (in mm):

<i>Length:</i>	23.87
<i>Stem Width:</i>	12.57
<i>Stem Length:</i>	8.09

Shoulder Width: 22.01
Thickness: 4.81

Cross-section: Flattened

Remarks: This point has been reworked and appears to be a variant of the Jacks Reef type from the Late Woodland period.

Cotaco Creek (n=1; Figure 11D)

Metric attributes (in mm):

Length: 34.04
Stem Width: 20.23
Stem Length: 7.64
Shoulder Width: 39.79
Thickness: 9.53

Cross-section: Bi-convex

Remarks: Medium-sized, straight stemmed projectile point with broad, rounded shoulders. Basal and stem edges are lightly ground.

Wade (n=2; Figure 11E)

Provenience: Strip Block 4

Metric attributes (in mm):

Length: 52.30 (mean)
Stem Width: 14.24 (mean)
Stem Length: 8.05 (n=1)
Shoulder Width: 37.96 (mean)
Thickness: 9.23 (mean)

Cross-section: Bi-convex (n=1); flattened (n=1)

Remarks: Medium sized points with barbed shoulders.

Copena (n=1; Figure 11F)

Metric attributes (in mm):

Length: 28.91
Base Width: 23.07
Thickness: 9.77

Cross-section: Bi-convex

Remarks: Small-to-medium sized trianguloid projectile point with recurvate blade edges. This is very similar to Type 56 in the Normandy Reservoir (Faulkner and McCollough 1973:97).

Copena Variant (n=1; Figure 11G)

Provenience: Feature 20

Metric attributes (in mm):

Length: 63.13
Base Width: 25.93
Thickness: 8.80

Cross-section: Bi-convex

Remarks: Medium sized, shallow side notched point with a recurvate blade. One face was shaped by collateral flaking. The point shares many similarities with Copena points, and is probably a Woodland period projectile.

Bakers Creek (n=2; Figure 10A)

Provenience: Feature 13 (n=1); Strip Block 4 (n=1)

Metric attributes (in mm):

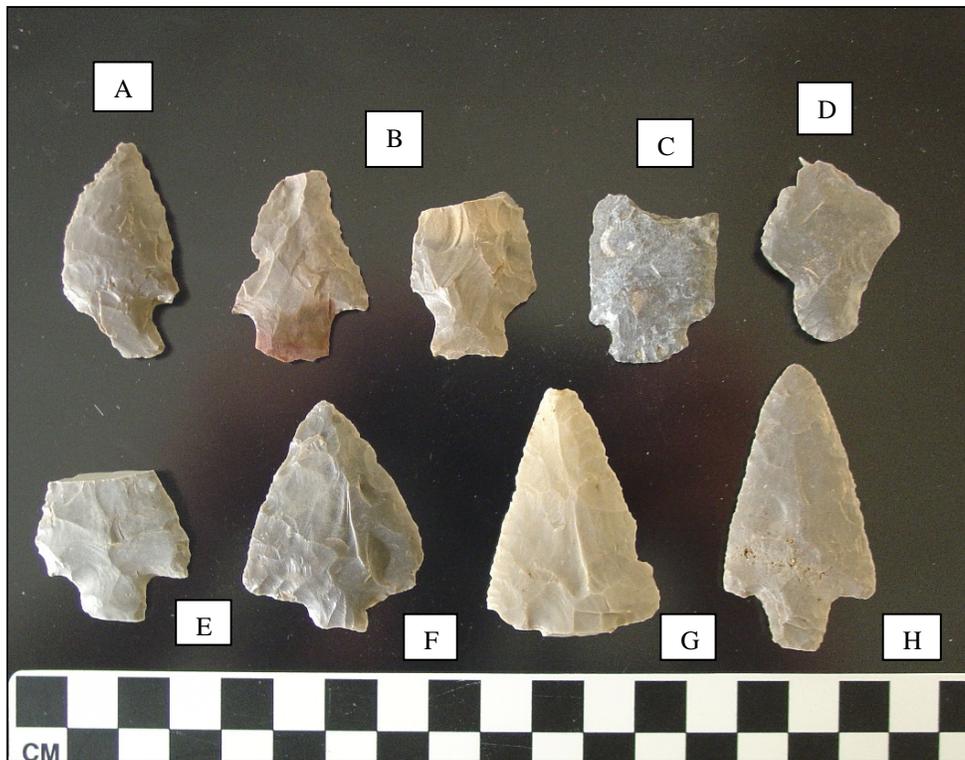


Figure 10. Projectile Points, site 40DV68. (A) Bakers Creek, (B) Category 1, (C) Lowe Cluster, (D) Adena Variant, (E) Little Bear Creek, (F) Category 4, (G) Category 5, (H) Gary

