ARCHAEOLOGICAL EXCAVATIONS AT THE RUTHERFORD-KIZER SITE

A Mississippian Mound Center in Sumner County, Tennessee

Edited by Michael C. Moore and Kevin E. Smith

Tennessee Department of Environment and Conservation
Division of Archaeology
Research Series No. 13

Revised Electronic Edition, 2016
edited by Aaron Deter-Wolf
and Michael C. Moore

Original Edition, 2001

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Front cover: Negative painted owl effigy hooded bottle recovered from Rutherford-Kizer by Edwin Curtiss in 1878. Peabody Museum number 79-4-10/17247. Reproduced with permission of the Peabody Museum of Archaeology and Ethnology at Harvard University.

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ACKNOWLEDGMENTS

No words will ever be adequate enough to express our appreciation to the many people who endured physical as well as mental duress in order to salvage the archaeological record from the Rutherford-Kizer site area. Without a doubt, the key to this project's success was the willingness of individuals from different backgrounds to work together in order to accomplish the task at hand.

The multi-year Rutherford-Kizer project would certainly not have been as successful without the cooperation of Mr. Tom Tyree and Mr. Jack Tyree. When informed of the nature of the property they had purchased, these gentlemen graciously provided the Division of Archaeology access to the site area several months before construction was scheduled to begin. Despite some differences of opinion as the development progressed, the Tyree's continued to allow Division personnel unrestricted right-of-entry to the property. The Tyree's eventually set aside about four acres of the core site area as greenspace, and donated this land to the Native American Indian Association (NAIA) for future protection and preservation.

Division of Archaeology Director Nick Fielder approved the substantial investment of Division time and personnel required to examine the Rutherford-Kizer site area. Michael Moore and Kevin Smith co-directed the initial 1993 survey and testing program at 40SU15. Michael Moore directed the Division field investigations over the course of the 1994 and 1995 seasons. Division staff members including the late Gary Barker, Emanuel Breitburg, John Broster, Suzanne Hoyal, Don Merritt, Mark Norton, Katherine Sanford, and the late Parris Stripling contributed considerable field and laboratory assistance at the expense of their own project responsibilities.

An eclectic group of volunteers donated their time and energy to the Rutherford-Kizer project. In fact, over 70 people participated in the initial 1993 reconnaissance and testing program. These volunteers included professional archaeologists, experienced avocational archaeologists, graduate and undergraduate anthropology students from Vanderbilt University, and interested members of the general public.

Middle Cumberland Archaeological Society (MCAS) members Roger Armes, Georgia Dennis, John Dowd, Carney Elliott, the late Raymond Falkenberry, George Heinrich, and the late Bill Shepard deserve special recognition for their tremendous effort and enthusiasm. The 1993 test excavations would not have been the success it was without the tireless work of these dedicated volunteers.

This special recognition in no way detracts from our sincere appreciation to the many other project volunteers during the 1993–1995 investigations. Our heartfelt thanks are extended to Dan Allen, Karolo Aparicio, Quentin Bass, Chris Beekman, Dale Campbell, Susan Campbell, Alec Christensen, Parker Clendening, Robert Clendening, Will Clendening, Jonathan Deicher, Kathy Deicher, Willy Deicher, David Dorich, Marion Dunn, Nilda Flores, Charles

Goldthwaite, Jr., Nathan Goodrich, Wanda Goodrich, Toye Heape, Gwen Henderson, James Hixson, Rob Karwedsky, Michael Lambert, Jody Locke, Teresa Locke, Adam McDonald, Byron McDonald, Nathan McDonald, Alexander Miller, James Moore, Alex Mullen, Bob Pace, Joel Palka, Andrea Pennington, Dave Pollack, John Reid, Karen Reid, Steve Rogers, Lib Roller, Arden Rose, Ann Nell Sanders, Carol Smith, Kenneth Smith, Paige Smith, Trip Smith, Wanda Smith, Dale Spradlin, Alan Tally, Rick Taylor, Pamela Wood, and Beth Wright. We apologize to any individual that may have been inadvertently omitted from this volunteer list.

