A REPORT ON THE 1992 ARCHAEOLOGICAL INVESTIGATIONS AT THE BRANDYWINE POINTE SITE (40DV247), DAVIDSON COUNTY, TENNESSEE

Michael C. Moore and Kevin E. Smith

TN Department of Environment & Conservation

Division of Archaeology
Report of Investigations No. 9 (1993)
Revised Electronic Edition, 2018
Edited by Aaron Deter-Wolf

A REPORT ON THE 1992 ARCHAEOLOGICAL INVESTIGATIONS AT THE BRANDYWINE POINTE SITE (40DV247), DAVIDSON COUNTY, TENNESSEE

Michael C. Moore and Kevin E. Smith

Tennessee Department of Environment and Conservation
Division of Archaeology
Report of Investigations No. 9 (1993)

Revised Electronic Edition, 2018
Edited by Aaron Deter-Wolf

Tennessee Division of Archaeology • 1216 Foster Ave. • Cole Bldg #3 • Nashville, TN 37243
Tel: 615-741-1588 • http://www.tn.gov/environment/program-areas/arch-archaeology.html

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACKNOWLEDGMENTS

This report represents the end product of a successful cooperative effort between the state and private sector. The authors would first like to thank the developers of Brandywine Pointe, Mr. Keeling Turner and Mr. Bill Kottas, for allowing the Tennessee Division of Archaeology (TDOA) to continue archaeological investigations beyond what had been initially planned. None of the information regarding the Mississippian structure would have been obtained without their gracious consent and interest.

DuVall & Associates, Inc. kindly shared the results of their work with the TDOA, and were more than helpful with the loan of their backhoe. The DuVall & Associates, Inc. field crew, directed by Rick Taylor, consisted of Amanda Bradley, Derrick Dee, Maureen Hebert, and Steve Spears. Initial laboratory preparation (waterscreening, washing, sorting) of all artifacts and feature fill outside the Mississippian structure was performed by DuVall & Associates, Inc.

Excavation of the Mississippian structure was directed by Mike Moore and Kevin Smith of the TDOA. Suzanne Hoyal, Katherine Sanford, Parris Stripling and Scott Jones of the Division comprised an able field crew. Middle Cumberland Archaeological Society members George Heinrich and John Dowd also assisted with the structure excavation and their efforts were greatly appreciated. All faunal remains recovered from the excavations were analyzed by Emanuel Breitburg. Botanical remains were evaluated by Andrea Shea. The remainder of the artifactual assemblage was examined by Mike Moore (lithics) and Kevin Smith (ceramics). All maps and figures were drafted by Parris Stripling.

Sam Smith and Fred Prouty of the TDOA conducted limited investigations of a historic building site that was recorded during the investigations.

PREFACE TO THE SECOND EDITION

The revised digital edition of the Brandywine Pointe site report was produced in 2018 as part of an ongoing initiative by the Tennessee Division of Archaeology under State Archaeologist Michael C. Moore to facilitate online access to the "gray literature" of Division publications and create a permanent digital archive of site data. In preparing the revised edition of this report, original graphics were digitized and/or redrawn in digital formats, while original site and artifact photos were digitized from archival 35 mm negatives. The text itself was lightly edited for clarity.

When the original version of the Brandywine Pointe report was published, it incorporated the best contemporary understanding of the Mississippian sequence in the Middle Cumberland. Twenty-five years later, our knowledge of the Mississippian culture and chronology in the region have shifted considerably. Specifically, the modern chronological sequence (Moore and Smith 2009) discontinues use of the previously-identified Dowd and Thruston phases in favor of unnamed regional periods designated using Roman numerals I through V. The Dowd phase falls across Regional Periods II (AD 1100–1200) and III (AD 1200–1325), while the Thruston phase is encompassed within Regional Periods III and IV (AD 1325–1425). Readers are encouraged to consult Moore and Smith's 2009 report for contextual and interpretive information on late prehistoric settlement in Middle Tennessee That work is available for free via the TDOA web page: http://www.tn.gov/environment/program-areas/arch-archaeology.html

Following publication of the original Brandywine Pointe site report, Smith and Moore published a separate discussion of the site in the *Midcontinental Journal of Archaeology* (1994; Vol. 19, No. 2: 198-222). Interested readers are also referred to that publication.

INTRODUCTION

Site 40DV247 was initially recorded in 1988 as the Shute-Turner Farm, a rectangular tract of land encompassing 176 acres south of the Cumberland River in northeastern Davidson County, Tennessee (Figure 1). This farm was part of the Hunter's Hill plantation, which was owned and operated by Andrew Jackson prior to his move to the Hermitage property in 1804. Limited archaeological investigations of the Shute-Turner Farm area had been initiated during the summer of 1987 to locate historic features associated with the Jackson occupation (Gardner 1987). Although evidence for Jackson's use of the area was equivocal, a substantial prehistoric component was identified along a gently sloping ridge projection (designated "Area C") adjacent to the Cumberland River bottoms.

In the spring of 1992, most of the Shute-Turner Farm was scheduled for private development as an upscale subdivision named Brandywine Pointe. Included within the direct impact zone was the (prehistoric) artifact-rich Area C, as defined in the 1987 investigations. DuVall & Associates, Inc., a local archaeological consulting firm, was hired by the developers to identify any prehistoric or historic burials that might occur within Area C. Although no direct evidence of graves was found by the consultants, a single late prehistoric structure and several refuse-filled pits were identified during the investigations. While the consultant's responsibilities were restricted to the identification of cemetery areas, the Tennessee Division of Archaeology (TDOA) was able to reach an agreement with developers to excavate the structure before the area was disturbed by construction activities.

Structure excavations were conducted over a period of 17 days during May and June of 1992. The investigations were brought to a sudden end when the structure area was completely destroyed by looters in search of relics. Fortunately the excavation was nearly complete by that time, and relatively little information was lost. Such vandalism, although regrettable, was not necessarily unexpected as construction activities (i.e. roads and utilities) had made the site readily accessible to the public.

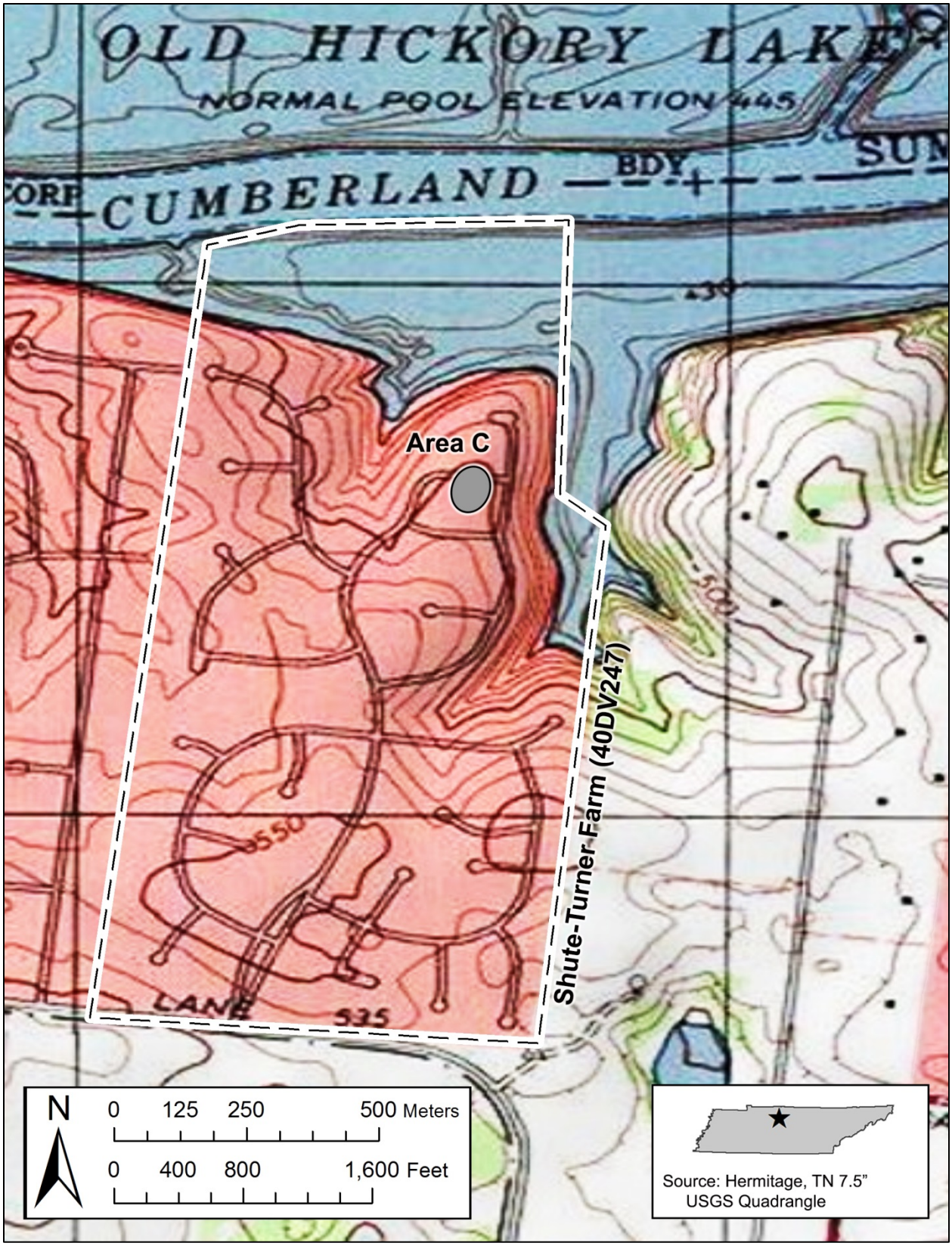

Figure 1. Location map of Brandywine Pointe Area C, Davidson County, Tennessee.

ENVIRONMENTAL SETTING

The Brandywine Pointe site occurs within the Central Basin physiographic region of Tennessee, which is best described as a somewhat elliptical area completely enclosed by the Highland Rim (Miller 1974:5). The terrain within the Central Basin is gently rolling to hilly with some nearly level areas. Numerous large to moderate-size streams meander through this region, including the Cumberland, Harpeth, Stones, Duck, and Elk Rivers. The Central Basin is often subdivided into an outer and inner basin, with the outer basin (including 40DV247) characterized by more hilly terrain than the inner basin. Elevations in the outer basin average about 750 feet AMSL, although some hills reach up to 1,300 feet AMSL. In comparison, elevations within the inner basin average around 600 feet AMSL.

Bedrock in the Central Basin is primarily Ordovician limestone, shale, and dolomite (Miller 1974:9). The Mississippian Fort Payne formation overlying Chattanooga Shale marks the contact between the Central Basin and Highland Rim (Wilson 1949:2). The inner basin is covered with limestone of the Stones River Formation, and displays patches of bare platy rock and thin topsoil with glade areas supporting red cedar trees. This region also exhibits moderate karst development with numerous sinkholes and several large caves present.

Soils

Central Basin soils were formed from underlying Ordovician limestone deposits and generally have high silt content. These soils are rich in calcium derived from the parent material. Soils in the outer basin also contain a large amount of phosphorus which has been commercially mined for years. Thick deposits of alluvium and colluvium occur in the valley floors. In addition, a small percentage of soils within the Central Basin are covered by loess.

Soils at the Brandywine Pointe site have been classified as Maury series, 2 to 7% slope (U.S. Department of Agriculture 1981:54). This series contains "...deep, gently sloping to moderately steep, well- drained soils that formed in residuum of phosphatic limestone or in old alluvium and residuum of phosphatic limestone." (U.S. Department of Agriculture 1981:54). Maury series soils are comprised of silt loams and silty clay loams that are medium to strongly acidic and good for agriculture.

Climate

Middle Tennessee enjoys a temperate climate with distinct seasonal changes (USDA 1981:2). The winters are generally mild as temperatures average 40 degrees F., although cold snaps as low as -15 degrees F. have been reported. Summers can be hot with average maximum temperatures about 90 degrees F. Temperatures in the high 90s to low 100s are not uncommon during the middle summer months, and can be especially uncomfortable when combined with fairly high (afternoon) humidity averages around 60%.

The total annual precipitation within the study area averages nearly 48 inches, with most of this coming in the form of rain. Nearly half of the precipitation falls between April and

September, which coincides with the growing season for most crops. Thunderstorms during the summer months are common. Precipitation in the form of snow is, for the most part, minimal.

Flora and Fauna

The study area occurs within the Western Mesophytic Forest Region (Braun 1950). Upland climax communities in this region originally supported oak, hickory, tulip tree, beech, and chestnut. The lower hills and flats were covered with hickory, winged elm, hackberry, and blue ash. Cedar glades were prominent in the inner basin.

Site 40DV247 is set within the Carolinian Biotic Province (Dice 1943) which is characterized by a rich and diverse faunal assemblage. Mammals native to the study area include white-tail deer, elk, black bear, mountain lion, gray wolf, raccoon, bobcat, fox, mink, otter, skunk, weasel, muskrat, woodchuck, squirrel, cottontail, and opossum. Birds such as the eagle, hawk, owl, turkey, quail, passenger pigeon, goose, duck, mallard, and teal were also important resources for prehistoric residents. Numerous varieties of snakes, frogs, turtles, fish, and mollusks also occur within his province.

Site Setting and Description

The 40DV247 site area is located within a dissected upland zone that overlooks the floodplain of the Cumberland River (see Figure 1). That portion of the site examined during the spring 1992 investigation (designated “Area C” in 1987 and referred to throughout this report as “Brandywine Pointe”) consists of a gently sloping ridge top with an elevation between 480 and 500 feet AMSL. Prior to the creation of Old Hickory Lake, this ridge was probably some 300 meters south of the original Cumberland River channel. Today, the site area occupies the left descending (south) bank of the reservoir at approximately River Mile 221.8. Historic settlement of this area resulted in extensive tree removal and farming activity. However, some forest growth has been reestablished along the lake shoreline and intermittent stream margins.

Brandywine Pointe was defined by a moderate to dense amount of prehistoric material which covered a somewhat rectangular area 200 meters north to south by 125 meters east to west. Numerous temporally sensitive artifacts, representative of a broad range of prehistoric occupation, were recovered from the site area. The Mississippian structure (and associated features) was spatially restricted to a small zone (about 30 square meters) along the eastern edge of the ridge that overlooks an intermittent stream valley.

RESEARCH DESIGN AND FIELD METHODOLOGY

The Brandywine Pointe developers were aware that the project area had the potential to contain prehistoric and/ or historic graves based upon the results of the 1987 investigations. With this possibility in mind, the private consulting firm of DuVall & Associates, Inc. was hired several months before any earthmoving activities to identify cemeteries or isolated burials that might occur within the project area. By conducting this investigation prior to construction, any graves that were present within the project area could be treated in accordance with provisions of the Tennessee cemetery statutes (see Moore 1989[1]) without the loss of project time.

To accomplish the specific goal of identifying cemetery areas, the consultants initially placed twenty-one plow strips at ten-foot intervals across the ridge top to assess the nature of the archaeological deposits and identify locales with a high potential for human burials. A controlled surface collection of the ridge top was then performed, with only temporally diagnostic artifacts or tools actually collected. Those areas that exhibited dense surface concentrations of artifacts were further investigated by carefully stripping the overburden with a backhoe to sterile subsoil. Additional backhoe trenches were randomly placed across the ridge top in a further attempt to identify potential burial features (Figure 2).

In addition to the mechanical investigation, fourteen 1 x 1 m test units were hand excavated in arbitrary 10-cm levels across the site area (see Figure 2). All features, whether uncovered by backhoe or hand excavations, were examined by trowel to determine if they contained human remains. Feature fill was screened through ¼-inch wire mesh, with a one- to two-liter sample of fill brought back to the laboratory for additional analysis including waterscreen and/or flotation.