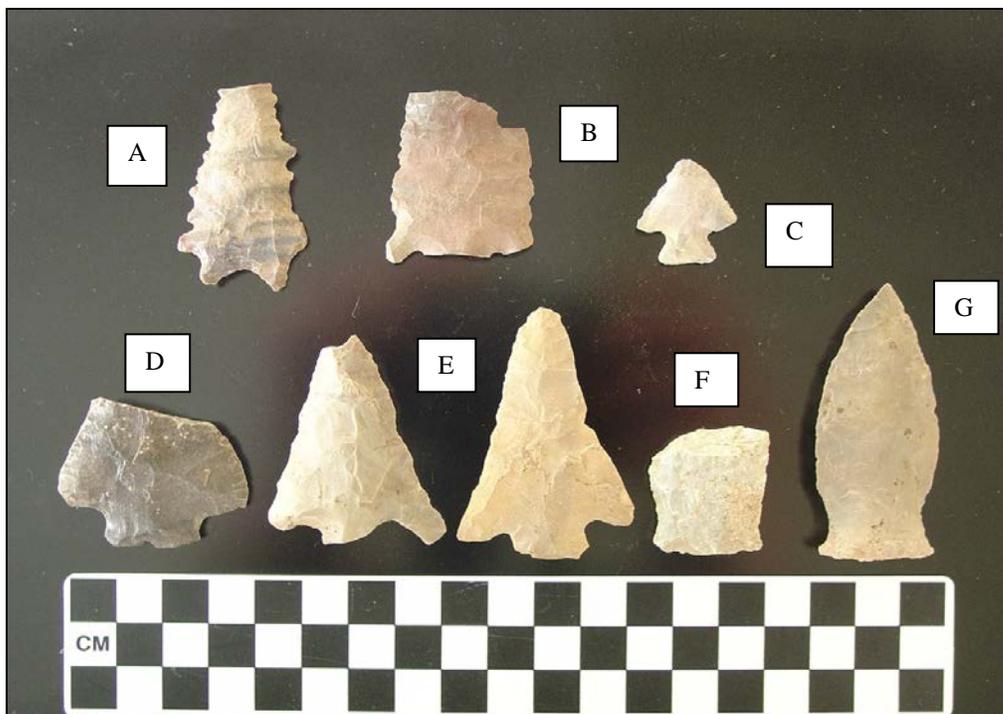


Figure 11. Projectile points, site 40DV68. (A) Kirk Serrated, (B) Kirk Corner-Notched, (C) Jacks Reef Corner-Notched Variant, (D) Cotaco Creek, (E) Wade, (F) Copena, (G) Copena Variant.

<i>Length:</i>	33.54 (mean)
<i>Stem Width:</i>	13.38 (mean)
<i>Stem Length:</i>	9.25 (mean)
<i>Shoulder Width:</i>	27.14 (n=1)
<i>Thickness:</i>	7.05 (mean)

Cross-section: Flattened

Remarks: Small to medium sized projectile point with expanding stem and horizontal shoulders. This type is typically associated with the Early to Middle Woodland period.

Category 1 (n=2; Figure 10B and 10E)

Provenience: Strip Block 4

Metric attributes (in mm):

<i>Length:</i>	37.38
<i>Stem Width:</i>	13.95
<i>Stem Length:</i>	10.60
<i>Shoulder Width:</i>	25.95
<i>Thickness:</i>	6.78

Cross-section: Flattened

Remarks: Small to medium sized stemmed point. This is similar to the Early Woodland Stemmed Cluster described by Justice (1987:184). A Woodland association is suggested for this point.

Category 2 (n=2; Figure 10C)

Metric attributes (in mm):

<i>Length:</i>	32.33
<i>Stem Width:</i>	15.30
<i>Stem Length:</i>	8.18
<i>Shoulder Width:</i>	24.18
<i>Thickness:</i>	7.08

Cross-section: Bi-convex

Remarks: Small-to-medium sized shallow side-notched projectile point. This type is similar to the Lowe Cluster described by Justice (1987:208). A Woodland origin is suggested for this point.

Category 3 (n=1; Figure 10D)

Provenience: Feature 33

Metric attributes (in mm):

<i>Length:</i>	35.37
<i>Stem Length:</i>	11.30
<i>Shoulder Width:</i>	n/a
<i>Thickness:</i>	6.50

Cross-section: Flattened

Remarks: Small to medium sized, rounded stemmed projectile point. This point is similar to the Adena style, suggesting a Woodland period association.

Category 4 (n=1; Figure 10F)

Provenience: Feature 14

Metric attributes (in mm):

<i>Length:</i>	44.86
<i>Stem Width:</i>	11.58

Shoulder Width: 33.29
Thickness: 6.72

Cross-section: Flattened

Remarks: Medium sized stemmed point with wide, rounded shoulders and recurvate blade edges. Severe burning has removed a large portion of the stem and one face. Form of shoulders and stem suggest a variant of Cotaco Creek, and an associated Late Archaic/Woodland date.

Category 5 (n=1; Figure 10G)

Metric attributes (in mm):

Length: 47.75
Stem Width: 14.70 (neck)
Shoulder Width: 33.06
Thickness: 8.15

Cross-section: Bi-convex to flattened

Remarks: Medium sized stemmed point with rounded shoulders and straight blade edges. Most of the stem is missing from this specimen. The horizontal shoulders and straight blade edges suggest a Late Archaic/Early Woodland association.

Category 6 (n=1; Figure 10H)

Provenience: Strip Block 5

Metric attributes (in mm):

Length: 54.94
Stem Width: 13.41
Stem Length: 10.71
Shoulder Width: 29.12
Thickness: 6.80

Cross-section: Flattened

Remarks: Small-to-medium sized projectile with a constricted stem. This is similar to the Gary contracting stemmed described by Justice (1987:189).

Steatite

One small fragment of a steatite bowl was recovered from Feature 14. A radiocarbon assay from the feature yielded a date of 6590 ± 90 BP (TX7002). The fragment was 63.50 mm in length, 48.16 mm in width, 13.09 mm in thickness, and weighed 46.8 grams.

Ceramic Artifacts

A total of 419 ceramic artifacts were recovered from excavations at 40DV68, including a predominance of Mississippian period ceramics along with a very minor representation of presumably Middle Woodland period ceramics (Table 5). Ceramics were initially subdivided on the basis of paste and temper, with further subdivisions based on surface treatments. While breakdowns by a variety of temper admixtures is presented for analytical purposes, it is our opinion that the majority of ceramics were simply tempered with crushed shell, and other "temper" inclusions simply represent natural inclusions in the clay. Following tabulation of individual sherds, attempts were made to cross-mend sherds, with some limited success.