The private consulting firm of DuVall & Associates, Inc. conducted the initial consultant investigations during the early summer of 1994. This firm returned to the site area in late 1994 and removed 54 burials. Dan Allen, Rick Anderson, Derrick Dee, Richard Josephs, the late Abigayle Robbins, and Rick Taylor comprise the DuVall staff that performed this removal.

Several members of the Native American community established dynamic roles over the course of the Rutherford-Kizer site excavation. The editors would like to especially acknowledge Gerry Bogan and Toye Heape for their efforts during the project. Their views were (and continue to be) most welcome.

Many of the artifacts and waterscreen/flotation samples recovered during the 1993 program were processed with the assistance of previously mentioned MCAS and other volunteers. Division personnel processed similar materials from the various 1994 and 1995 investigations, with valuable help from Jaime Storvik.

Personnel within as well as outside the Division of Archaeology combined their abilities to analyze the Rutherford-Kizer artifactual assemblage. Emanuel Breitburg identified the human skeletal and non-human faunal remains. Michael Moore examined the chipped and ground stone artifacts. Michael Hoyal of the Tennessee Department of Environment and Conservation, Division of Geology was consulted to identify the source of several lithic specimens. Andrea Shea of the Tennessee Department of Environment and Conservation, Division of Natural Resources analyzed the charred botanical remains. Kevin Smith of the Middle Tennessee State University Department of Sociology and Anthropology examined the extensive ceramic assemblage with the assistance of Michael Moore. Suzanne Hoyal of the Division of Archaeology further analyzed the fabric impressed ceramic specimens to report on the textiles present at 40SU15. Drew White, an artist with Nashville's daily newspaper *The Tennessean*, donated his talents to draw selected ceramic artifacts recovered during the 1993–1995 investigations, and Ken Presley digitized the original field maps. The photograph used for the original 2001 edition report cover was provided courtesy of Sam Smith and is part of the Peabody Museum collection from Rutherford-Kizer.

Immeasurable thanks go to Steve Rogers and the Tennessee Historical Commission for matching grant funds that allowed the editors to visit the Peabody Museum of Archaeology and Ethnology at Harvard University during March 1998 and again in March 1999. These grants provided the means to conduct critical research regarding the December 1878 excavation of the Rutherford-Kizer site that was sponsored by the Peabody Museum.

Our visits to the Peabody Museum were very successful thanks to the professional courtesy and service provided by Susan Bruce (Associate Curator, Textiles, Collections Department), Sarah Demb (Archivist), and Gloria Greis (Manager, Archaeology and Osteology Collections). All of our requests were handled in an expedient manner with a spirit of cooperation. We also want to acknowledge Robert Ganong (Curatorial Assistant, Annex) for his friendliness and patience with two Tennessee researchers that had invaded his peaceful domain. Bob took time away from his own work to answer our seemingly endless questions.

The Peabody Museum staff continued to provide quality and courteous support throughout the report preparation. Their permission to publish Peabody Museum material is greatly appreciated. Also, this report is a much better product thanks to the review comments of Sarah Demb.

Doane Perry, Karen Carmean, and Curt Perry made our stays in Cambridge a most pleasant experience. Their friendly nature and enthusiasm for life made our overwhelming assignment much easier to undertake. We heartily recommend A Bed and Breakfast in Cambridge to anyone in search of a home away from home.

And last (but certainly not least) Roger Armes, Jennifer Bartlett, Suzanne Hoyal, Julie Moore, and Steve Rogers provided valuable support toward the completion of this work.

PREFACE TO THE DIGITAL EDITION

Aaron Deter-Wolf

The digital edition of the Rutherford-Kizer site report was produced from 2015–2016 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 TDOA publications and create a permanent digital archive of site data. Creation of the digital edition consisted primarily of converting original .xls and .doc files to contemporary file formats using a combination of Microsoft Office 2010, Google Drive, and the Adobe Creative Suite. During this process page margins, line and page breaks, and header styles were adjusted to facilitate digital text flow. Citations and the bibliography were also updated to reference contemporary literature on the Middle Cumberland Mississippian, and large data tables were relocated to appendices.