During the course of the consultant investigations, an approximate 30-meter square area of extremely dark soil containing shell-tempered ceramic sherds was exposed along the eastern edge of the site (see Figure 2). Further testing within this dark area revealed a series of postmolds representative of a structure corner. In consultation with the owner and archaeological consultants, the TDOA agreed to uncover and record the structure.

As often happens during private construction projects, schedules and labor restrictions require compromises in terms of data recovery techniques. Since the archaeological consultant had already provided a small control sample of midden artifacts from six test units (TU 7–12) within the structure area, the plowzone midden was removed with a backhoe in order to expose the more critical structure features. Following mechanical stripping of the overburden, shovels and trowels were used to expose the structure and associated features. All structural features (including postmolds) were labeled, mapped, and subsequently excavated by trowel. Fill was screened through ¼-inch wire mesh, with standard plan view and cross section profiles completed for each feature. Feature fill containing significant quantities of charcoal was bagged in the field and waterscreened through fine window mesh in the laboratory.

[1] See also Moore 1998

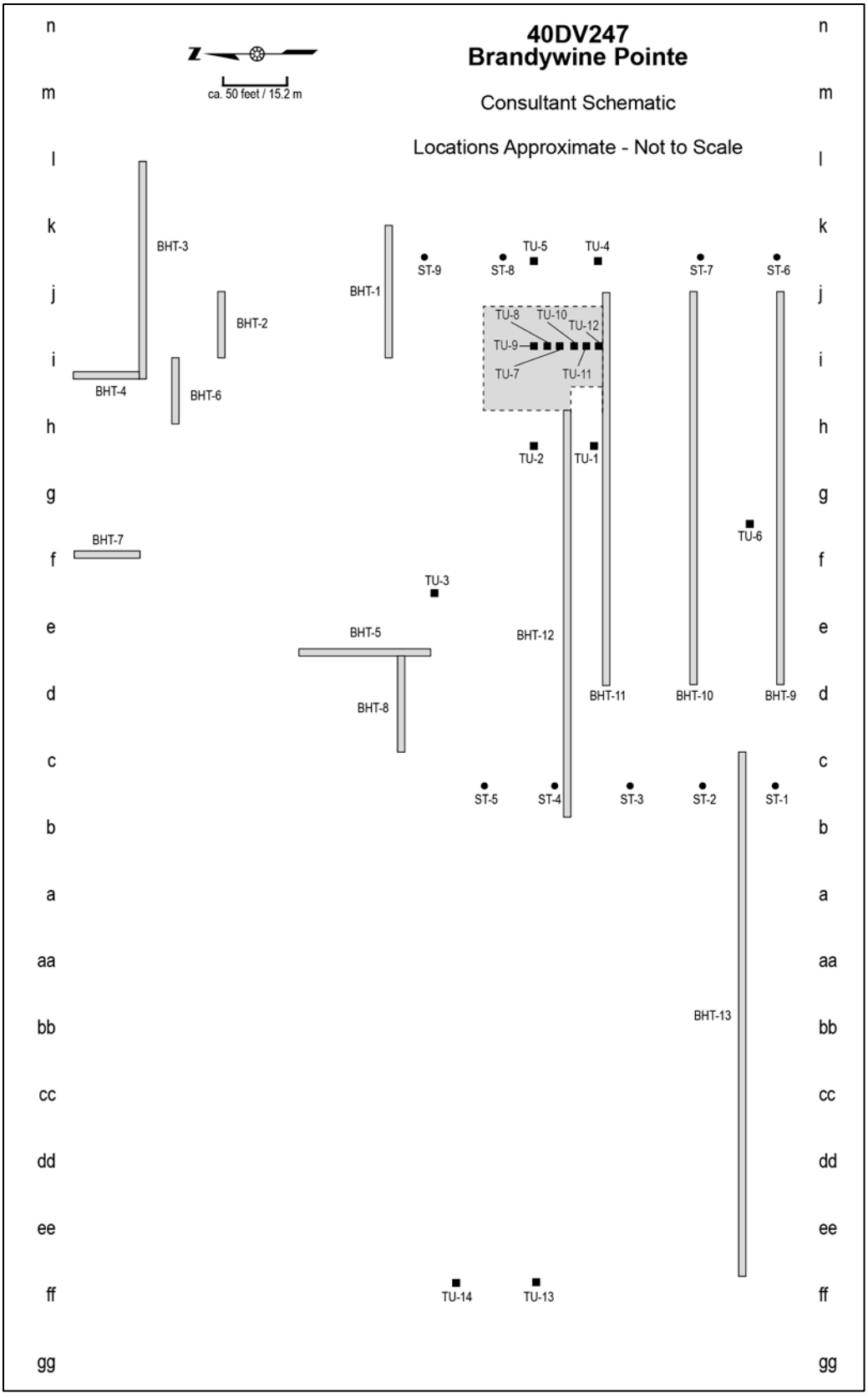

Figure 2. Schematic map of archaeological consultant excavations at Brandywine Pointe, Area C.

One historic building site (represented by a chimney base, root cellar, and adjacent dark area) was also uncovered during the consultant investigations. This particular structure is believed to date to the second half of the nineteenth century AD, and probably represents a slave or later tenant house (S.D. Smith 1992). The chimney and associated features were mapped and photographed, with all feature fill removed by trowel and screened through ¼-inch wire mesh. An in-depth analysis of the recovered artifacts is currently underway by Dr. Larry McKee, staff archaeologist at the Hermitage.[2]

[2] Analysis of these materials remains incomplete as of 2018.

STRATIGRAPHY

Stratigraphic profiles of the test units and backhoe trenches excavated by DuVall & Associates, Inc. were able to document that much of the site area had been severely affected by previous historic clearing and/or farming activities. The only area of substantial intact cultural deposits was associated with the Mississippian structure along the eastern portion of the site.

All of the excavation profiles displayed an upper zone of brown clay loam which ranged from 24 cm- to 40 cm-thick. This layer of disturbed soil was generally deeper in downslope areas than in upslope settings. A sterile, yellowish-brown clay subsoil lay beneath the upper disturbed zone across most of the site area.

A remnant of midden covered an area of approximately 30 square meters along the east-central section of the ridge projection. This locale of dark brown to black clay loam coincided with the Mississippian structure area and was quite variable in depth. For example, Test Unit 7 just southeast of the structure documented a midden layer about 6 cm thick, whereas Feature 20 (a localized area of deeper midden immediately south of the structure) was determined to be about 30 cm thick. The structure appears to have been built on top of an existing midden deposit which measured about 10 cm from the point of contact with intact house features to the subsoil. This particular midden yielded a variety of Archaic and Woodland period projectile points. The midden rapidly disappears along the north and east edges of the structure.

FEATURE DESCRIPTIONS

A total of 104 feature designations (A–F, 1–98) were assigned during the 1992 investigations (Table 1). Fifteen designations were minimally examined due to their suspect nature, and another five features were determined to be modern tree roots or rodent burrows. Most of the identified prehistoric features were associated with the Mississippian period structure. Several refuse filled pits and isolated postmolds were also defined (Figure 3). The Mississippian structure and all other prehistoric features from the site area are described below.

Feature C

Type: Refuse Pit.
Plan view and Dimensions: Roughly circular, 60 cm north- south by 56 cm east-west.
Profile: Basin-shaped with rounded base.
Depth: 12 cm.
Associated Artifacts: Burned animal and human bone.
Remarks: Small fragments of burned animal (and possibly human) skeletal remains were recovered from the pit fill. No evidence for a fire, such as baked clay or burned earth, was observed within the pit. These observations indicate this feature was not a roasting oven or hearth, and that the skeletal remains were deposited after they were burned. The top part of this feature was likely removed by farming activity.

Feature 1

Type: Postmold.
Plan view and Dimensions: Round, 28 cm in diameter.
Profile: Nearly vertical walls with a pointed base.
Depth: 29 cm.
Associated Artifacts: Lithics.

Feature 4

Type: Refuse Pit.
Plan view and Dimensions: Oval, 68 cm north-south by 46 cm east-west.
Profile: Steep, inward-sloping sides and flat bottom.
Depth: 5 cm.
Associated Artifacts: Ceramics, lithics, faunal/floral remains.
Remarks: Only a remnant of the original feature is present.

Feature 8

Type: Postmold.
Plan view and Dimensions: Circular, 31 cm in diameter.
Profile: Steep, inward-sloping walls with slightly rounded base.
Depth: 39 cm.
Associated Artifacts: Lithics.

Table 1. List of Assigned Feature Numbers from the 1992 Excavations of 40DV247.

Feature	Type	Comments and/or Associated Artifacts
A	Pit?	
B	Unknown	Not investigated.
C	Pit	Secondary deposit of charred human and animal bone.
D	Unknown	Not investigated.
E	Unknown	Not investigated.
F	Unknown	Not investigated.
G	Unknown	Not investigated.
1	Postmold	Lithics.
2	Unknown	Not investigated.
3	Postmold?	Not excavated.
4	Pit	Ceramics, lithics, faunal and floral remains.
5	Unknown	Not investigated.
6	Tree root	Lithics.
7	Unknown	Ceramics and lithics.
8	Postmold	Lithics.
9	Unknown	Not investigated.
10	Postmold	Ceramics, lithics, and faunal remains.
11	Unknown	Not investigated.
12	Pit	Ceramics and lithics.
13	Tree root	
14	Pit	Ceramics, lithics, faunal and floral remains.
15	Postmold	Ceramics and lithics.
16	Unknown	Not investigated.
17	Postmold	Ceramics and lithics.
18	Unknown	Not investigated.
19	Pit	Ceramics, lithics, faunal and floral remains.
20	Midden	Remnant midden deposit adjacent to structure. Ceramics, lithics, and faunal remains.
21	Rodent burrow	
22	Rodent burrow	
23	Unknown	Not investigated.
24	Unknown	Not investigated.
25	Rodent burrow	
26	Postmold	
27	Postmold	Ceramics and lithics.
28	Postmold	Ceramics and lithics.
29	Postmold	
30	Postmold	Lithics.
31	Postmold	
32	Postmold	Structure exterior (work/storage area?). Ceramics and lithics.
33	Postmold	Structure exterior (work/storage area?). Ceramics and lithics.
34	Postmold	Structure exterior (work/storage area?).
35	Postmold	Structure exterior (work/storage area?). Lithics.
36	Postmold	Structure exterior wall. Lithics.
37	Postmold	Structure exterior wall. Lithics.
38	Postmold	Structure exterior wall. Ceramics and lithics.
38A	Postmold	Structure exterior wall. Lithics and faunal remains.
39	Postmold	Structure exterior wall. Lithics.
40	Postmold	Structure exterior wall. Lithics.
41	Postmold	Structure exterior wall.
42	Postmold	Structure interior. Lithics.
43	Postmold	Structure exterior wall.
44	Postmold	Structure exterior wall.
45	Postmold	Structure exterior wall.
46	Postmold	Structure interior (partition?).
47	Postmold	Structure exterior wall. Lithics.
48	Postmold	Structure interior (partition?).
49	Postmold	Structure interior (partition?).
50	Postmold	Structure interior (partition?).
51	Postmold	Structure interior (partition?). Lithics.
52	Postmold	Structure interior support post. Ceramics and lithics.
53	Hearth	Structure interior. Ceramics, lithics, and faunal remains.
54	Postmold	Structure interior support post. Ceramics, lithics, faunal and floral remains.
55	Postmold	Structure exterior wall. Lithics and floral remains.
56	Postmold	Structure exterior wall.
57	Postmold	Structure interior (partition?).
58	Postmold	Structure exterior wall.
59	Postmold	Structure exterior wall Lithics.

Table 1 (continued).

Feature	Type	Comments and/or Associated Artifacts
60	Postmold	Structure exterior (doorway?).
61	Postmold	Structure exterior (doorway?).
62	Postmold	Structure exterior wall. Lithics.
63	Postmold	Structure exterior wall. Lithics.
64	Postmold	Structure exterior wall. Lithics.
65	Postmold	Structure exterior wall. Ceramics and lithics.
66	Postmold	Structure exterior wall.
67	Postmold	Structure exterior wall. Lithics.
68	Burial	Structure interior. Newborn/infant stone-box.
69	Postmold	Structure interior support post. Lithics.
70	Postmold	Structure interior (support or partition?). Lithics.
71	Postmold	Structure exterior wall. Lithics.
72	Postmold	Structure interior support post. Ceramics and lithics.
73	Postmold	Structure exterior wall. Lithics.
74	Postmold	Structure exterior wall. Lithics.
75	Postmold	Structure exterior wall. Lithics.
76	Postmold	Structure exterior wall. Lithics.
77	Postmold	Structure exterior wall. Lithics.
78	Postmold	Structure exterior wall. Lithics.
79	Postmold	Structure exterior wall. Ceramics and lithics.
80	Postmold	Structure exterior wall. Lithics and floral remains.
81	Postmold	Structure exterior wall. Lithics.
82	Postmold	Structure exterior wall. Lithics.
83	Postmold	Structure exterior wall. Lithics.
84	Postmold	Structure exterior wall. Lithics.
85	Postmold	Structure exterior wall. Lithics.
86	Postmold	Structure exterior wall. Lithics.
87	Postmold	Structure exterior wall. Lithics.
88	Postmold	Structure exterior wall. Lithics.
89	Postmold	Structure exterior wall. Lithics.
90	Postmold	Structure exterior wall. Lithics.
91	Postmold	Structure exterior wall. Lithics.
92	Postmold	Structure exterior wall. Lithics.
93	Postmold	Structure exterior wall. Ceramics and lithics.
94	Postmold	Structure exterior wall. Lithics.
95	Postmold	Structure interior (support or partition?).
96	Unknown	Structure interior, bowl-shaped cluster of limestone slabs.
97	Postmold	Structure interior (partition?).
98	Postmold	Structure interior (partition?).