Estimates of the minimum number of represented vessels (MNV) were then made based on the reconstructed portions of vessels and the curvature and number of remaining sherds. Although the resulting vessel estimates are admittedly somewhat subjective, they are also highly conservative. The observed variability in color, texture, and general appearance over the surface of individual vessels and the variability in non-shell inclusions preclude any definitive efforts to sort body sherds into independent vessels in the absence of other information. Therefore, the MNV counts presented herein represent the absolute minimum number of vessels based on the analyst's perceptions.

Table 4. Lithic Artifacts, Site 40DV68.

Proven	Feat	Cat No.	Prj Pts	Cor	Bfc	Ufc	Pri Flk	Sec Flk	Trt Flk	Ang Dbr	St	Sh	Se	He	TOTAL
Surface	-	2, 8	6	-	11	5	-	-	-	-	-	-	-	-	22
BHT-A	1	1	-	-	1	-	2	6	28	51	-	-	-	-	88
SB-1	4	5	-	-	-	-	-	-	4	5	-	-	-	-	9
SB-1	5	6	-	-	-	-	6	3	116	126	2	-	-	-	253
SB-2	6	9	-	-	-	-	-	1	11	13	-	-	-	-	25
SB-2	7	10	-	-	-	-	-	-	4	2	1	-	-	-	7
SB-2	9	12	-	1	2	-	7	14	81	102	1	-	-	-	208
SB-2	10	13	-	-	-	-	-	1	10	7	-	-	-	-	18
SB-2	11	14	-	-	-	-	-	-	1	1	-	-	-	-	2
SB-2	12	15	-	-	-	-	-	1	6	3	-	-	-	-	10
SB-3	13	16	1	-	2	3	3	22	76	279	2	-	-	1	389
SB-2	14	18	3	-	10	-	5	14	114	103	3	-	1	-	253
SB-1	15	19	-	-	1	1	3	3	51	47	1	-	-	-	107
SB-2	20	24	1	-	-	-	1	-	2	3	-	-	-	-	7
SB-2	21	25	-	-	2	-	3	4	37	33	-	-	-	-	79
SB-4	24	30	-	-	-	-	-	-	2	-	1	-	-	-	3
SB-4	25	31	-	-	-	-	-	-	1	-	1	-	-	-	2
SB-4	26	33	-	1	1	-	-	2	30	39	1	-	-	-	74
SB-4	28	35	-	-	-	-	-	-	1	-	-	-	-	-	1
SB-4	29	37	-	1	2	1	7	30	156	157	3	-	-	-	357
SB-4	30	38	-	-	-	-	1	-	-	-	-	-	-	-	1
SB-5	32	40	-	-	-	-	-	-	4	-	-	-	-	-	4
SB-5	33	41	1	-	2	-	-	2	2	3	1	-	-	-	11
SB-5	34	44	-	1	-	-	-	-	1	2	-	-	-	-	4
SB-5	35	43	-	-	-	-	-	-	1	-	-	-	-	-	1
SB-2	38	51	-	-	2	-	2	7	73	118	1	-	-	-	203
SB-1	39	54	-	-	-	-	-	-	43	66	-	1	-	-	110
SB-2	43	58	-	-	1	-	-	4	23	34	-	-	-	-	62
SB-4	49	64	-	-	-	-	1	4	23	21	-	-	-	-	49
SB-4	50	67	-	-	-	-	-	1	3	5	-	-	-	-	9
SB-4	51	70	-	-	-	-	2	4	7	7	-	-	-	-	20
SB-5	53	103	-	-	-	-	-	1	6	3	-	-	-	-	10
SB-5	55	105	-	-	1	-	-	1	21	17	-	-	-	-	40
SB-5	56	106	-	-	-	-	-	3	10	11	-	2	-	-	26
TOTAL			12	4	38	10	43	128	948	1258	18	3	1	1	2464*

Proven=Provenience; Feat=Feature; Cat No.=Catalogue Number; Prj Pts=Projectile Points; Cor=Core; Bfc=Biface; Ufc=Uniface; Pri Flk=Primary Flake; Sec Flk=Secondary Flake; Trt Flk=Tertiary Flake; Ang Dbr=Angular Debris; St=Sandstone; Sh=Shale; Se=Steatite; He=Hematite

Table 5. Ceramic Artifacts, Site 40DV68.

Surface Treatment	Temper	-----Features-----			TOTALS
		29	33	37	
PLAIN	Coarse Shell	60	40	8	108
	Fine Shell	5	3	-	8
	Fine Shell/Grit/Clay?	-	1	-	1
	Shell/Grit	17	41	9	67
	Shell/Sand	-	2	-	2
	Untempered	-	1	-	1
Subtotal		82	88	17	187
CORDMARKED	Quartz	1	-	-	1
	Fine Shell	-	-	1	1
	Shell/Grit	-	137	-	137
	Shell/Grit (smoothed)	7	17	2	26
Subtotal		8	154	3	165
FABRIC IMPRESSED	Shell	1	-	2	3
	Shell/Grit	-	48	2	50
Subtotal		1	48	4	53
BRUSHED	Shell/Grit	1	-	-	1
Subtotal		1	-	-	1
OTHER CERAMIC	Daub	5	-	-	5
	Residual	8	-	-	8
Subtotal		13	-	-	13
TOTALS		105	290	24	419

Paste and Temper Characteristics

Coarse shell tempered plain (n=108)

This category includes all sherds exhibiting no evidence for surface modifications, and tempered with relatively coarsely-crushed mussel shell. The sherds are comparable to the established "supertype" Mississippi Plain (Phillips 1970:130-135).