The 2001 report edition included enlargements from 35mm black-and-white film as well as hand-drafted images. With the assistance of Mark M. Crawford III, all site imagery including 35mm slides, black and white negatives, and project maps were digitized prior to producing the digital edition. Figures and tables that existed only as printed hard copies or images on Mylar were recreated as digital files using the Adobe Creative Suite and/or Microsoft Excel. In some instances, figures from the original report were replaced with new versions in order to capitalize on the full-color capability of the digital report format. Finally, the digital report file was saved as a .pdf and optimized for online viewing, including the insertion of objects and tags for in-document navigation.

Following decades of investigations at sites such as Rutherford-Kizer and analysis of substantial artifact collections from Middle Tennessee, Moore and Smith have recently revised and expand the chronology of the Middle Cumberland Mississippian. This updated provisional chronological sequence, based in part on analysis of ceramic typologies, settlement patterns, and burial styles, was first presented in the concluding chapter of their 2009 volume *Archaeological Expeditions of the Peabody Museum in Middle Tennessee, 1877–1884* (available for free download from the Division of Archaeology web page). That volume also presents further discussion of the history of excavations at Rutherford-Kizer, and additional illustrations of materials from the site that reside in the collection of the Peabody Museum of Archaeology and Ethnology at Harvard University.

Moore and Smith's revised chronology provides an important new framework through which to evaluate the late prehistoric occupation of Middle Tennessee. However, as a result of that 2009 publication, the cultural sequences referenced in this volume (see Chapter 13) no longer reflect current understandings of Mississippian chronology in the Middle Cumberland region. Instead, the updated sequence abandons the use of the Dowd and Thruston phases in favor of unnamed regional periods designated using Roman numerals I through V. The previously-identified Dowd phase now falls across Regional Periods II (A.D. 1100–1200) and III

(A.D. 1200–1325), while the Thruston phase —and therefore the main occupation of the Rutherford-Kizer site— is encompassed within Regional Periods III and IV (A.D. 1325–1425).

Regional Period III of the Middle Cumberland Mississippian, described as the "Proliferation of Chiefdoms" (Moore and Smith 2009:208) witnessed a major population expansion, apparently tied to the rise of numerous small political centers. Mortuary patterns at this time include increasing frequency of stone-box graves, as well as the construction of small burial mounds consisting of tiered stone-box graves.

Regional Period IV, described as "Region-Wide Decentralization" (Moore and Smith 2009:208) is marked by the emergence of large village cemeteries and a shift from wall-trench to single post residential architecture. Both types of structures are present at Rutherford-Kizer. Following initial formation of numerous small, typically fortified villages, the end of Regional Period IV appears to correspond to a rapid decline in the number and size of these sites and a gradual abandonment of the Middle Cumberland region. Emerging research suggests this process may reflect a combination of political fracturing and environmental stresses brought on in part by periods of prolonged drought.

In addition to the work of Moore and Smith, there have been several other evaluations of materials from the Rutherford-Kizer site in the 15 years since the original report was published. Clinton and Peres (2008, 2011) reexamined the faunal assemblage from Rutherford-Kizer, and determined that animal species favored by the site's inhabitants prefer anthropogenically-disturbed and forest-edge environments such as agricultural fields. This led them to conclude that exploitation of animal resources at Rutherford-Kizer was predicated less on the natural setting than on a systematic garden hunting strategy.

As part of their dissertations from SUNY Binghamton, Worne (2011) and Vidoli (2012) both examined skeletal remains from 22 human burials at Rutherford-Kizer collected during the Putnam and Curtiss explorations and now housed at the Peabody Museum at Harvard. Worne identified evidence of scalping on the skull of an adult male from the site, while Vidoli concluded that the skeletal remains exhibit a high biological distance from other Middle Cumberland Mississippian sites, perhaps suggesting limited gene flow between Rutherford-Kizer and these other settlements.