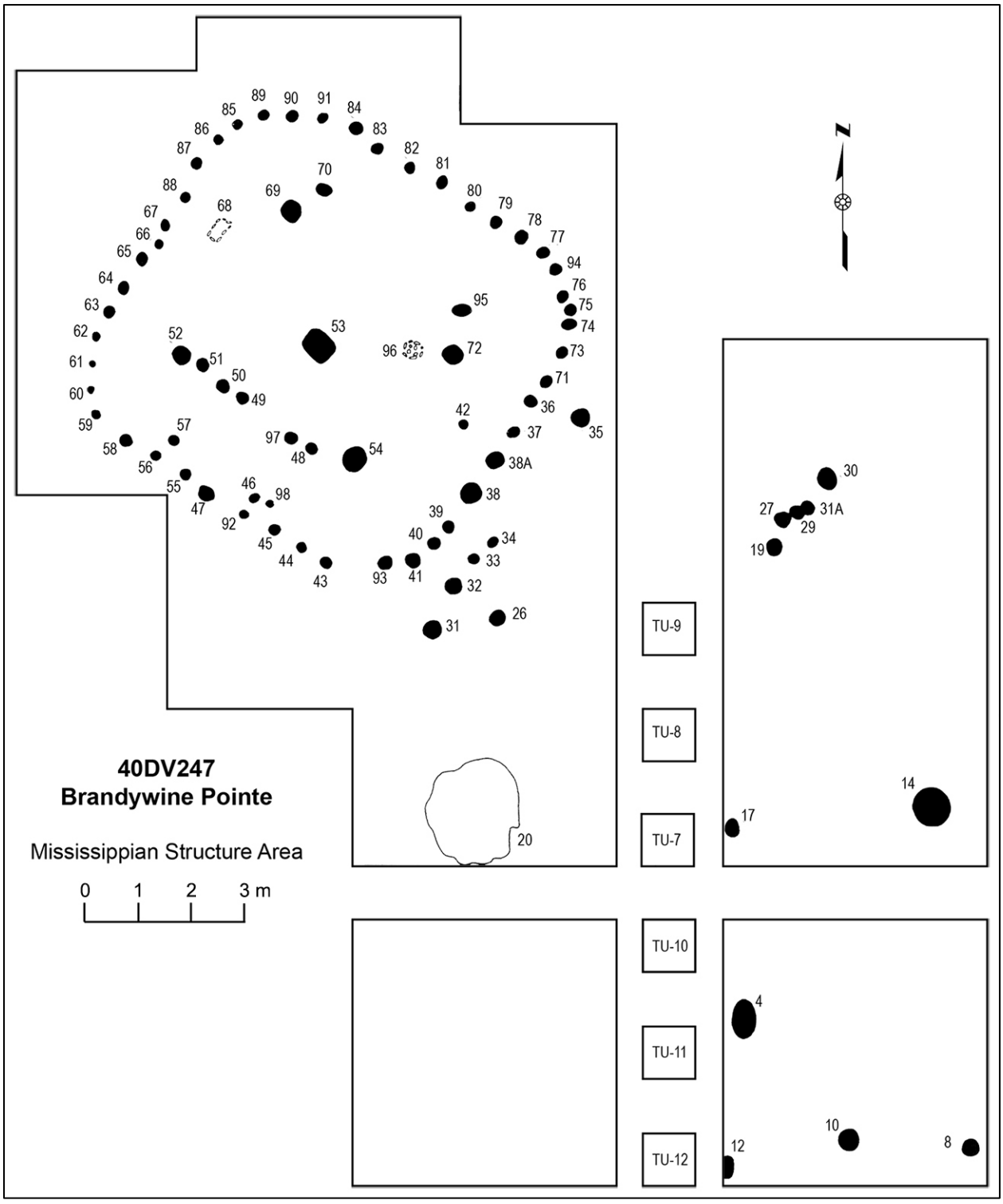

Figure 3. Identified prehistoric features in the Mississippian structure area.

Feature 10

Type: Postmold.
Plan view and Dimensions: Roughly circular, 20 cm north-south by 23 cm east-west.
Profile: Vertical walls with rounded base.
Depth: 38 cm.
Associated Artifacts: Ceramics, lithics, faunal remains.

Feature 12

Type: Refuse Pit.
Plan view and Dimensions: Oval, 40 cm north-south by 30 cm east-west.
Profile: Basin-shaped with round base.
Depth: 20 cm.
Associated Artifacts: Ceramics and lithics.

Feature 14

Type: Refuse Pit.
Plan view and Dimensions: Circular, 67 cm in diameter.
Profile: Roughly basin-shaped with undulating base.
Depth: 31 cm.
Associated Artifacts: Ceramics, lithics, faunal/floral remains.

Feature 15

Type: Postmold.
Plan view and Dimensions: Oval, 30 cm north-south by 38 cm east-west.
Profile: Top 12 cm of feature exhibit sharply inward-sloping walls which then turn vertical, base is slightly rounded.
Depth: 26 cm.
Associated Artifacts: Ceramics and lithics.

Feature 17

Type: Postmold.
Plan view and Dimensions: Circular, 29 cm north-south by 31 cm east-west.
Profile: Steep, inward-sloping walls with pointed base.
Depth: 54 cm.
Associated Artifacts: Ceramics and lithics.

Feature 19

Type: Postmold.
Plan view and Dimensions: Oval, 30 cm north-south by 25 cm east-west.
Profile: Steeply sloped walls with irregular base.
Depth: 41 cm.
Associated Artifacts: Ceramics, lithics, faunal/floral remains.
Remarks: Numerous shell-tempered sherds and a fairly large sample of honey locust seeds were recovered from the base of this feature.

Feature 20

Type: Midden remnant.
Plan view and Dimensions: Roughly rectangular, about 2.0 m by 1.5 m.
Profile: N/A.
Depth: Approximately 30 cm.
Associated Artifacts: Ceramics, lithics, faunal/floral remains.
Remarks: Area of very dark soil and dense artifact concentration just south of Mississippian structure.

Feature 26

Type: Postmold.
Plan view and Dimensions: Oval, 28 cm north-south by 21 cm east-west.
Profile: Steep, inward-sloping walls and round base.
Depth: 12 cm.
Associated Artifacts: None.

Feature 30

Type: Postmold.
Plan view and Dimensions: Oval, 25 cm north-south by 33 cm east-west.
Profile: Gently inward-sloping walls and round base.
Depth: 8.5 cm.
Associated Artifacts: Lithics.
Remarks: Very shallow post remnant.

Mississippian Structure (Features 31–98)[3]

The structure represented a fine example of Mississippian period architecture with most, if not all, of its features at least partially intact (Figures 4 and 5). The building was square with rounded corners and walls measuring 6 m on a side. No wall trenches were associated with this structure, and exterior wall posts were closely spaced at approximately 30 cm intervals (Table 2). The structure interior yielded four center support posts, a central puddled-clay hearth, an infant stone-box burial[4], and an unusual limestone feature. A series of small interior posts aligned with several of the center support posts probably represent wind screens or partitions, since they are located between the hypothesized entrance(s) on the southern wall of the structure and the central puddled-clay hearth. A row of exterior posts along the southeast corner of the building may represent the remains of a covered work or storage area facility.

No visible prepared floor was distinguished during the excavations, suggesting that the living surface had been disturbed by previous clearing or plowing activities. The interior structure fill was homogeneous from the base of the plowzone to subsoil, and consisted of a somewhat thin layer of dark brown clay loam containing minute particles of burned earth and charcoal flecks. This fill zone may have been an earlier midden remnant disturbed by the house construction. Daub was not observed during mechanical stripping nor recovered from the

[3] For comparative information on Mississippian structures from the region, see Steere and Deter-Wolf (2013: 63).
[4] The remains from this grave were reburied in accordance with state law.

house area or interior features (including postmolds). The absence of this particular building material strongly implies that the structure did not burn. In a related note, the only sample of baked clay from the building was found near the central hearth. The absence of renovation posts and overlapping wall elements suggests that no substantial reconstruction work was attempted on the structure.

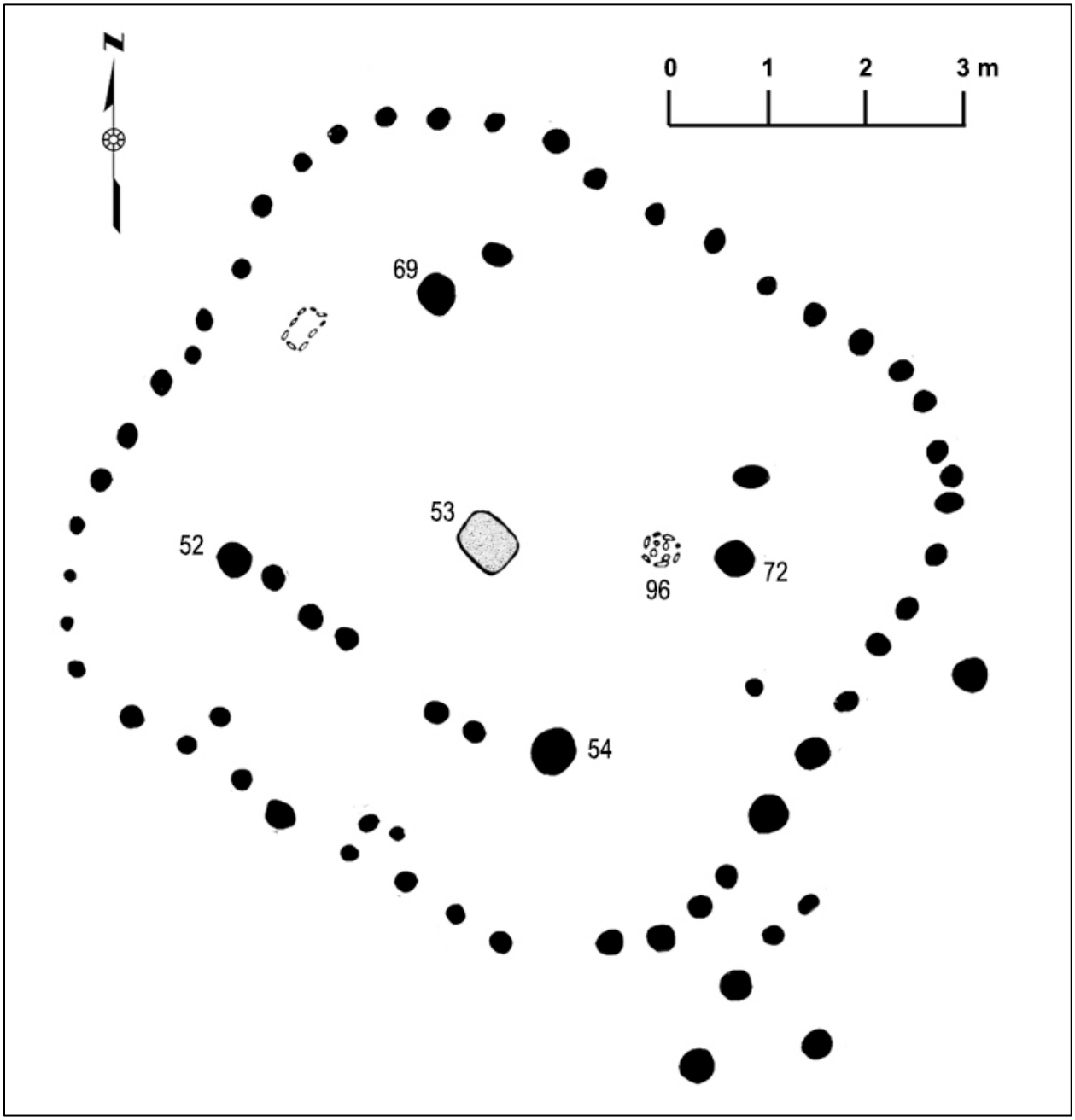

Figure 4. Map of Mississippian structure post pattern.

Figure 5. Photograph of Mississippian structure from the Brandywine Pointe site.

Table 2. Measurements of Posts from Brandywine Pointe Structure.*

Feat No.	Plan View	Max Diam	Max Lngth	Max Wdth	Max Dpth	Profile and/or Comments
36	oval	-	26	21	30	Sharp inward sloping walls to a pointed base.
37	circular	21	-	-	25	Straight walls with rounded base.
38	circular	44	-	-	23	Tapered walls to flat base. Shelf along north wall. Heavy root disturbance.
38A	circular?	25	-	-	22	Tapered walls with pointed base. Tree root disturbance.
39	circular	22	-	-	29	Straight walls with flat base.
40	circular	19	-	-	31	Straight walls with flat base.
41	circular	26	-	-	34	Straight walls to irregular base. Shelf on south wall.
42	circular	18	-	-	10	Straight to tapered walls with rounded base.
43	NA	-	-	-	-	-
44	circular	20	-	-	20	Straight walls with irregular flat base.
45	oval	-	25	22	36	Steep, inward sloping walls with rounded base.
46	circular	20	-	-	20	Straight walls to rounded base. Shelf along west wall.
47	circular	30	-	-	50	Straight walls to irregular base. Rodent disturbed.
48	circular	17	-	-	14	Straight walls with a flat to rounded base.
49	circular	19	-	-	14	Straight walls with a flat base.
50	circular	18	-	-	13	Straight walls with a flat base.
51	NA	-	-	-	-	-
52	NA	-	-	-	-	-
54	oval	-	36	26	3-8	North wall slopes inward, other walls generally straight, base rounded to pointed.
55	circular	24	-	-	24	Straight walls, slight shelf on west wall, flat base.
56	circular	21	-	-	25	Walls gently taper to rounded base.
57	NA	-	-	-	-	-
58	circular	22	-	-	21	Sharp inward sloping walls to pointed base.
59	circular	24	-	-	30	Straight walls, shelf along west wall, flat base.
60	circular	12	-	-	11	Tapered walls with rounded to pointed base.
61	circular	15	-	-	14	Tapered walls with rounded to pointed base.
62	oval	-	25	17	23	Straight walls, shelf on southwest wall, rounded base.
63	circular	20	-	-	23	Straight walls to irregular base.
64	circular	21	-	-	19	Straight walls with to irregular flat base
65	circular	21	-	-	29	Tapered walls to irregular flat base.
66	circular	20	-	-	20	Slanted walls with flat base.
67	circular	20	-	-	17	Straight walls to relatively flat base.
69	circular	29	-	-	33	Straight walls with flat to rounded base.
70	oval	-	31	25	40	Sharp inward sloping walls to a pointed base.
71	circular	26	-	-	25	Straight walls to flat base.
72	circular	39	-	-	37	Tapered walls to irregular base. Rodent disturbed.
73	circular	21	-	-	28	Straight walls to rounded base.
74	circular	21	-	-	21	East wall straight, west wall tapers to rounded base.
75	circular	21	-	-	18	Straight walls with rounded base.
76	oval·	-	20	15	23	Straight walls with rounded base, shelf on east wall.
77	circular	25	-	-	34	Tapered walls to rounded base.
78	circular	26	-	-	28	Tapered walls to rounded base. Shelf on south wall.
79	circular	26	-	-	40	Tapered walls to sloping base. Shelf along south wall.
80	circular	23	-	-	35	Tapered walls to rounded base.
81	circular	22	-	-	33	Tapered walls to rounded base.
82	circular?	19	-	-	30	Straight walls to flat base.
83	oval	-	22	20	30	Straight walls to flat base, shelf on south/east wall.
84	circular	25?	-	-	20	Straight walls to irregular base. Rodent disturbed
85	circular	20	-	-	29	Straight walls to flat base.
86	circular	20	-	-	20	Straight walls with an irregular base.
87	circular	19	-	-	15	Slanted walls with rounded to flat base.
88	circular	18	-	-	16	Straight walls to rounded base.

Table 2 (continued).

Feat No.	Plan View	Max Diam	Max Lngth	Max Wdth	Max Dpth	Profile and/or Comments
89	circular	20	-	-	20	Straight walls to rounded(?) base. Rodent disturbed.
90	circular	22	-	-	25	Straight walls to irregular base. Shelf on north wall.
91	oval	-	22	20	28	Straight walls to rounded base. Shelf on south wall.
92	circular	30?	-	-	30?	Straight walls to irregular base. Rodent disturbed.
93	circular	26	-	-	44	Straight walls to irregular base.
94	circular	23	-	-	28	Tapered walls to pointed base.
95	oval	-	39	30	29	Tapered walls to rounded base.
97	NA	-	-	-	-	-
98	NA	-	-	-	-	-

* = measurements in mm
NA = measurements not available

Excavation of the central hearth revealed an essentially intact feature, with only minimal plow damage to the very top and some rodent activity within the interior (Figure 6). This squarish feature had rounded corners and measured 71 cm from the northwest wall to southeast wall, 68 cm from the northeast wall to southwest wall, and 17 cm deep from initial identification to the base. Hearth fill was a dark brown to black clay containing the remnants of a shell-tempered jar and numerous chert flakes. High expectations for datable materials from this feature proved fruitless, since the fill yielded no charcoal and vandals destroyed the hearth prior to procurement of archaeomagnetic samples.

Fortunately, a cross-section profile of the hearth was completed prior to its destruction, yielding evidence of three separate construction stages (Figure 7). The base was simply a level area of fired clay approximately two centimeters thick. The second stage was comprised of a basin-shaped, molded clay layer placed on top of and separated from the level burned area by a thin layer of dark soil (roughly one centimeter thick). The final construction stage consisted of a liner of limestone-tempered clay plastered directly onto the interior walls of the basin, presumably to refurbish the existing hearth.