Fine shell tempered plain (n=8)

This category includes all sherds exhibiting no evidence for surface modifications, and tempered with relatively finely-crushed mussel shell. The sherds are comparable to the established "supertype" Bell Plain (Phillips 1970). The paste characteristics are most typical of globular bottle forms in the region. Most thin-walled sherds exhibiting small amounts of very finely crushed shell, along with fine grit and rounded clay particle inclusions can readily be

identified as originating from a bottle. No neck or rim sherds were present, but sherds exhibiting these characteristics typically derive from cylindrical-neck vessels.

Shell/grit tempered plain (n=67)

This category includes all sherds exhibiting no surface modifications, and tempered with coarsely crushed mussel shell. In addition to shell, the paste includes varying amounts of rounded grit particles. These inclusions probably represent natural inclusions, but are separated herein for analytical purposes.

Shell/sand tempered plain (n=2)

Two unmodified sherds contained coarsely crushed mussel shell and sand in the paste. Since much of the floodplain and lower terraces of Cockrill Bend are composed of sand deposits, the inclusions of this material in the paste probably result from the clay source, rather than an intentional use as a tempering agent.

Untempered plain (n=1)

A single small sherd contained no apparent tempering agents, and was separated into this category as a result. Again, however, this distinction is probably coincidental rather than representing intentional human action.

Quartz tempered cordmarked (n=1)

A single quartz-tempered sherd exhibiting cordmarking on the exterior surface was identified in the sample. The presence of Early-Late Woodland diagnostic projectile points suggests some occupation of the site during the Woodland period, and it appears likely that this single sherd results from occupations during this earlier period.

Fine shell tempered cordmarked (n=1)

This category includes a single sherd exhibiting exterior cordmarking and including finely crushed shell temper.

Shell/grit tempered cordmarked (n=137)

All sherds exhibiting cordmarking on the exterior surface (apparently generally the upper body and shoulder) and tempered with mixtures of coarsely crushed mussel shell and rounded grit particles were placed in this analytical category.

Shell/grit tempered cordmarked, smoothed (n=26)

This analytical category is generally referable to the shell/grit tempered cordmarked, but the exterior surface treatment appears to have included an additional smoothing technique. Examinations of the vessel shown in Figure 12 suggests that single vessels may exhibit a mixture of plain, cordmarking and smoothed-over cordmarking on a single vessel surface. Some of the apparent smoothing on these sherds may have resulted from erosion and leaching.

Shell tempered fabric impressed (n=3)

These sherds include samples that exhibit exterior fabric impressions with pastes including coarsely crushed mussel shell.

Shell/grit tempered fabric impressed (n=50)

This category includes all sherds exhibiting exterior fabric-impressed surface treatments and mixtures of coarsely-crushed mussel shell and rounded grit particles of variable sizes. The majority can be attributed to exterior fabric-impressed jars, with a sizable minority originating from fabric-impressed pans.

Shell/grit tempered brushed (n=1)

A single sherd tempered exhibiting coarsely crushed mussel shell and rounded grit particles as inclusions in the paste exhibited a brushed exterior surface.

Daub (n=5)

A minimal sample of daub was recovered during the investigations. Only those artifacts exhibiting a smoothed face in concert with an opposing unmodified "rough" face were placed in this category.

Earplug (n=1)

This single "spindle-shaped" artifact tempered with very small amounts of finely-crushed shell is suggested to be an earplug.

Residual categories (n=8)

The residual category included eight sherds that were too fragmentary or poorly preserved to identify temper type or surface treatment.

Vessel Forms

Estimates of the minimum number of vessels (MNV) are presented by feature, since no cross-mending of sherds was identified between the three features. Detailed discussions of the methodology used to determine MNV is presented in the discussion for each feature.

Feature 29 (n=106)

The majority of sherds from Feature 29 appear to have originated from globular or subglobular jars, including a minimum of three distinct vessels. Unfortunately, the sample was insufficient to reconstruct specific forms. Five sherds appear to have originated from a minimum of one crude bottle exhibiting finely-crushed shell temper.

Of greater analytical importance is the predominance of cordmarked and fabric impressed jar sherds in the sample. This pattern would appear to support interpretations of early Dowd regional period (ca. AD 1050-1250) assemblages which suggest cordmarked and fabric-impressed jars decline in use by about AD 1150. Manipulatory appendages in the sample include only a single thin flange. The only other feature of importance noted in the

sample was the presence of a single rim node on shell-grit tempered paste. The single quartz-tempered cordmarked sherd from feature fill is interpreted as an intrusive sherd resulting from much earlier occupations on the site.

Feature 33 (n=290)

Feature 33 yielded a minimum of five vessels, although a larger number of vessels are indirectly suggested by the absence of cross-mending among the body sherds. A minimum of three shell-grit tempered fabric impressed pans with thickened rims were identified, one exhibiting a notched rim. Although not firmly established, patterns have been noted elsewhere suggesting that fabric-impressed pans with thickened (as opposed to thinned) rims were predominantly used during the Early Mississippian period.

A minimum of two jars was identified in the sample, including examples of exterior fabric-impressed and exterior cordmarked vessels (see Figure 12). The manipulatory appendages associated with these two vessels include two loop handles (one riveted). These forms are interpreted as generally representative of Early Mississippian throughout the Central Basin.

The entire sample from Feature 33 was tempered with medium to coarsely crushed shell. In addition, all of the sherds exhibiting highly variable amounts of grit inclusions. The grit inclusions likely result from natural inclusions in the clay source, but deliberate inclusions of grit as a tempering agent cannot be completely ruled out.

Feature 37 (n=24)

The sherd sample from Feature 37 was too small to provide substantial information, however a minimum of three vessels were identified (the actual count is probably higher). A single sherd tempered with a mixture of finely crushed shell, grit and rounded clay particles almost certainly originates from a bottle, although the size of the sherd prohibits identification of a specific form.