Finally, in her 2013 dissertation from the University of Georiga, Beahm (2013) suggested that Rutherford-Kizer functioned as a polity capital for approximately 75 years around A.D. 1325–1400. Beahm further pointed out similarities in material culture between Rutherford-Kizer and the site of Castalian Springs, located approximately 27 km to the east. Based on these similarities and the date ranges for the two sites, Beam suggests that following the collapse of the Castalian Springs chiefdom, some former residents of that site may have moved west to Rutherford-Kizer.

The Peabody Museum of Archaeology and Ethnology at Harvard curates 82 objects from the Rutherford-Kizer site. Those materials, along with basic imagery and provenience information, may be accessed through the Peabody Museum Collections Online.

INTRODUCTION

Michael C. Moore

Early archaeological investigations within the Middle Cumberland River valley centered upon a number of highly visible mound centers, including the Rutherford-Kizer site (40SU15). These places of concentrated human activity captivated the interests of avocational and "professional" archaeologists alike during the 19th and early 20th centuries (Haywood 1823; Jones 1876; Myer 1928; Putnam 1878; Thruston 1897; Troost 1845). Most of the work conducted by these early investigators has been criticized as destructive and unscientific by today's standards. Such criticism, while understandable, should be tempered with the realization that our current understanding of Middle Cumberland intrasite organization and material culture has drawn heavily from their efforts.

In fact, for some sites these early excavations comprise the only documented work available to modern researchers. One prime example of our dependence on these early reports is the DeGraffenreid site (40WM4) in central Williamson County. First presented in Jones (1876) and later Thruston (1897), this major mound complex was completely destroyed by phosphate mining in the late 1960s (Smith 1994). Despite the majesty and grandeur this site must have projected, no laws or strong public sentiment were available to prevent or at least mitigate the eradication of this mound complex. An untold wealth of information regarding Mississippian period life was lost forever without the benefit of one day of modern archaeological evaluation.

As fortune would have it, the Rutherford-Kizer site did not suffer the same tragic fate as DeGraffenreid and several other mound centers in the Middle Tennessee area. The primary reason for this survival appears to have been the site's location in a rural farming area away from planned urban growth. Like most surviving mound centers, however, Rutherford-Kizer was not completely spared from injury. A variety of periodic destructive actions have impacted the site since its first exposure to the archaeological community over 100 years ago (Thruston 1897). Demolition of the large platform mound for yard fill, long-term looting of graves across the site area, and continuous farming activity were among these actions. Despite these troublesome episodes, much of the Rutherford-Kizer site area managed to remain in relatively good shape and free from serious earthmoving damage.

All good things must come to an end, as the saying goes. During January of 1993, concerned local residents notified the Tennessee Division of Archaeology that a tract of land in southwest Sumner County had been sold for subdivision development (The Meadows). This tract was reported to include a portion of the Rutherford-Kizer mound complex. The Division immediately conducted a field visit and confirmed that the proposed subdivision would indeed impact roughly one-third to one-half of the southern Rutherford-Kizer site area. Prompt notification of the real estate agent and other interested parties resulted in a series of progressive communications between the Division and the developers (Tom and Jack Tyree). These discussions primarily focused upon: (1) the nature of the archaeological site itself; (2) the

high probability of human burials being present within the proposed subdivision area; and (3) the developer's legal responsibilities for dealing with the human remains.

During these initial meetings, the Division asked permission to conduct a limited reconnaissance and testing program that would mutually benefit both parties. For the Division, an assessment of the archaeological deposits would provide first-hand information on such basic variables as stratigraphy, feature types, material culture, and intrasite settlement pattern. In turn, the developer could use this information as a baseline for the probability of intact human remains and other archaeological resources on his recently acquired property. The Tyrees were genuinely concerned about the potential presence of human graves, and agreed to this proposal.

Figure 1. East site area excavation, October 1993, looking west.

Work began during the last week of September and continued through the middle of November 1993. Over seventy people (professional archaeologists, avocational archaeologists, graduate and undergraduate students, and interested members of the general public) united to examine the site under the direction of Division archaeologists Michael Moore and Kevin Smith. Investigations were concentrated within the eastern site area since construction was scheduled to begin in this location (Figure 1).