Another interior feature was initially identified by the presence of a scatter of small fragmentary limestone slabs in the plowzone. During clearing of the area with shovels and trowels, several small, thin limestone slabs were identified in situ along the western edge of a slight depression filled with dark loamy soil. Prior investigations at sites within the region suggested the possibility that this feature represented the remnants of an infant or child stone-box grave. The dark fill adjacent to the fragmentary limestone slabs was carefully examined in the field for evidence of skeletal fragments. Although initial field examinations failed to identify artifacts or skeletal remains, the soil was bagged for a more thorough examination in the laboratory. Subsequent fine-mesh screening of the fill yielded a single small bone fragment identified as a clavicle from a human newborn or infant.

A second limestone-lined feature was identified roughly one meter east of the hearth (Figure 8). Excavation revealed several small, tabular limestone fragments vertically set to a depth of approximately 30 cm in a gently outward slanting circular pattern approximately 40 cm in diameter. The base was comprised of tabular limestone fragments laid flat to complete

Figure 6. Photograph of Mississippian structure hearth.

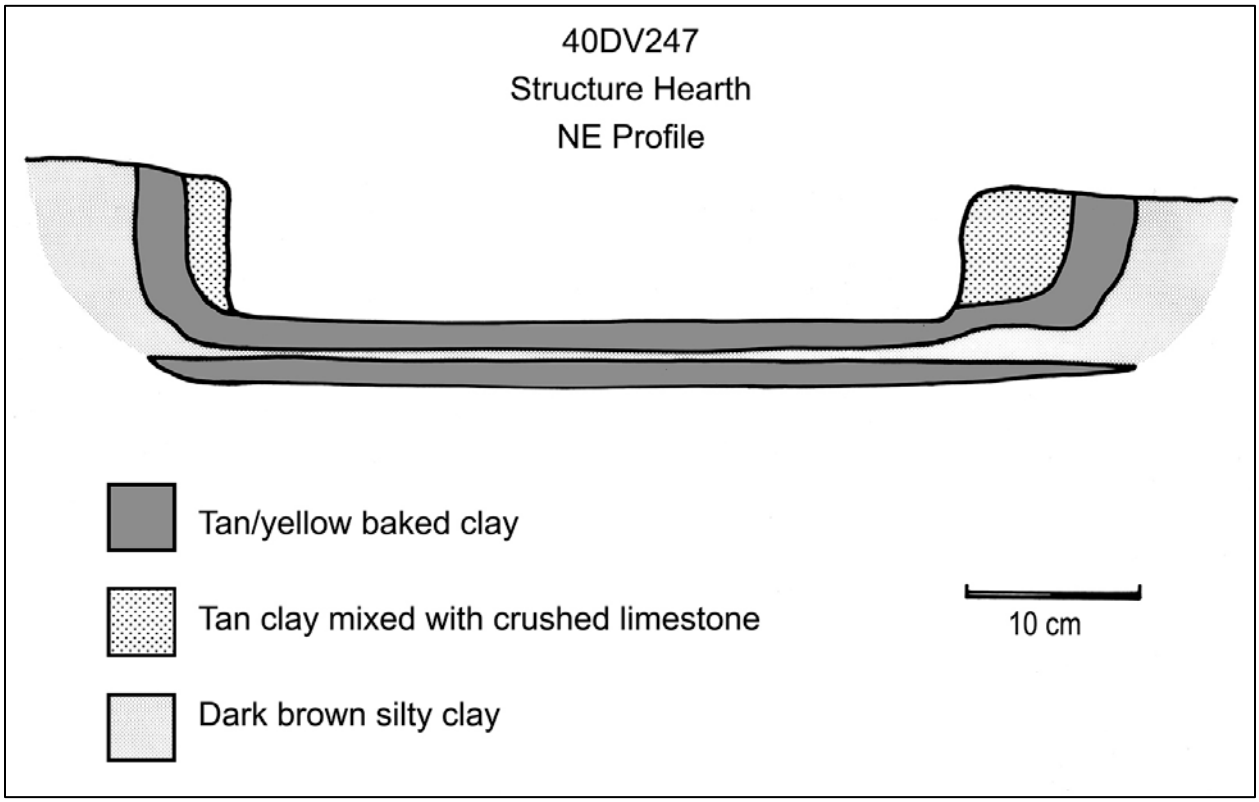

Figure 7. Cross section of Mississippian structure hearth.

strongly resembled a stone bowl in profile. Although the limestone fragments appear to have been exposed to heat, none exhibited signs of intense or direct burning. Although the stone-lined “bowl” was constructed from the same materials as the infant stone grave, the construction techniques and nature of feature fill preclude any consideration of the feature as a burial. Unfortunately, this feature was also destroyed by vandals before it could be adequately drawn or profiled. Based on proximity to the hearth, the authors suggest a possible cooking related function for the feature. Although alternative interpretations could fill volumes, the limestone bowl could have been lined with skins and filled with water or other liquids for stone boiling.

Figure 8. Unusual limestone feature from interior of Mississippian structure.

RADIOCARBON DETERMINATIONS

Three charcoal samples from this structure were submitted for radiocarbon analysis. A nutshell sample from an interior support post (Feature 54) yielded a date of 960±70 B.P. (Tx-7687), with a calibrated date of AD 1007[1030]1163 (Stuiver and Becker 1986). Wood charcoal samples from two exterior wall posts (Features 62 and 91) produced dates of 860±60 B.P. (OX-7688) and 690±60 B.P. (Tx-7689), respectively. Calibrated dates for these features are AD 1047[1182]1246 and AD 1267[1281]1375, respectively.

The three samples submitted for radiocarbon determinations were selected on the basis of field observations concerning contextual integrity. Some of the exterior wall posts yielding carbon samples were excluded from consideration because of evidence for substantial rodent and other post-occupational disturbances. Although Features 62 and 91 (exterior wall postholes) did not appear substantially disturbed, it should be noted that the charred wood samples from these features represent the consolidation of mixed charcoal from fill rather than samples from fragmentary post remains. Carbon in the form of charred nutshell from Feature 54 was selected because of the wealth of directly associated botanical samples suggesting deposition during occupation of the structure (i.e. charred prehistoric maize cobs and kernels). As such, the sample from Feature 54 is considered the most reliable of the three samples.

The large chronological range represented in the three samples (ca. AD 1007–1375, one standard deviation; AD 960–1400, two standard deviations) does not correlate well with the structural and artifactual evidence. Review of available data (Cole and Albright 1983; Larson 1972) suggests that substantial renovation of post-in-ground structures would have been necessary within a conservative range of every twenty years, if not more often. The absence of evidence for such renovations at Brandywine Pointe suggests that the structure was occupied for substantially less than three decades. Due to the broad ranges of the sample, some discussion of the radiocarbon dates is merited.

As noted previously, the charred nutshell sample from Feature 54 is considered to express the most reliable prehistoric context. The sample from Feature 62 overlaps considerably with Feature 54 at a single standard deviation, while the sample from Feature 91 fails to overlap with the former two dates at a single standard deviation. Averaging of the three radiocarbon determinations suggests a likely range of occupation for the structure sometime between AD 1150 and 1250 with a calibrated midrange around AD 1220. Excluding the Feature 91 sample yields average dates falling between AD 1030 and 1180 with a calibrated midrange of around AD 1090 or 1100.

A farmstead in western Davidson County, 40DV68, yielded a highly comparable single radiocarbon date of 930±60 B.P. (Tx-6998), with a corrected date of AD 990[1040, 1095, 1119, 1140, 1151]1230 (Norton and Smith 2015[5]). The artifactual assemblage from the site is also very similar in terms of ceramic vessel form, although cordmarked and smoothed-over cordmarked is more common at 40DV68.

[5] Cited as being “in press” for 1993 in the original report.

ARTIFACT DESCRIPTIONS

Lithics

Over 8,400 lithic artifacts were recovered from the Brandywine Pointe site (Table 3). This total includes a small sample of 24 items from a collector who visited the area during the project, as well as 12 projectile points found during the 1987 investigations. All artifacts were analyzed and placed into one of 24 categories based upon certain formal and/or functional characteristics. The specific categories include tested cobble, core, thick biface, thin biface, primary flake, secondary flake, blank flake, blocky debris, modified flake scraper, end scraper, side scraper, unidentified scraper fragment, projectile point, knife, drill, celt, celt rejuvenation flake, discoidal, hammerstone, nutting stone, mano, metate, abrader, and unidentified incised. Descriptions of these categories and particular artifacts assigned to them are presented below.

Chipped Stone Artifacts

Tested Cobbles and Cobble Fragments (*n*=2)

Both specimens assigned to this category were stream-rolled chert cobbles which had one flake removed from a lateral edge. These somewhat small cobbles retained their original shape and at least 75% of their cortex.

Cores and Core Fragments (*n*=136)

Cores were identified as those cobbles and cobble fragments that displayed regular patterns of flake removal. All of the Brandywine Pointe cores were small to moderate in size. Most of the sample displayed multi-directional (not bi-polar) flake scars suggesting the flakes were detached in an opportunistic manner. Several moderate-size specimens did have flakes removed in a sequential order from a platform prepared by removing one flake from the cobble edge. No evidence for core rejuvenation was observed in the assemblage.

Thick Bifaces (*n*=24)

These artifacts are represented by small to moderate size cobbles and cobble fragments that were bifacially worked and minimally shaped. Large flake scars, sinuous edges, and thick cross sections comprise the primary characteristics of artifacts assigned to this category. Thick bifaces display variable percentages of cortex on their exterior surfaces.

Thin Bifaces (*n*=21)

Thin bifaces are the result of continual modification of thick bifaces, or the bifacial modification of large flakes. These artifacts have thinner cross sections and less sinuous edges than thick bifaces. All cortex has been removed from these specimens.

Table 3. Provenience and Number of Lithic Artifacts Recovered from the 1992 Excavations of 40DV247.

Provenience	Tst Cob	Cor	Thk Bif	Thn Bif	Prm Flk	Secd Flak	Blnk Flak	Blky Dbrs	Mod Flk Scr	End Scr	Sid Scr	Und Scr	Prj Pnt	Knf	Drl	Clt	C/H Rej Flk	Dis	Nut Stn	Mno	Met	Abr	Und Inc	Hmr Stn	TOTAL
Gen Surface	-	-	-	-	-	-	-	-	-	9	2	-	72*	-	7	-	-	-	2	-	-	-	1	-	93
Shovel Tst 1	-	-	-	-	2	4	59	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69
Shovel Tst 2	1	-	-	-	-	6	35	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45
Shovel Tst 3	-	2	-	1	-	9	37	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57
Shovel Tst 4	-	-	-	-	1	6	31	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49
Shovel Tst 5	-	-	-	1	2	6	27	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
Shovel Tst 6	-	-	-	-	1	4	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24
Shovel Tst 7	-	1	-	1	-	5	32	9	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	49
Shovel Tst 8	-	3	-	-	1	13	80	28	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	126
Shovel Tst 9	-	3	-	-	1	8	59	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81
Shovel Tst 10	-	-	-	-	-	6	43	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54
Bckhoe Tst 3	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Bckhoe Tst 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Bckhoe Tst 10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Test Unit 1																									
L1, 0-10cm	-	-	-	-	-	5	58	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80
L2, 10-20cm	-	2	1	-	-	13	66	25	-	1	-	-	1	-	1	-	-	-	-	-	-	-	-	-	110
L3, 20-30cm	-	-	-	-	-	1	26	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31
Test Unit 2																									
L1, 0-10cm	-	1	-	-	1	6	121	35	-	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	167
L2, 10-20cm	-	3	-	-	2	11	93	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	131
L3, 20-30cm	-	1	1	1	6	16	105	15	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	146
L4, 30-40cm	-	1	1	-	3	20	70	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	110
Test Unit 3																									
L1&2, 0-20cm	-	6	1	-	5	33	366	43	-	1	-	-	2	-	2	-	-	-	-	-	-	-	-	-	459
L3, 20-30cm	-	-	-	-	2	14	62	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	86
L4, 30-40cm	-	1	-	-	1	4	21	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
Test Unit 4																									
L1, 0-10cm	-	2	-	-	2	11	123	36	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	175
L2, 10-20cm	-	5	1	-	2	12	88	12	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	121
L3, 20-30cm	-	-	1	1	2	8	55	9	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	77
Test Unit 5																									
L1, 0-10cm	-	4	-	-	2	14	155	40	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	217
L2, 10-20cm	-	3	-	-	10	34	146	27	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	222
L3, 20-30cm	-	2	-	1	2	7	63	18	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	97
Test Unit 6																									
L1, 0-10cm	-	2	-	1	8	19	127	16	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	174
L2, 10-20cm	-	2	-	-	4	11	63	13	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	94
L3, 20-30cm	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Test Unit 7																									
L1, 0-10cm	-	3	-	1	-	16	154	37	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	213
L2, 10-20cm	-	5	1	-	6	19	142	60	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	235
L3, 20-30cm	-	-	-	-	2	14	116	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	146
Test Unit 8																									
L1, 0-10cm	-	2	-	-	3	18	148	18	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	191
L2, 10-20cm	-	3	1	2	4	27	252	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	323
L3, 20-30cm	-	3	1	-	2	18	172	24	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	221

Table 3 (continued).

Provenience	Tst Cob	Cor	Thk Bif	Thn Bif	Prm Flk	Secd Flak	Blnk Flak	Blky Dbrs	Mod Flk Scr	End Scr	Sid Scr	Und Scr	Prj Pnt	Knf	Drl	Clt	C/H Rej Flk	Dis	Nut Stn	Mno	Met	Abr	Und Inc	Hmr Stn	TOTAL
Test Unit 9																									
L1, 0-10cm	-	-	-	-	5	5	89	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	123
L2, 10-20cm	-	4	2	-	6	24	191	42	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	272
Test Unit 10																									
L1, 0-10cm	-	7	-	-	2	17	245	57	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	331
L2a, 10-15cm	-	4	-	-	2	15	81	18	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	121
L2b, 15-20cm	-	4	-	-	1	18	134	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	178
L3, 20-30cm	-	-	-	-	1	5	49	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64
Test Unit 11																									
L1, 0-10cm	-	4	-	1	3	11	153	29	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	202
L2, 10-20cm	-	4	-	-	3	22	268	39	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	337
L3, 20-30cm	-	-	-	1	-	4	45	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54
Test Unit 12																									
L1, 0-10cm	-	-	-	-	2	10	107	19	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	141
L2, 10-20cm	-	4	-	2	7	16	138	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	186
L3, 20-30cm	-	2	1	-	-	7	32	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51
Test Unit 13																									
L1, 0-10cm	-	1	-	-	-	2	15	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21
L2, 10-20cm	-	-	-	-	-	2	28	10	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	41
Test Unit 14																									
L1, 0-10cm	-	5	-	1	2	13	56	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	94
L2, 10-20cm	-	4	1	-	4	9	33	12	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	65
L3, 20-30cm	-	2	2	-	-	15	33	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57
L4, 30-40cm	-	-	-	-	-	4	18	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25
Feature 1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 4	-	2	-	-	-	3	14	7	-	-	-	-	2	-	1	-	-	-	-	-	-	-	-	-	29
Feature 6	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 7	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 10	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 12	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 14	-	-	-	-	2	6	52	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	76
Feature 15	-	-	-	-	-	1	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Feature 17	-	-	-	-	1	2	18	3	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	25
Feature 19	-	-	-	-	-	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Feature 20	-	11	-	-	8	12	174	35	-	-	1	-	2	1	2	-	1	2	-	1	-	2	-	3	255
Feature 21	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 27	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 28	-	-	-	-	-	1	14	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Feature 30	-	-	-	-	1	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 31	-	-	-	-	-	5	18	4	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	28
Feature 32	-	-	-	-	-	2	16	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
Feature 33	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 35	-	-	-	-	1	2	19	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
Structure																									
General Area	-	15	7	2	8	40	302	64	-	1	2	-	18	-	2	-	1	-	-	-	1	2	1	-	466
Feature 36	-	-	-	1	-	-	3	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 37	-	-	-	-	-	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Feature 38	-	2	-	-	-	1	12	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18

Table 3 (continued).