A minimum of one jar form was identified, although it appears likely that several jars are actually represented by the sample. Manipulatory appendages include a flattened loop handle and a single thin lug. Although the combination of paired loop handles and paired single lugs is unusual for the region, the possibility of their co-occurrence on a single vessel cannot be ruled out. In addition, three body sherds exhibit cordmarking on the shoulder or body and two exhibit (probable) fabric impressions. Unfortunately, the small size of the sherds prevented any further sorting or interpretation. In general, however, their presence is supportive of the general use of shoulder cordmarked and fabric-impressed vessels in the overall assemblage from the site.

At least one fabric-impressed pan is represented in the sample in the form of two rim sherds. Again, the small size of the sherds prevents any substantive interpretations, other than the general suggestion that fabric-impressed pans were a substantial and necessary component in the vessel assemblage even at the farmstead level.



Figure 12. Reconstructed cordmarked jar with loop handle from Feature 33, site 40DV68.

Faunal Remains

Archaeological excavations at 40DV68 yielded a sample of 3961 fragments of bone and shell from sixteen feature contexts (Tables 6 and 7). The vast majority (>97%) of remains derived from Feature 33, a Mississippian period pit located to the southeast of Structure 1.

Of primary interest is the overall diversity of the faunal assemblage represented in a single Mississippian trash pit. This deposit presumably originates from a single-family Mississippian farmstead over a relatively short period of time (at most, two or three years). The assemblage from Feature 33 essentially underlines the fact that Mississippian families were exploiting almost every animal resource available. The diversity of exploited species also adds some insights into the diversity of microenvironments represented on Cockrill Bend during the Mississippian period. In concert with limited faunal samples from Sandbar Village (40DV36), a hamlet or small village located approximately one mile to the north (Smith and Moore 2012), the Feature 33 assemblage indicates that Mississippian populations on Cockrill Bend were extracting fauna from the Tennessee River proper, floodplain bottomlands, swampy backwater sloughs located primarily on the northern portion of the bend, terrace forest areas, and the upland forests located in the central and southern portions of the bend.

In terms of tool production, the 40DV68 assemblage is supportive of general models of Mississippian bone tool use. Several bone tools and manufacturing residue fragments were recovered from Feature 33 (Figure 14), including fish hooks, fish hook manufacturing residue,

and a bone awl. With the exception of awls and fishhooks, the use of bone and shell as materials for tool production appears to have been relatively limited during the late prehistoric period in the study area. The apparent decline in bone tool use has been hypothetically related to an increasing reliance on cane as a substitute (Smith 1992), although little direct artifactual evidence can be mustered in support of this hypothesis.

Six shell artifacts were recovered during the excavations (see Figure 13). These include two freshwater mussel species, the three-ridge (*Amblema plicata*; $n=4$) and mucket (*Actinonaias carinata*; $n=2$) a circular hole in the center. Several of these artifacts exhibit a series of small, semi-circular indentations around the hole which appear to be the result of successive drilling to remove the circular shell fragment.

Lewis and Kneberg (1946:131) identified 161 mussel shells with roughly similar perforations at Hiwassee Island, which they interpreted as agricultural implements or hoes. Similar artifacts fashioned from *Megalonaias gigantea* and *Fusconaia ebenus* at the Apple Creek site in Illinois (Parmalee, Paloumpis, and Wilson 1972:5) were also determined to be hoes.

The artifacts in Figure 13 remain tentatively interpreted as hoes or possibly weeding implements. However, a potentially complicating factor is the lack of any obvious edge wear attrition.



Figure 13. Shell artifacts, site 40DV68.

Table 6. Identifiable Faunal Remains, Site 40DV68.