Provenience	Tst Cob	Cor	Thk Bif	Thn Bif	Prm Flk	Secd Flak	Blnk Flak	Blky Dbrs	Mod Flk Scr	End Scr	Sid Scr	Und Scr	Prj Pnt	Knf	Drl	C/H Clt	Rej Flk	Dis	Nut Stn	Mno	Met	Abr	Und Inc	Hmr Stn	TOTAL
Structure (continued)																									
Feature 38a	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 39	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 40	-	-	-	-	-	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 42	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 47	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 51	-	-	-	-	-	-	9	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Feature 52	-	-	-	-	-	1	17	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Feature 53	-	-	1	-	-	3	165	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	195
Feature 54	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 55	-	-	-	-	-	2	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 59	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Feature 62	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 63	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 64	-	-	-	-	-	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Feature 65	1	-	-	1	-	2	14	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24
Feature 67	-	-	-	-	-	1	8	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Feature 69	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 70	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 71	-	-	-	-	-	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Feature 72	-	-	-	-	-	1	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 73	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 74	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 75	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 76	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 77	-	-	-	-	-	1	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Feature 78	-	-	-	-	1	2	7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Feature 79	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Feature 80	-	-	-	-	1	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Feature 81	-	-	-	-	-	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Feature 82	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Feature 83	-	-	-	1	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 84	-	-	-	-	-	4	7	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Feature 85	-	-	-	-	-	1	6	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Feature 86	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 87	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 88	-	1	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 89	-	-	-	1	-	3	9	4	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	18
Feature 90	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Feature 91	-	-	-	-	-	-	27	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28
Feature 92	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 93	-	-	-	-	1	2	12	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Feature 94	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
TOTAL	2	136	24	21	139	734	5977	1180	2	15	6	3	125	3	18	1	2	2	5	1	1	5	2	5	8409

*=includes 1987 and 1992 investigations.

Flakes (*n*=6,850)

All unmodified flakes created by the manufacture and/or maintenance of chipped stone artifacts were assigned to this category. These flakes were classified as primary, secondary, or blank based on a cobble reduction sequence and the amount of cortex remaining on the dorsal surface. Primary flakes (*n*=139) display cortex over their entire dorsal surface, whereas secondary flakes (*n*=734) exhibit less than 90% cortex over their dorsal surface. Blank flakes (*n*=5,977) have no cortex except occasionally over their striking platform.

Blocky Debris (*n*=1,180)

Blocky debris comprised those angular and blocky fragments from the manufacture and/or maintenance of chipped stone tools. Such fragments were usually produced as shatter during percussion flaking.

Modified Flake Scrapers (*n*=2)

Modified flakes represent those flakes which exhibit intentional, consistent, and even flaking along one or more edges. Only one subcategory (scraper) was identified in the Brandywine Pointe assemblage based upon morphological characteristics and wear patterns. Two scraping tools (both blank flakes) were unifacially retouched along their lateral edges. Fine unifacial microflaking was visible along these same edges.

End Scrapers (*n*=15)

End scrapers assigned to this category differ from modified flake scrapers in that they have been more extensively chipped and shaped. Seven specimens represent stemmed dart points with their midsections reshaped into straight to slighly convex scraper bits. Another four scrapers appear to be dart midsections that were broken and later reworked into scraper bits. One of these items was recovered from Feature 20 and comprises the only end scraper from a feature context. Two end scraper fragments (unknown if reworked from dart points) were also found.

In addition to the above sample, two “spurred” end scrapers were recovered from the site surface by a local collector. These artifacts are associated with Paleoindian occupations in the eastern United States, including Middle Tennessee (Norton and Broster 1992: Kraft 1973).

Side Scrapers (*n*=6)

Two specimens comprise flakes extensively reworked into elongated, somewhat triangular tools with plano-convex cross sections and steep, unifacially retouched lateral edges. The tapered ends of these artifacts resemble a bit that could have been used in drilling or perforating activities. One of these items was recovered from the Mississippian structure area. A third artifact in this category consists of a large, relatively thin biface fragment with one steeply retouched lateral edge. The final three specimens represent incomplete side scraper fragments.

Unidentified Scraper Fragments (*n*=3)

Included in this category were small, unifacially retouched fragments that could not be confidently classified as end or side scrapers due to their fragmentary nature. One of these items was recovered from Feature 55 in the Mississippian structure. The other two specimens were found on the site surface or plowzone level.

Drills (*n*=18)

Four different drill styles were observed in this sample. One style comprised seven stemmed dart points with blade edges that were reworked into parallel sided to slightly contracting bits. A second style included three triangular shaped items that slightly flare outward to a flat base. The third style includes three artifacts that are T-shaped, with parallel-sided bits that dramatically flare outward to a flat base. This particular style may represent a variation of the triangular drill shape. The fourth style is represented by one specimen that exhibits a rounded base with contracting bit edges. The remaining drills in this category are bit fragments of various lengths, with one fragment measuring 73.3 mm long.

All but three drills from 40DV247 were recovered from disturbed contexts. One large T-shaped drill and a reworked stemmed dart point were found in Feature 20. Another reworked stemmed dart point was recovered from Feature 31 fill.

Projectile Points (*n*=125, Figures 9–12)

This category represents a functional grouping of stemmed and unstemmed bifaces that have been interpreted as dart and arrow points. These artifacts were classified by morphological characteristics, with previously established type names used when possible (Cambron and Hulse 1983; Justice 1987).

Eighty-five identified points recovered during the 1992 investigations include Adena Narrow Stemmed, Beaver Lake, Benton (9), Big Sandy (7; see Figure 10), Big Sandy Auriculate (see Figure 10), Clovis (2; see Figure 9), Copena (9; see Figure 11), Cotaco Creek, Cumberland, Hamilton, Jacks Reef Comer-Notched (2), Kays (4), Kirk Comer-Notched (2; see Figure 10), Ledbetter (3; see Figure 10), Little Bear Creek (5), Madison (11; see Figure 12), Mcintire (4), Morrow Mountain, Motley, Mud Creek (5), Mulberry Creek (4), Nodena, Pickwick (2), Swan Lake (3), Turkey-tail (see Figure 11), Wade (2), and White Springs (Table 4). The Adena Narrow Stemmed and Nodena points (see Figure 11) were found in Feature 20 and comprise the only points from a feature context. All other identified specimens were recovered from the site surface or plowzone level. Fourteen unidentified dart midsection and/or tip fragments comprise the remainder of this category.

A sample of 12 projectile points from the 1987 excavation of Area C was included in the point total (and listed under general surface in Table 3). These points consist of Bakers Creek (2), Big Sandy, Madison (3), Mcintire, Morrow Mountain, Mulberry Creek (2), Swan Lake, and Turkey-tail. This sample is consistent with the types of projectiles found during the 1992 season.

Figure 9. Selected Paleoindian points from 40DV247: Clovis.

Figure 10. Selected Archaic points from 40DV247: (from left to right) Kirk Comer-Notched; Big Sandy; Big Sandy Auriculate; Ledbetter.

Figure 11. Selected Woodland points from 40DV247: (from left to right) Adena Narrow-Stemmed; Turkey-tail; Copena; Copena.

Figure 12. Selected Madison points from 40DV247.

Table 4. Provenience of Identified Projectile Points Recovered from the 1992 Excavations of 40DV247.

Provenience	Type(s)
General Surface	Benton (8); Big Sandy (7); Madison (5); Copena (5); Mud Creek (5); Mulberry Creek (4); Swan Lake (3); Mcintire (3); Ledbetter (3); Kirk Corner- Notched (2); Wade (2); Clovis (2); Little Bear Creek (2); Morrow Mountain; Motley; Pickwick; Kays; Jacks Reef Corner-Notched; Cotaco Creek; White Springs; Beaver Lake; and Cumberland
Structrure Surface	Copena (4); Madison (2); Kays (2); Little Bear Creek (2); Hamilton; Jack1 s Reef Corner-Notched; Pickwick; and Benton
Test Unit 4, Lvl 1	Kays
Test Unit 5, Lvl 1	Madison
Test Unit 7, Lvl 1	Madison (2)
Test Unit 8, Lvl 1	Little Bear Creek; Madison
Test Unit 9, Lvl 2	Turkey-tail
Test Unit 10, Lvl 2a	Mcintire
Test Unit 12, Lvl 1	Big Sandy Auriculate
Feature 20	Adena Narrow Stemmed; Nodena

Knives (*n*=3)

Two of these artifacts comprise fragments of well-crafted, lanceolate, bifacially worked tools with bifacial microflaking along non-sinuous lateral edges. A third specimen assigned to this category consists of a fragment which displays only one bifacially worked lateral edge. The opposite lateral edge of this knife has been ground and exhibits some polish, probably due to hafting techniques.

Ground Stone Artifacts

Celt (*n*=1)

A small bit fragment of Dover chert found in Test Unit 5, Level 1 was the only celt identified from the site area. The bit edge is biconvex and highly polished. Several flake scars visible on each side of the bit have been smoothed over.

Celt/Hoe Rejuvenation Flakes (*n*=2)

One small flake of greenstone from Feature 20 has a polished ventral surface and probably represents a celt rejuvenation flake. No other artifacts of greenstone were recovered from the site area. A second rejuvenation flake, made of Fort Payne chert, was recovered from the Mississippian structure area.

Discoidals (*n*=2, Figure 13)

Both of these artifacts were recovered from Feature 20. One consists of a small, circular disk fragment of burned sandstone that measures (at least) 43.8 mm in diameter and 12.3 mm thick. This object represents roughly one-half of the original artifact and weighs 13.8 g.

A second disk fragment of cannel coal measures 31.8 mm in diameter, at least 10.5 mm thick, and weighs 13.7 g. An unknown portion of this circular artifact has exfoliated from one side.

Figure 13. Discoidals from 40DV247.

Hammerstones (*n*=5)

This category is comprised of round to oval, medium-size cobbles and cobble fragments with extensively crushed and battered lateral edges. One complete specimen from Feature 20 is made of quartzite, measures 74.4 mm in diameter, and weighs 420.1 g. A second quartzite artifact from Feature 20 consists of a small cobble fragment with a battered lateral edge. Still another hammerstone fragment from Feature 20 was made from a small chert cobble (measuring at least 49.7 mm long) that has considerable crushing along a bifacially-flaked lateral edge.

The fourth specimen assigned to this category is a complete chert cobble that measures 60.7 mm in diameter and weighs 216.5 g. This artifact from Test Unit 2, Level 4 does not display any flake scars like those attributed to the previously described chert hammerstone. A fifth cobble fragment (chert) with crushed lateral edges was recovered from Test Unit 10, Level 1.

Nutting Stones (*n*=5)

All but one of the nutting stones were recovered from disturbed contexts away from the Mississippian structure area. Each artifact was manufactured from sandstone cobbles of variable size and shape, and is assumed to have been used in processing nuts, berries, and other food items.

The first specimen consists of a large, roughly triangular cobble with a single circular depression (31.5 mm in diameter) in the center of one flat surface. This artifact measures 160 mm long, 143.6 mm wide, 84.5 mm thick, and weighs 2.7 kg.

A second nutting stone, recovered from Feature 17 near the structure, exhibits an oval to squarish shape with single circular depressions (26.1 and 30.8 mm in diameter, respectively) on opposing flat surfaces. This cobble, although not quite as large as the first artifact, measures 125.2 mm long, 118.1 mm wide, 73.6 mm thick, and weighs 1.8 kg.

Another artifact was recovered from Backhoe Trench 6 and displays a rectangular form with single circular depressions on three adjacent flat surfaces. These depressions range from 16.2 mm to 30.8 mm in diameter. This nutting stone measures 104.9 mm long, 74.1 mm wide, 73.9 mm thick, and weighs 1.1 kg.

A fourth artifact consists of a relatively small, squarish fragment with single circular depressions (27.4 mm and 29.3 mm in diameter, respectively) on opposing surfaces. This fragment, recovered from Backhoe Trench 10, measures 79.9 mm long, 53.1 mm wide, 48.5 mm thick, and weighs 332.0 g.

The fifth item is an oval fragment which has been at least lightly ground on all visible surfaces. A circular depression (21.1 mm in diameter) is visible on one flat surface. A second depression may exist on the opposing flat surface, but the fragmented nature of this artifact prevents an accurate determination. This nutting stone fragment measures 89.3 mm long, 66.6 mm wide, 45.5 mm thick, and weighs 310 g.

Mano (*n*=1)

This fragmented specimen of sandstone from Feature 20 displays a semi-circular profile and probable oval to rectangular plan view. One heavily ground flat surface is apparent, although the entire artifact has been ground to some extent.

Metate (*n*=1)

This large, circular fragment of sandstone, recovered from the site surface near the Mississippian structure area, has one relatively flat, heavily ground surface. The opposing flat surface has not been ground, but does exhibit two rather deep circular depressions (measure 22.0 mm in diameter) that may have been used in a manner similar to nutting stones. This metate fragment measures 165 mm long, 203.5 mm wide, 85.1 mm thick, and weighs 4.2 kg.

Abraders (*n*=5)

Two abrader fragments from Feature 20 comprise small, tabular artifacts which display multiple linear grooves along one or more surfaces. Grooves from these particular items range !rom quite small and V-shaped (1.8 mm wide) to large and U-shaped (10.2 mm wide). Three additional abraders found from surface and plowzone contexts also exhibit multiple linear grooves along one or more surfaces. These grooves are V-shaped in profile and range from 2.1 mm to 6.7 mm in width.

Unidentified Incised (*n*=2)

Included in this category is a large, somewhat oval (stream rolled) pebble of chert that has a shallow groove along the center of the specimen's long axis. This groove is 8.8 mm wide and is continuous across the entire artifact. Suggested functions for this artifact range from a net sinker to possibly a gaming piece.

Another specimen is an oddly-shaped artifact of sandstone recovered from the plowzone near the Mississippian structure area. This rather small specimen was ground into a tabular, nearly circular form except for one side which is flat. The artifact roughly resembles a yo-yo in appearance as a single shallow, narrow, and uneven groove was cut along the (circular) lateral edge of the artifact. No groove or other marks are present along the flat lateral surface. This artifact measures 41.4 mm long (circular edge to circular edge), 35.1 mm wide (flat edge to circular edge), 20.8 mm thick, and weighs 38.6 g. Suggested uses for this artifact include a net sinker, or possibly some type of crude bannerstone.

Lithic Resources

The overwhelming majority of artifacts were manufactured from locally available cherts, including primarily Fort Payne. This generally fine grain, opaque resource exhibits a wide range of textures and colors (Amick 1987:40–44). Specimens with variable combinations of blue, gray and tan were very common at 40DV247. Although Fort Payne is abundant within the adjacent Highland Rim, this material is also available from remnant hills and stream gravel bars throughout the Central Basin (Amick 1987:44). As with most sites within the study area, stream beds appear to be a popular source for this knappable material based upon smooth, waterworn cortex visible on numerous core fragments and flakes from Brandywine Pointe.

All nutting stones and abraders, as well as the metate and mano, were made of sandstone which was probably obtained from local remnant hilltops or stream beds. Although not common throughout the study area, sandstone outcrops have been identified in the Nashville area (Smith and Fowler 1993). Quartzite cobbles used for hammerstones were likely gathered from these hilltop or stream locales as well.

Two non-local stone resources, Dover chert and greenstone, were also identified in the Brandywine Pointe collection. Dover chert is a homogeneous, non-lustrous, gray to brown colored material with mottled black and gray inclusions. This material has traditionally been associated with Stewart County, Tennessee roughly 90 km northwest of the study area. This resource is commonly found on other study area Mississippian sites in the form of hoes, celts, and hoe/celt rejuvenation flakes (Jolley 1980; Kline 1984; K.E. Smith 1992, 1993; Smith et al. 1993). Fourteen specimens of Dover were recovered from the site excavations, comprising one celt, one thin biface, and twelve decortication flakes. Six of the flakes were associated with Mississippian period features, with the remainder from disturbed contexts.

A second non-local resource from the site is represented in a single celt rejuvenation flake of greenstone from Feature 20 (midden remnant). This hard, dark green material has been reported at a number of other sites within the Middle Cumberland drainage (Jones 1876; Smith

and Moore 1996[6]; K.E. Smith 1992; Smith et al. 1993). Identification of greenstone sources within Tennessee has yet to be undertaken as an organized research effort. However, a large outcrop of greenstone has been found in Polk County, Tennessee along the Hiwassee River some 160 km southeast of Brandywine Pointe.

Ceramics

Despite the restrictions imposed on excavations at Brandywine Pointe, a relatively large sample of ceramics was recovered (*n*=1,149; Table 5). The majority of the assemblage was retrieved from the vicinity of Structure 1, and presumably associated with activities centering on this structure. In general, the total assemblage is representative of a lengthy but ephemeral use of the site area. Although our understanding of the Woodland ceramic assemblages of the region is relatively limited (cf. Moore, Norton, and Smith 1992), the types represented would appear to correspond with information provided by lithic remains--the site was used by peoples producing ceramics from the Early, Middle, and (possibly) Late Woodland periods through at least the early or middle phases of Mississippian occupation[7] in the Central Basin.

Ceramics were initially sorted on the basis of temper type and surface treatment. The overwhelming majority of sherds were tempered with moderate amounts of coarsely crushed mussel shell, with occasional minor admixtures of what appears to be crushed aquatic gastropods. In addition to this primary temper, a preponderance of sherds included other secondary agents that may represent either deliberate or accidental inclusions. Inclusions with crushed shell included rounded grit particles, sand, and limestone in varying percentages. Grit inclusions ranged in size and density, but of interest was the fact that the relative particle size varied with the thickness of vessel walls (i.e. thick walled vessels often included both small and large grit particles, while thin walled vessels included only smaller grit particles). The generalized patterns suggest some processing of clay or selectivity in source materials occurred.

Following the separation of sherds into temper and paste categories, they were further subdivided by surface treatment. A variety of surface treatments was noted, including cordmarking, fabric impression, incision, and singular examples of positive painting, punctation, and applique.

After tabulation of the sherds by temper and surface treatment, cross-mending of sherds within feature contexts was undertaken. Analysis of rim sherds and selected body sherds was undertaken to establish a minimum number of vessels and vessel forms present in the assemblage. Although extrapolations of vessel form could have extended to additional rim sherds in the sample, all rim sherds smaller than one-inch square were excluded from consideration. As a result of the rim sherd analysis, a minimum of nineteen vessels were identified, including jar, bowl, bottle, and pan forms. Vessel forms are described in detail in following sections.

[6] Cited as a 1993 manuscript in the original report.
[7] Regional Periods I–III (Moore and Smith 2009).

Table 5. Provenience and Temper Types of Ceramics Recovered from the Brandywine Pointe Site.

	PLAIN											CORDMARKED							FABRIC IMPRESS				-INCISED-			PAINT	PUNCT/ APPLI	
Proven	FSh	Sh	Sh/ G	Sh/ S	Sh/ L	G	S	L	Cl	C	Q	Sh	Sh/ G	Q	C/ Q	G	S	L	Sh	Sh/ G	G	S	Sh	Sh/ G	L	Sh/ G	FSh	TOTAL
Gen Surface*	-	35	65	3	1	-	-	8	-	-	10	-	-	17d	-	-	-	2	-	-	-	-	-	-	-	-	-	141
ST 8	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
TU 1, L2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
TU 2, L1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-	-	-	-	-	3
TU 2, L2	-	3	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
TU 2, L3	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	3
TU 2, L4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
TU 4, L2	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
TU 5, L1	-	11	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	13
TU 5, L2	-	-	29	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	33
TU 7, L1	7	17	24	-	-	-	-	-	-	-	-	-	7	3	-	-	-	-	-	-	-	-	-	-	-	-	-	58
TU 7, L2	5	-	80	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	3	-	-	-	-	-	1	-	91
TU 7, L3	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
TU 8, L1	8	-	19	-	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	32
TU 8, L2	-	52	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	57
TU 8, L3	-	-	2	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	3
TU 9. L1	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
TU 9, L2	-	-	28	-	-	3	-	-	-	-	1	-	1	-	-	-	-	-	-	2	-	-	-	-	-	-	-	35
TU 10, L1	-	-	60	-	-	-	-	3	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	64
TU 10, L2a	3	10	-	9	-	-	-	2	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	26
TU 10, L2b	1	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
TU 10, L3	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
TU 11, L1	-	9	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	10
TU 11, L2b	3	-	8	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	14
TU 12, L1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
TU 12, L2	-	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
TU 12, L3	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
TU 14, L1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Fea 4	-	-	14	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
Fea 7	-	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Fea 10	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Fea 12	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Fea 14	11	14	13	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39
Fea 15	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Fea 17	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2

Table 5 (continued).

	PLAIN											CORDMARKED							FABRIC IMPRESS				INCISED			PAINT	PUNCT/ APPLI	
Proven	FSh	Sh	Sh/ G	Sh/ S	Sh/ L	G	S	L	Cl	C	Q	Sh	Sh/ G	Q	C/ Q	G	S	L	Sh	Sh/ G	G	S	Sh	Sh/ G	L	Sh/ G	FSh	TOTAL
Fea 19	1	-	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	26
Fea 20	7	113	96	3	-	-	-	-	-	-	2	-	-	1	-	-	-	-	18	7	-	-	-	-	-	-	1	248
Fea 21	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Fea 27	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Fea 28	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Fea 31	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Structure																												
Gen Surface	2	20	-	21	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	48
Fea 38	-	-	-	-	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Fea 52	-	2	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Fea 53	-	1	106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	108
Fea 54	-	2	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Fea 65	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Fea 72	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Fea 79	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Fea 93	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
TOTAL	50	308	608	41	1	14	3	16	1	1	14	1	9	31	1	1	1	7	20	16	1	2	1	1	1	1	1	1149
PERCENT	4	27	53	4	<1	1	<1	1	<1	<1	1	<1	<1	3	<1	<1	<1	<1	1	1	<1	<1	<1	<1	<1	<1	<1	

FSh=Fine Sand
Sh=Sand
Sh/G=Shell/Grit
Sh/S=Shell/Sand
Sh/L=Shell/Limestone
G=Grit
S=Sand
L=Limestone
Cl=Clay
C=Chert
Q=Quartz
C/Q=Chert/Quartz
*=includes 1987 and 1992 investigations
d=one specimen was cord wrapped dowel impressed

Jars (*n*=10)

Similar to most late prehistoric assemblages, jars are represented in large numbers in the Brandywine Pointe assemblage (Figure 14a–j). Despite the lack of large cross-mended portions of vessels, the majority of jars can probably be described as globular or subglobular vessels with rounded bases (no body sherds exhibiting flattening or dimpling were identified in the sample). Rim sherds suggest that Dowd phase[8] jars were predominantly slightly incurvate at the rim, with thickened rounded or slightly flattened lips. A minimal sample of jar forms exhibited direct or nearly direct rims, with associated flattened lips (Figure 14b and j).

Manipulatory appendages were well represented in the sample (*n*=7), with a preponderance of double lugs (*n*=5)(Figure 14). Although none of the appendages were mended with substantial portions of associated jars, data from other sites within the Central Basin would suggest that these appendages represent sets of opposing double lugs. A fragmentary flattened loop handle was also represented in the sample.

The majority of jars consisted of a relatively coarse paste with varying mixtures of coarsely crushed mussel shell and rounded grit particles. Although rounded grit and clay particles have been identified in other early Mississippian assemblages from the Central Basin (cf. Spears et al. 2008[9]), the Brandywine Pointe sample did not yield evidence for the continued use of fired clay particles as a tempering agent.

Bowls (*n*=1)

Bowls were represented by a single fine-shell tempered rim sherd (Figure 14k). Although relatively small, the curvature of the sherd suggests an excurvate wall or outslanting wall bowl generally associated Mississippian occupations during the AD 1050–1250 period (Smith 1992).

Pans (*n*=6)

Pans were represented in substantial quantities in the ceramic assemblage, including samples exhibiting rough unmodified exterior surfaces (Figure 15a, c–e) and fabric impressed surfaces (Figure 15f). A singular example of a well-made, fine-paste plain surfaced pan was also identified (Figure 15b).

Bottles (*n*=1)

Although no rim sherds of bottles were included in the sample, a large thin-walled, fine-paste body sherd tempered with finely crushed mussel shell almost certainly represents a portion of a bottle. Comparisons of the fragment to other samples from the region suggests that the sherd was probably from a large hooded or cylindrical-necked bottle.

[8] Regional Periods II–III (Moore and Smith 2009)
[9] Cited as Moore, Smith, and Spears (1993, in press) in the original report.

Unidentified Forms (*n*=1)

A single small body sherd from a vessel with an apparent applique strip (missing) and zoned punctation was identified in the sample. Based on curvature, paste, and other considerations, the sherd does not appear to have derived from any of the above-described vessels. Unfortunately, the form of the vessel could not be determined from the fragment, but the limitation of punctation to shoulder-decorated jar forms in other samples suggests a similar form. The combination of zoned punctation and applique exhibited on this vessel does not have any counterparts in other samples from the region.

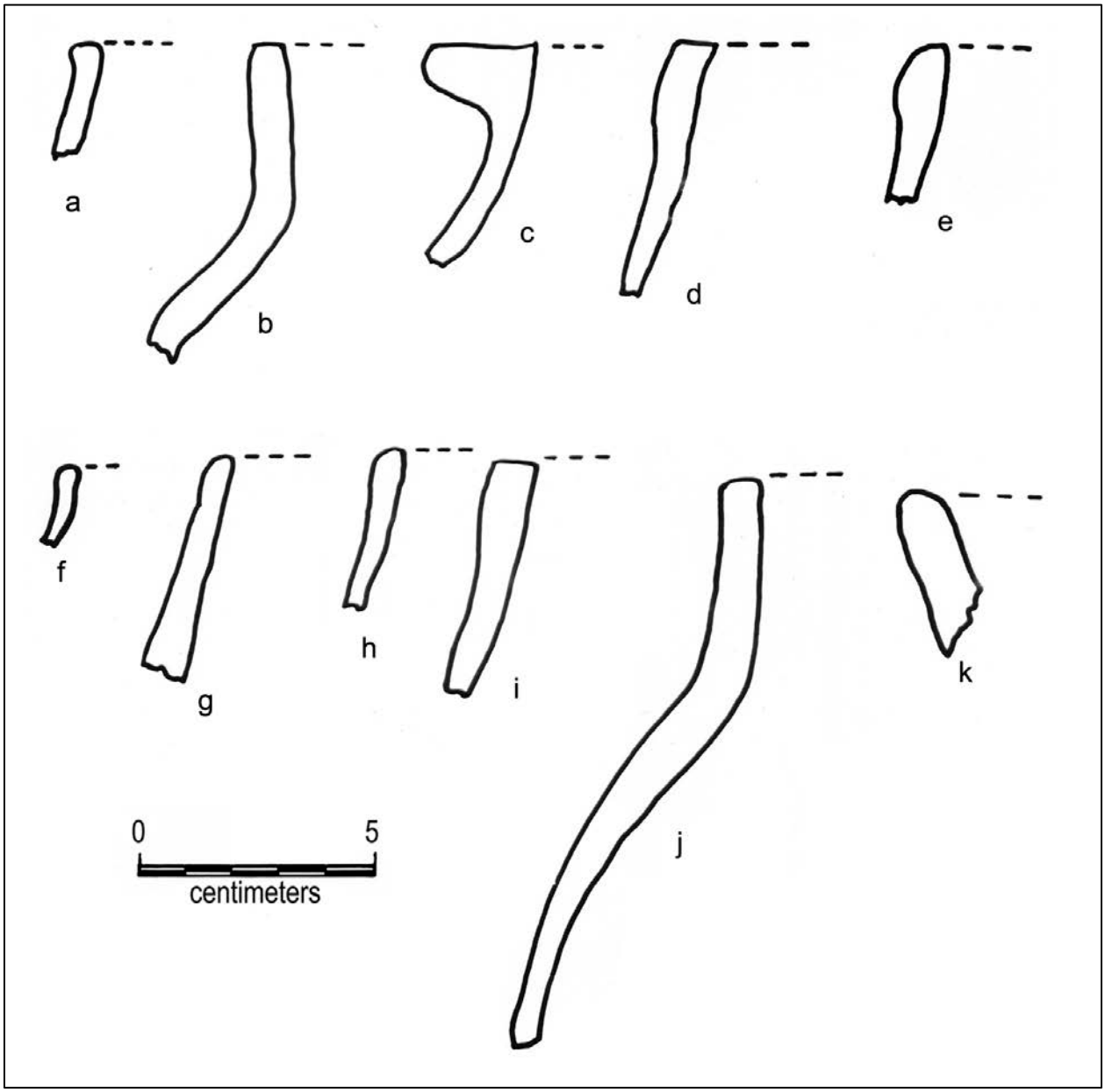

Figure 14. Rim profiles of selected ceramics from 40DV247.

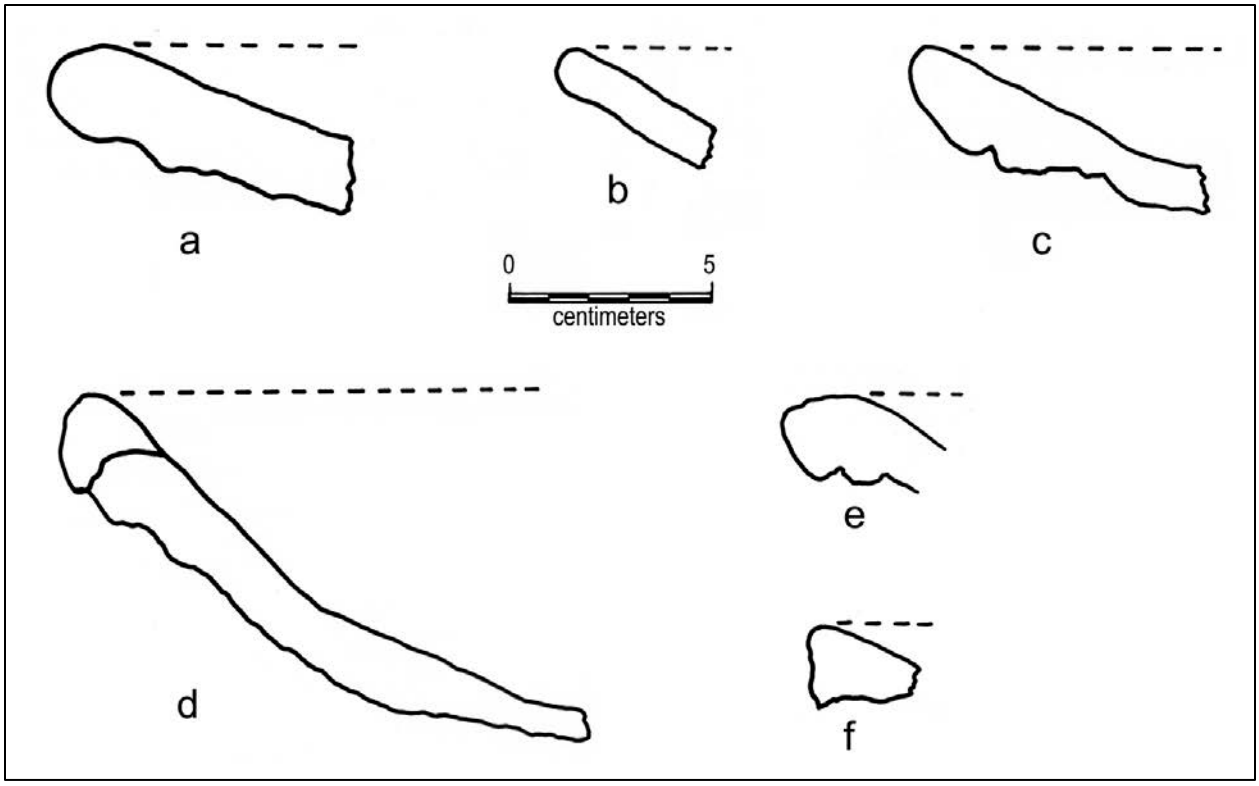

Figure 15. Rim profiles of selected ceramic pans from 40DV247.