Species	Count	MNI	Burn	Cut	Mod	Features						
						5	6	8	14	26	29	30
MAMMALS												
<i>Odocoileus virginianus</i> , White-tailed deer	43	2	8	2	2	1	-	-	5	-	2	-
<i>Mephitis mephitis</i> , Striped skunk	6	1	-	-	-	-	-	-	-	-	-	-
<i>Procyon lotor</i> , Raccoon	6	2	2	-	-	-	-	-	-	-	-	-
<i>Ursus americanus</i> , Bear	1	1	-	-	-	-	-	-	-	-	-	-
<i>Glaucomys volans</i> , Flying squirrel	1	1	1	-	-	-	-	-	-	-	-	-
<i>Sciurus carolinensis</i> , Squirrel	16	2	-	-	-	-	-	-	-	-	-	-
<i>Sciurus</i> spp., Squirrel species	8	-	-	-	-	-	-	-	-	-	-	-
<i>Sylvilagus floridanus</i> , Cottontail rabbit	25	2	7	-	-	-	-	-	-	-	-	-
<i>Scalopus aquaticus</i> , Common mole	1	1	1	-	-	-	-	-	-	-	-	-
<i>Blarina brevicauda</i> , Shrew	1	1	1	-	-	-	-	-	-	-	-	-
<i>Didelphis marsupialis</i> , Opossum	3	1	-	-	-	-	-	-	1	-	-	-
BIRDS												
Passerine spp., Perching birds	75	10	18	-	-	-	-	-	-	-	-	-
<i>Philohela minor</i> , Woodcock	1	1	-	-	-	-	-	-	-	-	-	-
<i>Meleagris gallopavo</i> , Wild turkey	22	3	3	-	1	-	-	-	2	-	-	-
<i>Colinus virginianus</i> , Bobwhite quail	4	2	1	-	-	-	-	-	-	-	-	-
<i>Buteo jamaicensis</i> , Hawk	1	1	-	-	-	-	-	-	-	-	-	-
Teal spp.	1	1	-	-	-	-	-	-	-	-	-	-
<i>Anas platyrhynchos</i> , Mallard	5	1	-	-	-	-	-	-	-	-	-	-
Mallard/Black duck spp.	4	2	-	-	-	-	-	-	-	-	-	-
Duck spp.	20	2	1	-	-	-	-	-	-	-	-	-
<i>Branta canadensis</i> , Canada goose	1	1	-	-	-	-	-	-	-	-	-	-
<i>Ardea herodias</i> , Great blue heron	1	1	-	-	-	-	-	-	-	-	-	-
REPTILES												
<i>Trionyx spiniferus</i> , Softshell turtle	2	1	-	-	-	-	-	-	-	-	-	-
<i>Chrysemys/Graptemys</i> spp.	2	1	-	-	-	-	-	-	-	-	-	-
<i>Terrapene carolina</i> , Box turtle	23	3	-	-	-	-	-	-	-	-	1	-
<i>Sternotherus odoratus</i> , Stinkpot	4	1	-	-	-	-	-	-	-	-	-	-
Colubridae, Non-poisonous snake family	23	1	3	-	-	-	-	-	-	-	-	-
Viperidae, Poisonous snake family	34	1	5	-	-	-	-	-	-	-	-	-
Serpent spp.,	51	-	3	-	-	-	-	-	-	-	-	-
AMPHIBIANS												
<i>Rana</i> spp., Frog spp.	3	2	1	-	-	-	-	-	-	-	-	-
<i>Rana/Bufo</i> spp., Frog/Toad spp.	46	3	4	-	-	-	-	-	-	-	-	-
Salamander spp.	5	1	-	-	-	-	-	-	-	-	-	-
FISHES												
<i>Aplodinotus grunniens</i> , Drumfish	14	3	1	-	-	-	-	-	-	-	-	-
Centrarchidae, Bass family	12	5	-	-	-	-	-	-	-	-	-	-
<i>Ictalurus punctatus</i> , Channel catfish	8	2	3	-	-	-	-	-	-	-	-	-
<i>Ictalurus</i> spp., Catfish	1	-	-	-	-	-	-	-	-	-	-	-
<i>Moxostoma</i> spp., Redhorse	21	3	1	-	-	-	-	-	-	-	-	-
Cyprinidae, Minnow	1	1	-	-	-	-	-	-	-	-	-	-
<i>Lepisosteus</i> spp., Garfish spp.	2	1	1	-	-	-	-	-	-	-	-	-
Large mammal fragments	132	-	55	-	6	-	-	-	-	1	3	-
Mammal fragments	815	-	769	-	-	-	-	-	-	-	-	-
Small mammal fragments	46	-	5	-	-	-	-	-	-	-	-	-
Small rodent fragments	1	-	-	-	-	-	-	-	-	-	-	-
Mammal/bird fragments	5	-	-	-	5	-	-	-	-	-	-	-
Bird fragments	244	-	28	-	2	-	-	-	-	-	2	-
Reptile fragments	43	-	5	-	-	-	-	-	-	-	1	-
Amphibian fragments	2	-	1	-	-	-	-	-	-	-	-	-
Fish fragments	1228	-	15	-	-	-	-	1	-	-	-	-
Miscellaneous bone	126	-	4	-	5	-	1	-	-	-	-	-
TOTAL	3194	68	947	2	21	1	1	1	8	1	9	1

Table 6. Identifiable Faunal Remains, Site 40DV68 (continued).