Faunal Remains

Soils within the boundaries of 40DV247 were not very conducive to preservation of faunal remains. Few elements were found in feature contexts, and careful monitoring during mechanical stripping did not indicate substantial faunal elements in midden deposits associated with the structure.

As a result, the Brandywine Pointe faunal assemblage was limited to 55 identified elements, including eight mammal, five bird, two reptile, one amphibian, and one fish species (Table 6). A minimum of 17 individuals were defined, including human, white-tailed deer, raccoon, woodchuck, beaver, gray squirrel, turkey, mallard/black duck, and box turtle. These species are generally representative of fauna from the study area.

A single element (left maxillary incisor) of domestic pig was also identified in the faunal assemblage. This particular specimen was recovered from the plowzone and presumably relates to the historic period occupation of the site area. Other species that were identified only from disturbed, and potentially historic, contexts include raccoon and passerine bird.

Although no formal tools were recovered during the investigations, three identified specimens exhibited cut marks. Two possible turkey fragments (Feature 20) were scored and snapped, and one deer metapodial fragment (Test Unit 8, Level 3) displayed cut marks on a lateral side. In addition, an unidentified large mammal fragment from Feature 14 had also been scored and snapped.

Floral Remains

Past excavations of Mississippian structures in the Middle Cumberland region have rarely yielded substantial botanical samples due to a mixture of poor preservation conditions and limited recovery techniques. Thus, although the current samples are not extensive in nature, they are critically important due to the relative paucity of similar materials. The Brandywine Pointe sample includes information on wood sources, along with samples of charred wild and domesticated plants (Table 7).

Wood Charcoal and Cane

Charred wood from the site includes examples of eight distinct species of tree. The site location and botanical sample indicates the likelihood that inhabitants were exploiting a bottomland forest adjacent to upland stands. Although the sample is small and may not be entirely representative, the predominance of bottomland forest species indicates that the primary focus of resource use was on the floodplain-terrace margins. Cane (*Anmdinaria gigantea*), the single large grass species represented in the sample, is common in extensive stands throughout the floodplain-terraces of the Central Basin (although upland stands overlooking floodplain-terraces have also been noted in areas with permanent seeps and springs).

Nuts

Charred nutshell was extensively represented in the sample, and was identified in all features yielding botanical remains. Hickory (*Carya* sp.) and black walnut (*Juglans nigra*) were the only two nut species represented in the sample, with hickory predominating. Comparisons of the charred wood sample with nutshell samples suggests that inhabitants may have been procuring nuts at some distance from the structure, and utilizing nearby (primarily bottomland) species for firewood.

Wild Fruits and Seeds

Wild plant foods were represented by the presence of relatively substantial quantities of persimmon and honey locust. Both of these species are generally found in bottomland environments, supporting an interpretation of a bottomland forest in the site vicinity during primary occupation of the structure.

Cultigens

Carbonized remains of maize and squash were recovered from Features 19, 52 and 54. Although cucurbit remains were fragmentary, their size suggests a larger fall harvest cucurbit (i.e. pumpkin) rather than a summer harvest squash (Andrea Shea, personal communication, 1993). Unfortunately, none of these features yielded sufficient wood charcoal for a standard radiocarbon determination.

Maize was best represented in the large sample from Feature 54, including three cob segments, five cob fragments, three carbonized kernels, and eighteen cupules (Table 8). The maize consisted of eight, ten, and twelve-row specimens, with the more reliable samples of cob segments consisting exclusively of ten-row specimens. The maize recovered from Feature 54 was probably deposited during a single event, and thus cannot be considered fully

representative of the varieties of maize grown in the region. Other samples from the Basin suggest a greater genetic diversity, but consistently exhibit a predominance of ten-row specimens (cf. K.E. Smith 1992:Table 8). Although the variability in Central Basin maize cannot be fully explained with available samples, interpretations of Fort Ancient maize samples suggest "a mixture of Eastern Eight Row, an early maturing variety found farther north and adapted to shorter growing seasons, and a more ancient, North American Pop, with twelve to fourteen rows of kernels" (Rossen 1992:203). This pattern would appear to be supported in the Central Basin samples as well, although there are hints of increasing genetic diversity after about AD 1250.

Table 6. Identifiable Vertebrate Fauna from the 1992 Excavations at 40DV247.

Species	Fe 14	Fe 19	Fe 20	Fe 38a	Fe 53	Fe 54	Fe 68	TU7 Lv1	TU7 Lv2	TU8 Lv2	TU8 Lv3	TU10 Lv1	TU11 Lv3	TOTAL	MNI
MAMMALS															
Homo sapiens, Human	-	-	-	-	-	-	1	-	-	-	-	-	-	1	1
Sus scrofa, Domestic pig	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1
Odocoileus virginianus, White-tailed deer	2	1	9	1	1	-	-	-	1	1	1	1	1	20	1
Procyon lotor, Raccoon	-	-	-	-	-	-	-	1	-	-	-	-	-	1	1
Marmota monax, Woodchuck	-	-	1	-	-	-	-	-	-	-	-	-	-	1	1
Castor canadensis, Beaver	-	-	1	-	-	-	-	-	-	-	-	-	-	1	1
Sciurus carolinensis, Gray squirrel	-	-	-	-	-	2	-	1	1	-	-	-	-	4	1
Unidentified rodent	-	-	-	-	-	1	-	-	1	-	-	-	-	2	1
BIRDS															
Passerine, Perching birds	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1
Meleagris gallopavo, Wild turkey	-	-	3	-	-	-	-	-	-	-	-	1	-	4	1
Wild turkey?	-	-	2	-	-	-	-	-	-	-	-	-	-	2	1
Anas sp., Mallard/Black Duck	-	-	1	-	-	-	-	-	-	-	-	-	-	1	1
Unidentified bird	-	-	1	-	-	1	-	1	-	-	-	-	-	3	1
REPTILES															
Terrapene carolina, Box turtle	-	-	5	-	-	-	-	-	-	-	-	-	-	5	1
Unidentified turtle	1	-	-	-	-	1	-	1	1	-	-	1	-	5	1
AMPHIBIANS															
Bufo sp., Spade footed toad	-	-	-	-	1*	-	-	-	-	-	-	-	-	1*	1
FISHES															
Unidentified fish	-	-	-	-	-	1	-	-	1	-	-	-	-	2	1

* partial remains of one individual.

Table 7. Identified Floral Species from the 1992 Excavations at 40DV247.

Species	Fea 4	Fea 14	Fea 19	Fea 52	Fea 54	Fea 55	Fea 80	TU 7 Lv 2
WOOD/CANE CHARCOAL (29.0g)								
Maclura pomifera, Osage Orange	-	-	-	10f	8f	-	-	-
Juglans sp, Walnut/Butternut	-	-	-	-	3f	-	-	-
Carya sp, Hickory	-	-	-	7f	1f	-	-	-
Fraxinus sp, Ash	-	-	-	-	2f	-	-	-
Quercus sp, Oak	-	-	-	-	1f	-	-	-
Prunus sp, Cherry	-	2f	-	2f	-	-	-	-
Arundinaria sp, Cane	-	-	-	8f	15f	-	-	-
Gleditsia triacanthos, Honey Locust	-	-	-	3f	-	-	-	-
NUTSHELL*								
Carya sp, Hickory	2f 0.2g	55f 2.2g	4f 0.8g	15f 8.0g	22f 0.4g	1f 0.2g	5f 0.3g	1f 0.2g
Juglans nigra, Black Walnut	-	-	2f 0.8g	-	11f 0.2g	-	-	-
SEEDS/FRUITS								
Diospyros virginiana, Persimmon	-	-	9w 0.9g	-	23w 2.8g	-	-	-
Gleditsia triacanthos, Honey Locust	-	-	1w 0.1g	1 0.1g	-	-	-	-
Cucurbita sp, Cucurbit rind	-	-	-	-	4f 0.1g	-	-	-
Cucurbita sp, Curcurbit seed	-	-	-	-	1f <0.1g	-	-	-
MAIZE								
cob segments	-	-	-	-	3	-	-	-
cob fragments	-	-	-	4	5	-	-	-
kernels	-	-	10f	-	3w	-	-	-
cupules	-	-	-	-	18	-	-	-

w=whole
f=fragments
g=grams
* does not include 5.0g combined sample for radiocarbon date

Table 8. Measurements of Analyzed Maize from Structure Interior Support Posts, Features 52 and 54*.

Provenience	Sample Type	Cupule Width	Cupule Length	Glume Width	Wing Width	Est Row Number	Actual Row Number	Kernel Width	Kernel Length	Kernel Thick
Feature 52	Cob fragment	9.0	2.0	–	1.0	8	–	–	–	–
		9.0	2.5	–	1.0	8	–	–	–	–
	Cob fragment	8.5	2.5	–	1.0	8	–	–	–	–
		8.0	2.5	–	1.0	8	–	–	–	–
	Cob fragment	8.5	2.5	–	1.0	10	–	–	–	–
		8.5	3.0	–	1.0	10	–	–	–	–
	Cob fragment	8.0	2.5	–	1.0	10	–	–	–	–
		8.0	2.0	–	1.0	10	–	–	–	–
Feature 54	Cob segment	6.5	2.5	–	1.0	–	10	–	–	–
		8.5	3.0	–	1.0	–	10	–	–	–
		9.0	3.0	–	1.0	–	10	–	–	–
		7.5	3.0	–	1.0	–	10	–	–	–
		8.5	2.5	–	1.0	–	10	–	–	–
	Cob segment	7.0	2.5	–	1.0	–	10	–	–	–
		8.5	2.0	–	1.0	–	10	–	–	–
		7.5	3.0	–	1.0	–	10	–	–	–
	Cob segment	7.5	2.5	–	1.0	–	10	–	–	–
		7.0	2.5	–	1.0	–	10	–	–	–
		7.5	2.5	–	1.0	–	10	–	–	–
		8.0	2.5	–	1.0	–	10	–	–	–
		6.5	2.5	–	1.0	–	10	–	–	–
	Cob fragment	7.0	2.0	–	1.0	10	–	–	–	–
		7.0	2.0	–	1.0	10	–	–	–	–
	Cob fragment	7.0	2.5	–	1.0	10	–	–	–	–
		6.8	2.0	–	0.5	10	–	–	–	–
		6.5	2.0	–	0.5	10	–	–	–	–
	Cob fragment	7.0	1.5	–	1.0	10	–	–	–	–
		7.0	2.0	–	1.0	10	–	–	–	–
		6.5	2.0	–	1.0	10	–	–	–	–
	Cob fragment	9.0	2.0	4.0	1.5	8	–	–	–	–
		8.5	2.0	4.0	1.5	8	–	–	–	–
	Cob fragment	9.0	2.0	–	1.5	8	–	–	–	–
		9.0	2.0	–	1.5	8	–	–	–	–

Table 8 (continued).

Provenience	Sample Type	Cupule Width	Cupule Length	Glume Width	Wing Width	Est Row Number	Actual Row Number	Kernel Width	Kernel Length	Kernel Thick
		9.0	2.0	-	1.5	8	-	-	-	-
	Cupule	5.5	2.5	-	1.5	12	-	-	-	-
	Cupule	5.0	1.0	-	1.5	12	-	-	-	-
	Cupule	6.0	1.5	-	0.5	12	-	-	-	-
	Cupule	6.0	1.5	-	1.5	10	-	-	-	-
	Cupule	9.0	1.5	-	-	10	-	-	-	-
	Cupule	8.5	1.0	4.0	-	10	-	-	-	-
	Cupule	6.2	1.0	-	2.0	10	-	-	-	-
	Cupule	7.0	1.5	-	1.5	10	-	-	-	-
	Cupule	8.0	1.5	-	1.5	10	-	-	-	-
	Cupule	9.0	1.0	5.0	2.0	8	-	-	-	-
	Cupule	9.0	1.0	4.5	1.0	8	-	-	-	-
	Cupule	8.5	1.5	4.5	1.0	8	-	-	-	-
	Cupule	9.0	1.5	5.0	2.0	8	-	-	-	-
	Cupule	9.5	1.5	5.0	1.0	8	-	-	-	-
	Cupule	7.5	1.5	-	1.5	8	-	-	-	-
	Cupule	8.5	1.0	-	1.0	8	-	-	-	-
	Cupule	7.0	1.0	-	1.5	8	-	-	-	-
	Cupule	9.0	1.0	-	1.5	8	-	-	-	-
	Kernel	-	-	-	-	-	-	9.5	7.0	5.0
	Kernel	-	-	-	-	-	-	9.0	5.5	6.0
	Kernel	-	-	-	-	-	-	8.0	6.5	4.5
TOTAL		404.5	103.5	36.0	58.0	360.0	130.0	26.5	19.0	15.5
RANGE		5.5-9.5	1-3	4-5	0.5-2	8-12	8-10	8-9.5	5.5-7	4.5-6
MEAN		7.8	2.0	4.5	1.2	9.2	10.0	8.8	6.3	5.2
STANDARD DEVIATION		1.1	0.6	0.4	0.3	1.3	0	0.6	0.6	0.6

% 8-ROWED=34.62 %10-ROWED=59.62 %12-ROWED=5.77

* measurements in mm.

SITE OCCUPATIONS PRIOR TO THE MISSISSIPPIAN PERIOD

Numerous temporally sensitive items were identified within the 40DV247 artifact assemblage, although most (aside from those found within the Mississippian structure and associated refuse pits) comprise projectile points recovered from the surface or other disturbed contexts. Despite the lack of context, such artifacts provide general but important clues regarding prehistoric knowledge and use of the site area. For example, the recovery of four Paleoindian projectile points (two Clovis, one Cumberland, and one Beaver Lake) attest to an initial site occupation by very early prehistoric people (see Figure 9). Ongoing research has shown that the Central Basin of middle Tennessee was frequented by Clovis and other early groups (Broster 1989; Broster and Norton 1990; Broster et al. 1991; Broster and Barker 1992). The generic label of "hunting camp" seems appropriate for 40DV247 during this period. Two spurred end scrapers reportedly collected from Brandywine Pointe by a local collector suggests that early site residents were conducting other activities as well.

An Early Archaic presence at the site is suggested by several Kirk Comer-Notched and Big Sandy Auriculate points (see Figure 10). No additional tools or artifacts could be confidently assigned to this period. Site use during the Early Archaic, like the earlier Paleoindian period, appears to be rather ephemeral based upon the limited information available.

An increase in the number of Middle Archaic (*n*=19) and Late Archaic (*n*=20) points was observed in the Brandywine Pointe sample (see Figure 10). Benton, Big Sandy, Morrow Mountain, and White Springs comprise the identified Middle Archaic points. Late Archaic points from the site include Little Bear Creek, Kays, Mulberry Creek, Ledbetter, Pickwick, and Cotaco Creek. Obviously this increase suggests that the frequency of site use and/or the number of site residents grew during these periods. Nutting stones from the site area may be associated with these periods, but could also belong to later Woodland and Mississippian residents. In addition, a number of end scrapers made from reworked straight to slightly expanded stemmed projectile points are probably associated with the Late Archaic period. Based upon the limited information available, the Middle to Late Archaic occupation of 40DV247 is suggested to have been seasonally oriented but more extensive than previous periods.

Increased site activity continued through the Early Woodland and Middle Woodland periods (see Figure 11). A variety of projectile points (*n*=17) associated with Early Woodland residents were recovered, including Mcintire, Swan Lake, Wade, Adena Narrow Stemmed, Motley, and Turkey-tail. Copena and Mud Creek comprise the identified Middle Woodland (*n*=14) points. Woodland period ceramics were also recovered from the site area. Plain and cordmarked wares tempered with limestone, quartz, chert, grit, and sand represent less than 10% of the pottery sample.

A single Hamilton projectile point constitutes the only artifact perhaps indicative of a Late Woodland occupation at Brandywine Pointe. However, the possibility that this point may be associated with the Mississippian component cannot be overlooked. The apparent decline in use of the site area by Late Woodland populations favorably compares with current

interpretations of settlement patterning in the Middle Cumberland region. Recent studies at several area multicomponent sites have documented Early and/or Middle Woodland components with little or no evidence for Late Woodland occupations (Moore, Norton, Smith 1992; Moore, Breitburg et al. 1992). Unfortunately, the entire Woodland sequence for this area is poorly understood, and no explanatory framework for the apparent population change is available. Additional research is needed to gain a more comprehensive understanding of Woodland settlement and subsistence patterns before meaningful discussions of temporal population shifts can be initiated.

THE MISSISSIPPIAN OCCUPATION OF BRANDYWINE POINTE

In terms of artifact assemblages, ceramics provide the greatest amount of data for comparison and interpretation of Mississippian occupations. Although the Mississippian ceramics from Brandywine Pointe are crudely made in comparison to many of those recovered from (theoretically) contemporaneous larger villages and mound centers, this crudity may reflect the basic utilitarian nature of the assemblage rather than chronologically distinct assemblages. The Brandywine Pointe assemblage is characterized by primarily plain surfaced vessels, with only minor quantities of special surface treatments.

Of the ninety-four sherds exhibiting special surface treatments, forty-four (47% of the non-plainwares, 3.8 percent of total ceramic assemblage) appear to be related to ephemeral pre-Mississippian occupations of the site (exclusively quartz and chert tempered sherds). The remaining fifty sherds (53%) represent cordmarked jars, fabric impressed pans, and singular examples of incised, painted, and punctated vessels. A small sample (*n*=10) of shell or mixed temper ceramics with exterior cordmarking are present. The near-total absence of cordmarking or smoothed-over cordmarking at sites postdating AD 1150 is strongly supportive of a steady decrease in this technique of ceramic treatment and the placement of the Brandywine Pointe occupation between AD 1050 and 1250.

Since decorated wares almost assuredly represent vessels designed for some form of public display, their relative absence at an isolated farmstead is not unexpected. Still, the assemblage appears to contain larger percentages of decorated wares than earlier assemblages (Smith and Norton 1993; Spears et al. 2008[10]). At 40DV247, fine shell-tempered sherds comparable to Bell Plain almost certainly represent thin-walled water-storage bottles.

The strong representation of pans at Brandywine Pointe stands in stark contrast to past interpretations of these vessels as salt processing implements, since no salt or sulphur springs are located within any reasonable radius of the site. Although pan forms may have served such a function at sites located at saline springs (i.e. Castalian Springs, Sulphur Dell/French Lick), such forms are also well represented in virtually every known domestic assemblage from the Central Basin. In common households such as 40DV247, these vessels were probably used for the purposes of communal food storage and/or serving.

Analyses of Mississippian lithic assemblages from Middle Cumberland drainage sites by early researchers were hampered from examining temporally sensitive changes due to the absence of a sizeable database. Recent research, new radiocarbon dates, and a review of past work has begun to distinguish possible artifactual time markers. For example, unnotched, triangular Madison points are generally assumed to represent the Mississippian occupation of the Middle Cumberland region. However, the earliest Mississippian point type may instead be Hamilton arrow points. These points are often associated with Late Woodland occupations, and were found in sizeable numbers at the early Mississippian site of Mound Bottom (K.E. Smith

[10] Cited as Moore, Smith, and Spears (1993, in press) in the original report.

1992:153). In addition, serrated triangular points (i.e. Sand Mountain) may represent a variation of the Madison style, and seem to comprise a sizeable percentage of the point sample when present (Ferguson 1972; Smith, Fowler, Moore 1993)

Madison and Nodena points comprise the Mississippian point sample from Brandywine Pointe (except for the possible Mississippian Hamilton point). Basic measurements of these specimens length, width, and thickness were prepared and have been presented in Table 9. Unfortunately, current attempts to compare the 40DV247 sample with other Mississippian site collections were severely hampered by the lack of complete specimens (see Figure 12). This comparative approach should not yet be discarded, however, as future research may well distinguish possible temporal shifts in point size ratios. Aside from the projectile points, the Brandywine Pointe lithic sample is similar to other recently analyzed Mississippian assemblages (Smith and Moore 1996, 2012[11]; Smith et al. 1993; Spears et al. 2008[12]).

The 40DV247 lithic sample does provide additional clues concerning daily activities of the Mississippian structure residents. Hammerstones, core fragments, and flake debitage from the structure area indicate that the manufacture/maintenance of chipped stone tools was an important site endeavor. Although simplistic, this observation is nonetheless important as site occupants were making triangular arrow points, knives, scrapers, and drills for use in basic subsistence and domestic activities. Identified large and small fauna comprise a minimal list of resources consumed and processed by the site inhabitants.

Despite the presence of such cultigens as maize and squash within the structure, no chipped stone hoes or other digging tools were recovered from the site area. This was a bit surprising as the structure residents were likely farmers. Probably these important tools, if present, were taken with the occupants when the structure was (apparently) abandoned. Several flakes with polished dorsal surfaces comprise tentative evidence for the rejuvenation of implements used for agriculture. However, these rejuvenation flakes may possibly result from woodworking actions based on the presence of a highly polished Dover celt. No complete celts made from locally-derived resources were recovered from the site.

Table 9. Measurements of Mississippian Projectile Points from 40DV247.

Provenience	Point Type	Max Length (mm)	Max Width (mm)	Max Thick (mm)
General surface*	Madison	24.6**	16.9**	3.8
General surface*	Madison	21.4**	17.8	3.7
General surface	Madison	15.2**	16.5	3.5
General surface	Madison	6.8**	20.5	4.3
General surface	Madison	18.2**	18.7	3.4
General surface	Madison	21.4**	15.1	4.8
General surface	Madison	14.5**	20 .4**	3.6
General surface	Madison	29.2**	12.8	3.3
Structure area, surface	Madison	30 .4**	18.6	4.1
Structure area, surface	Madison	19.8**	13.5	3.8
Test Unit 6 Level 1	Madison	11.6**	15.9**	3.4
Test Unit 7 Level 1	Madison	34.6	14.5	5.0
Test Unit 7 Level 1	Madison	18.9**	17.0	5.3
Test Unit 8 Level 1	Madison	12.8**	16.0	3.9
Feature 20 (midden)	Nodena	29.2**	10.7	2.9

* recovered from 1987 investigations.
** broken.

[11] Cited as Smith, Fowler, and Moore (1993) in original report
[12] Cited as Moore, Smith, and Spears (1993, in press) in the original report.

REFERENCES CITED

Amick, Daniel S.

1987 *Lithic Raw Material Variability in the Central Duck River Basin: Reflections of Middle and Late Archaic Organizational Strategies*. Tennessee Valley Authority Publications in Anthropology No. 50 and University of Tennessee, Department of Anthropology, Report of Investigations No. 46.

Braun, Lucy

1950 *Deciduous Forests of Eastern North America*. The Blakiston Company, Philadelphia.

Broster, John B.

1989 A Preliminary Survey of Paleoindian Sites in Tennessee. *Current Research in the Pleistocene* 6:29–31.

Broster, John B. and Mark R. Norton

1990 Paleoindian Fluted Point and Site Survey in Tennessee: The 1989 Season. *Current Research in the Pleistocene* 7:5–7.

Broster, John B., David P. Johnson, and Mark R. Norton

1991 The Johnson Site: A Dated Clovis-Cumberland Occupation in Tennessee. *Current Research in the Pleistocene* 8:9–10.

Broster, John B. and Gary L. Barker

1992 Second Report of Investigations at the Johnson Site, 40DV400: The 1991 Field Season. *Tennessee Anthropologist* 17(2):120–130.

Cambron, James W. and David C. Hulse

1983 *Handbook of Alabama Archaeology: Part I, Point Types.* Alabama Archaeological Society, Huntsville.

Cole, Gloria and Caroline H. Albright

1983 Chapter 6. Summerville 1-11 Fortifications. In *Excavations in the Lubbub Creek Archaeological Locality: Volume I of Prehistoric Agricultural Community in West Central Alabama*. 140–196, edited by Christopher S. Peebles. Report prepared by the University of Michigan, Ann Arbor, under an agreement with the Heritage, Conservation, and Recreation , Service, Interagency Archeological Services, Atlanta, with funds supplied by the U.S. Army Corps of Engineers, Mobile District, in partial fulfillment of Contract Numbers C5861(79) and C5970(79).

Dice, Lee R.

1943 *The Biotic Provinces of North America.* University of Michigan Press, Ann Arbor.

Ferguson, Robert B.

1972 The Arnold Village Site Excavations of 1965–1966. In *The Middle Cumberland Culture*, edited by Robert B. Ferguson, pp. 1–49. Vanderbilt University Publications in Anthropology No. 3. Nashville.

Gardner, Jeffrey W.
1987 The Hunter's Hill Project: Historical and Archaeological Research at the Shute-Tumer Farm, Davidson County, Tennessee. Report prepared for the Ladies Hermitage Association, Nashville. Manuscript on file, Tennessee Division of Archaeology, Nashville.

Jolley, Robert L.
1980 An Archaeological Survey of the Lower Duck and Middle Cumberland Rivers in Middle Tennessee. Manuscript on file, Tennessee Division of Archaeology, Nashville.

Jones, Joseph
1876 *Explorations of the Aboriginal Remains of Tennessee*. Smithsonian Contributions to Knowledge No. 256. Smithsonian Institution, Washington D.C.

Justice, Noel D.
1987 *Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States.* Indiana University Press.

Kraft, Herbert. C.
1973 The Plenge Site: A Paleoindian Occupation Site in New Jersey. *Eastern States Archaeological Federation, Archaeology of Eastern North America* 1(1):56–117.

Kline, Gerald W.
1984 The Averbuch Lithic Assemblage Interpretation and Discussion. In *Averbuch: A Mississippian Manifestation in the Nashville Basin, Volume I,* edited by W.E. Klippel and W.M Bass. Report submitted to the National Park Service in accordance with the Provisions of Contract CX 5000-9-5943 between the University of Tennessee and the National Park Service.

Larson, Lewis H., Jr.
1972 Functional Consideration of Warfare in Southeast During the Mississippi Period. *American Antiquity* 37:383–392.

Miller, Robert A.
1974 *The Geologic History of Tennessee.* Tennessee Division of Geology Bulletin 74. Nashville.

Moore, Michael C.
1989 A Review of the Tennessee State Cemetery Law and its Effect upon Archaeological Data Recovery and Site Preservation. *Tennessee Anthropologist* 14(1):64–76.

1998 An Updated Review of the Tennessee State Cemetery Law and Other Statutes Regarding Prehistoric Burial Removal. *Tennessee Anthropologist* 23(1–2):58–68.

Moore, Michael C., Mark R. Norton, and Kevin E. Smith
1992 Upland Archaeology in the Cumberland River Valley: An Analysis of Limited Test Excavations at 40DV256, Davidson County, Tennessee. *Tennessee Anthropologist* 17(2):131–155.

Moore, Michael C., Emanuel Breitburg, John T. Dowd, C. Parris Stripling, and John B. Broster
1992 Archaeological Investigations at 40DV35: A Multicomponent Site in the Cumberland River Valley, Davidson County, Tennessee. *Tennessee Anthropologist* 17(1):54–78.

Norton, Mark R. and John B. Broster
1992 40HS200: The Nuckolls Extension Site. *Tennessee Anthropologist* 17(1):13–32.

Norton, Mark R. and Kevin E. Smith
2015 *The Special Needs Prison Project: Archaeological Investigations at Four Sites in Cockrill Bend, Davidson County, Tennessee.* Tennessee Department of Environment and Conservation Division of Archaeology Report of Investigations No. 17, Nashville.

Rossen, Jack
1992 Botanical Remains. In *Fort Ancient Cultural Dynamics in the Middle Ohio Valley,* pp. 189–208, edited by A. Gwynn Henderson. Monographs in World Archaeology No. 8. Prehistory Press, Madison.

Smith, Bruce D.
1992 Prehistoric Plant Husbandry in Eastern North America. In *The Origins of Agriculture in World Perspective,* pp. 101–119, edited by C.W. Cowan and P.J. Watson. Smithsonian Institution Press, Washington D.C.

Smith, Kevin E.
1992 The Middle Cumberland Region: Mississippian Archaeology in North Central Tennessee. PhD dissertation, Department of Anthropology, Vanderbilt University, Nashville.

1993 Archaeology at Old Town (40WM2): A Mississippian Mound-Village Center in Williamson County, Tennessee. *Tennessee Anthropologist* 18(1):27–44.

Smith, Kevin E. and William R. Fowler
1993 Prehistoric Archaeology of Grassmere. Manuscript on file, Tennessee Division of Archaeology, Nashville.

Smith, Kevin E. and Michael C. Moore
1994 Excavation of a Mississippian Farmstead at the Brandywine Pointe Site (40DV247), Cumberland River Valley, Tennessee. *Midcontinental Journal of Archaeology* 19(2):198–222

1996 *The Hooper Site (40DV234): A Mississippian Village in Davidson County, Tennessee*. Miscellaneous Publication No. 3. Tennessee Department of Environment and Conservation, Division of Archaeology, Nashville.

Smith, Kevin E., C. Parris Stripling, and Michael C. Moore
1993 The Brick Church Pike Business Park Site (40DV301): Salvage Excavations at a Mississippian Hamlet. *Tennessee Anthropologist* 18(2):94–116.

Smith, Samuel D.
1992 Field Notes for the West Chimney and Associated Features, Area C, Shute-Turner Farm (40DV247). Manuscript on file, Tennessee Division of Archaeology, Nashville.

Spears, W. Steven, Moore, Michael C., and Kevin E. Smith
2008 Early Mississippian Settlement of the Nashville Basin: Archaeological Excavations at the Spencer Site, 40DV191. *Tennessee Archaeology* 3(1):3–24.

Steere, Benjamin A. and Aaron Deter-Wolf
2013 Postholes and Structures. In *Fernvale (40WM51): A late Archaic Occupation along the South Harpeth River in Williamson County, Tennessee*, edited by Aaron Deter-Wolf, pp. 49–66. Tennessee Department of Environment and Conservation Division of Archaeology Research Series 19, Nashville.

Stuiver, M. and B. Becker
1986 A Decadal High-Precision Calibration Curve. *Radiocarbon* 28:863–910.

U.S. Department of Agriculture
1981 Soil Survey of Davidson County, Tennessee. Soil Conservation Service, Nashville.

Wilson, C.W., Jr.
1949 *Pre-Chattanooga Stratigraphy in Central Tennessee*. Tennessee Division of Geology Bulletin 56. Nashville.