Species	Features									
	31	33	37	38	39	47	48	49	50	
MAMMALS										
<i>Odocoileus virginianus</i> , White-tailed deer	-	28	2	-	-	-	-	5	-	
<i>Mephitis mephitis</i> , Striped skunk	-	6	-	-	-	-	-	-	-	
<i>Procyon lotor</i> , Raccoon	-	6	-	-	-	-	-	-	-	
<i>Ursus americanus</i> , Bear	-	-	1	-	-	-	-	-	-	
<i>Glaucomys volans</i> , Flying squirrel	-	1	-	-	-	-	-	-	-	
<i>Sciurus carolinensis</i> , Squirrel	-	13	-	-	1	-	1	1	-	
<i>Sciurus</i> spp., Squirrel species	-	8	-	-	-	-	-	-	-	
<i>Sylvilagus floridanus</i> , Cottontail rabbit	-	23	2	-	-	-	-	-	-	
<i>Scalopus aquaticus</i> , Common mole	-	1	-	-	-	-	-	-	-	
<i>Blarina brevicauda</i> , Shrew	-	1	-	-	-	-	-	-	-	
<i>Didelphis marsupialis</i> , Opossum	-	2	-	-	-	-	-	-	-	
BIRDS										
Passerine spp., Perching birds-	-	74	-	-	-	-	-	1	-	
<i>Philohela minor</i> , Woodcock	-	1	-	-	-	-	-	-	-	
<i>Meleagris gallopavo</i> , Wild turkey	-	16	-	-	3	-	1	-	1	
<i>Colinus virginianus</i> , Bobwhite quail	-	4	-	-	-	-	-	-	-	
<i>Buteo jamaicensis</i> , Hawk	-	1	-	-	-	-	-	-	-	
Teal spp.	-	1	-	-	-	-	-	-	-	
<i>Anas platyrhynchos</i> , Mallard	-	5	-	-	-	-	-	-	-	
Mallard/Black duck spp.	-	2	-	-	-	-	-	-	-	
Duck spp.	-	20	-	-	-	-	-	-	-	
<i>Branta canadensis</i> , Canada goose	-	-	-	-	1	-	-	-	-	
<i>Ardea herodias</i> , Great blue heron	-	-	-	-	1	-	-	-	-	
REPTILES										
<i>Trionyx spiniferus</i> , Softshell turtle	-	-	-	-	1	-	-	-	1	
<i>Chrysemys/Graptemys</i> spp.	-	2	-	-	-	-	-	-	-	
<i>Terrapene carolina</i> , Box turtle	-	11	2	-	8	-	1	-	-	
<i>Sternotherus odoratus</i> , Stinkpot	-	4	-	-	-	-	-	-	-	
Colubridae, Non-poisonous snake family	-	17	-	-	4	-	2	-	-	
Viperidae, Poisonous snake family	-	26	3	-	1	-	4	-	-	
Serpent spp.,	-	50	1	-	-	-	-	-	-	
AMPHIBIANS										
<i>Rana</i> spp., Frog spp.	-	3	-	-	-	-	-	-	-	
<i>Rana/Bufo</i> spp., Frog/Toad spp.	-	46	-	-	-	-	-	-	-	
Salamander spp.	-	5	-	-	-	-	-	-	-	
FISHES										
<i>Aplodinotus grunniens</i> , Drumfish	-	14	-	-	-	-	-	-	-	
Centrarchidae, Bass family	-	12	-	-	-	-	-	-	-	
<i>Ictalurus punctatus</i> , Channel catfish	-	8	-	-	-	-	-	-	-	
<i>Ictalurus</i> spp., Catfish	-	1	-	-	-	-	-	-	-	
<i>Moxostoma</i> spp., Redhorse	-	20	-	-	-	-	-	1	-	
Cyprinidae, Minnow	-	1	-	-	-	-	-	-	-	
<i>Lepisosteus</i> spp., Garfish spp.	-	2	-	-	-	-	-	-	-	
Large mammal fragments	-	113	6	-	5	1	3	-	-	
Mammal fragments	-	814	1	-	-	-	-	-	-	
Small mammal fragments	-	45	-	-	-	-	1	-	-	
Small rodent fragments	-	-	-	-	-	-	-	1	-	
Mammal/bird fragments	-	5	-	-	-	-	-	-	-	
Bird fragments	-	227	3	-	11	-	-	1	-	
Reptile fragments	-	40	-	-	-	-	2	-	-	
Amphibian fragments	-	2	-	-	-	-	-	-	-	
Fish fragments	-	1226	-	-	-	-	1	-	-	
Miscellaneous bone	1	121	-	1	1	-	-	-	-	
TOTAL	1	3084	21	1	37	1	16	10	1	



Figure 14. Worked bone, site 40DV68

Table 7. Identifiable Mollusc Remains, Site 40DV68.

Species	Count	MNI	Modified	Feat 29	Feat 33
<i>Actinonaias carinata</i>	85	47	5	3	82
<i>Amblema plicata</i>	88	45	1	-	88
<i>Cumberlandia monodonta</i>	60	30	-	-	60
<i>Cyclonaias tuberculata</i>	54	30	-	-	54
<i>Dromus dromas</i>	32	18	-	-	32
<i>Ellipito dilatatus</i>	82	43	-	-	82
<i>Ellipito crassidens</i>	10	5	-	-	10
<i>Epioblasma arcaeiformis</i>	7	4	-	-	7
<i>Epioblasma brevidens</i>	3	2	-	-	3
<i>Epioblasma haysiana</i>	2	1	-	-	2
<i>Epioblasma cf. proprinqua</i>	8	4	-	-	8
<i>Fusconaias subrotunda</i>	1	1	-	-	1
<i>Lampsilis ovata</i>	3	2	-	-	3
<i>Lasmigona costata</i>	1	1	-	-	1
<i>Ligumia recta</i>	1	1	-	-	1
<i>Obovaria reflexa</i>	2	2	-	-	2
<i>Obovaria subrotunda</i>	5	4	-	-	5
<i>Plagiola lineolata</i>	1	1	-	-	1
<i>Plethobasus cyphus</i>	2	1	-	-	2
<i>Plethobasis cicatricosus</i>	6	4	-	-	6
<i>Pleurobema clava</i>	20	11	-	-	20
<i>Pleurobema cordatum</i>	165	93	-	-	165
<i>Pleurobema cordatum</i> cplx	92	47	-	-	92
<i>Ptychobranthus faciolare</i>	18	12	-	-	18
<i>Quadrula cylindrica</i>	2	1	-	-	2
<i>Quadrula pustulosa</i>	12	8	-	-	12
<i>Villosa cf. tanieta</i>	5	3	-	-	5
Indeterminate fragments	54	-	-	-	54
TOTAL	767	421	6	3	764

Botanical Remains

Archaeological excavations at 40DV68 yielded a reasonable sample of botanical remains from sixteen feature contexts (Table 8). The vast majority derived from Features 14 and 33.

Table 8. Identified Botanical Remains, Site 40DV68.

Species	FEATURES													TOTAL
	1	5	9	14/1	14/2	14/1+2	15	21	33	38	39	43	55	
WOOD/CANE CHARCOAL														
<i>Arundinaria</i> sp., Cane	-	1	-	1	-	1	-	-	1	-	-	2	-	5
<i>Acer</i> sp., Maple	-	-	-	3	-	3	-	-	-	-	1	-	-	4
<i>Carya</i> sp., Hickory	-	1	1	7	-	7	-	-	6	2	-	-	-	17
<i>Diospyros virginiana</i> , Persimmon	-	-	-	2	-	2	-	-	-	-	-	-	-	2
<i>Fraxinus</i> sp., Ash	-	-	-	2	-	2	-	-	4	-	-	1	-	7
<i>Gleditsia triacanthos</i> , Honey Locust	-	-	-	-	-	-	-	-	2	-	-	-	-	2
<i>Juglans</i> sp., Walnut/Butternut	-	-	-	-	-	-	-	-	2	-	-	-	-	2
<i>Maclura pomifera</i> , Osage Orange	-	-	-	-	-	-	-	-	3	-	-	-	-	3
<i>Quercus</i> sp., Oak	-	3	-	8	-	8	-	-	8	5	1	-	-	25
<i>Ulmus</i> sp., Elm	-	-	-	-	-	-	-	-	-	1	-	-	-	1
NUTSHELL														
<i>Carya</i> sp., Hickory (wt/g)	18	13	4	219	8	227	-	-	4	21	16	15	-	318
	2.5	1.3	0.2	35.6	1.0	36.6			0.7	1.6	1.4	0.8		45.1
<i>Juglans nigra</i> , Black Walnut (wt/g)	-	1	-	169	2	171	23	-	16	-	-	1	-	212
		0.1		19.5	0.1	19.6	3.5		0.4			<0.1		23.6
<i>Corylus</i> sp., Hazelnut (wt/g)	-	-	-	4	2	6	-	-	-	-	-	-	-	6
				0.2	0.4	0.6								0.6
SEED/FRUIT														
<i>Diospyros virginiana</i> , Persimmon (wt/g)	-	-	-	3	1	4	-	-	1	-	-	-	1	6
				0.2	0.1	0.3			0.1				0.1	0.5
MAIZE														
Kernels (wt/g)	-	-	-	-	-	-	-	-	4	-	-	-	-	4
									0.2					0.2
TUBER														
(wt/g)	-	-	-	1	-	1	-	3	-	-	-	15	-	19
				>0.1		>0.1		1.7				1.0		2.7
TOTAL	18	19	5	419	13	432	23	3	51	29	18	34	1	633

Radiocarbon Dates

Three carbonized wood samples from features containing temporally sensitive artifactual materials were submitted for radiocarbon assays at the University of Texas at Austin. Determinations were corrected at using the atmospheric record calibration curves in the program CALIB (University of Washington 1993). The resulting dates are presented in Table 9.

Table 9. Radiocarbon Dates from the Sogom Site, 40DV68.

Sample	Provenience	Uncorrected Date	Corrected Date Range (2 sigma)
Tx-7002	Feature 14	6590 +/- 90 BP	5666 -5367 BC
Tx-7003	Feature 5	1250 +/- 90 BP	AD 651-973
Tx-6998	Feature 33	930 +/- 60 BP	AD 1003-1222

An Archaic period pit (Feature 14) yielded an uncorrected date of 6590 +/- 90 BP, or 4640 BC (Tx-7002). At 2 sigma, this assay corrects to a probable date range between 5666 to 5367 BC.

Feature 5, a semi-flexed human interment, yielded an uncorrected date of 1250 +/- 90 BP, or AD 700 (Tx-7003). This radiocarbon result has a corrected date range (at 2 sigma) between AD 651 to 973.

A large pit feature with Mississippian period artifacts (Feature 33) produced an uncorrected date of 930 +/- 60 BP, or 1020 AD (Tx-6998). This radiocarbon assay has a corrected date range (at 2 sigma) of AD 1003 to 1222.

PROJECT CONCLUDING REMARKS

The Division excavations at these short-term seasonal occupations within the Cockrill Bend uplands revealed that plowing and subsequent erosion seriously compromised the contextual integrity of the cultural deposits. Damage created by agricultural practices is difficult to assess on these types of sites, but we could easily postulate that much of the data content is largely destroyed through such practices. Comparisons of the initial 1977 survey data with the more intensive 1990 examinations suggests the initial survey and recording methodologies used as "industry standards" in Tennessee may be ineffectual in assessing the integrity and cultural affiliation of small sites. The 1977 results suggested that each of the four sites in question was unlikely to contain significant archaeological data. These initial assessments proved valid for two sites (40DV65 and 40DV67). Fortunately the 1990 effort recorded substantial archaeological information through the identification of a Mississippian structure and associated facilities at site 40DV68. In addition, a minimal quantity of significant archaeological data was discovered at 40DV64.

These data suggest that fairly intensive shovel-testing should be a minimal requirement for assessment of most archaeological sites, as the authors suspect that an intensive shovel-testing program during the initial survey would have yielded considerably better results. From a methodological perspective, the ramifications of these conclusions are clear that specific site types will be grossly underrepresented in site survey records. Although seasonal use of site areas by Archaic and Woodland peoples may be more readily apparent due to the prevalent pattern of continual manufacture and discard of diagnostic lithic artifacts, seasonal occupations by Late Woodland and Early Mississippian peoples may leave much less compelling evidence. The tendency of later peoples to reoccupy the same limited locale (i.e. structure vicinities) creates a much smaller "window" for observation of these components during limited surface surveys. Also, the tendency for very limited midden deposits, with most of the trash deposits isolated in discrete filling episodes within pit features, additionally limits our ability to identify these types of sites.

The interpretative ramifications of this information are also clear. Isolated Mississippian farmsteads or "day stations" such as the Sogom site (40DV68) are critical components of the settlement system -- reflecting the basic economic household unit supporting all upper levels of the sociopolitical hierarchy. In addition, these sites produce discrete short-term time capsules of artifacts that are critical for the definition of phases, regional periods, etc. Large, long-term Mississippian habitation sites (such as towns and villages) often yield substantially larger artifact assemblages, sets of radiocarbon dates, and other information. However, these village and town sites also yield a correspondingly complex picture of Mississippian lifestyles covering several generations. Refining chronologies and the correlated understanding of change over time requires the investigation of both small and large Mississippian settlements.

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