The program was very successful in defining the nature of archaeological resources present within the proposed construction area. Ten human burials were exposed (but not

removed) during this initial work. Stone-box graves, pit burials, and a bundle burial were represented in the sample. Surface indications for additional graves were noted across other areas of the site. Non-mortuary features were also recorded during the excavations. These features included seven refuse-filled pits, 144 structure posts, and a palisade trench. A rich and diverse collection of artifactual material was recovered from an intact midden zone as well as the non-mortuary features.

In late November 1993, several weeks after the testing program was completed, Division personnel monitored the removal of plowzone topsoil within a small area near the south central site boundary. A cluster of four stone-box graves was exposed in this stripped zone. All of these burials were mapped, photographed, and covered over with soil. This cluster was clearly marked for heavy machinery to avoid during subdivision construction activities.

In early January 1994, a map of the proposed development marked with the most sensitive archaeological areas was prepared by the Division and presented to the developers for planning purposes. This map utilized information obtained from the Division excavations in concert with the early site map in Thruston (1897). The documentation of intact human burials did not deter the Tyrees from their commitment to build the subdivision. They indicated their willingness to identify all graves within proposed construction areas, and legally remove any burials subject to destruction by earthmoving activity. Over the following winter and spring months of 1994, the Division and the Tyrees maintained a continuous exchange of ideas over the appropriate methods to identify and, if necessary, remove the graves.

Road grading activity had moved into the site area by early summer of 1994 (Figure 2). At that time the developer hired a private archaeological consulting firm to identify any human burials within the high potential areas previously marked by the Division. An estimated 100 stone-box graves, and at least that many pit features were identified only after a few days of investigation (Kevin Smith, memorandum to Nick Fielder, June 29, 1994). About one week into the burial location process, all activity within the site area was stopped. After additional consultation with the Division and other officials, the Tyrees decided to revise their subdivision plan to avoid the areas of higher grave density.

By the beginning of July 1994, the Rutherford-Kizer site had become a virtual “hot potato” for the developer. News of the proposed removal of human graves had the full attention of the Native American community and other concerned individuals. Media attention was also becoming a factor with newspaper articles and television interviews condemning the construction impact on Native graves. Incidents of site vandalism were also beginning to occur as the proposed project began to gain the attention of relic collectors and other “interested” citizens. The acts of willful destruction were of particular concern to both the Division of Archaeology and the developer.

Consideration of numerous factors encouraged the Tyrees to submit a revised subdivision plan in mid-August 1994 (Figure 3). The highlight of this revised plan was the nearly four acres of core site area set aside as greenspace. This acreage contained the highest density of human graves and other archaeological resources previously defined by the Division and the

consultant. A small lot on top of a knoll near the southeast corner of the property was also established as greenspace. This generous revision saved a substantial portion of the site area from total destruction. By designating these areas as greenspace, the developer reduced his total number of building lots from 111 to 102.

Figure 2. Division investigation of feature in early road cut, summer 1994, looking north.

In late September 1994, with an approved lot plan in hand, the developer petitioned the local chancery court for a termination (of land use as cemetery) order for selected building lots adjacent to the two greenspace zones. The court order was issued in October 1994. Private archaeological consultants were again hired to locate and (this time) remove all human graves within these designated lots. Since the developer was only legally responsible for the burials, the Division of Archaeology requested the opportunity to be on-site to map and (as time would allow) investigate the non-mortuary cultural resources exposed during the burial removal process. Permission from the landowner was necessary for the Division to be present since this venture was conducted on private property without federal or state involvement.

From early November through December 1994, the consulting firm exposed and removed a total of 54 graves from lots 74–80. Two additional graves were later identified and exhumed by the Division from lot 76. Division personnel also mapped 601 postmolds, nine structures, 45 refuse-filled pits, two palisade lines with bastions, and other assorted prehistoric features in the limited time (approximately seven weeks) available during the burial removal.

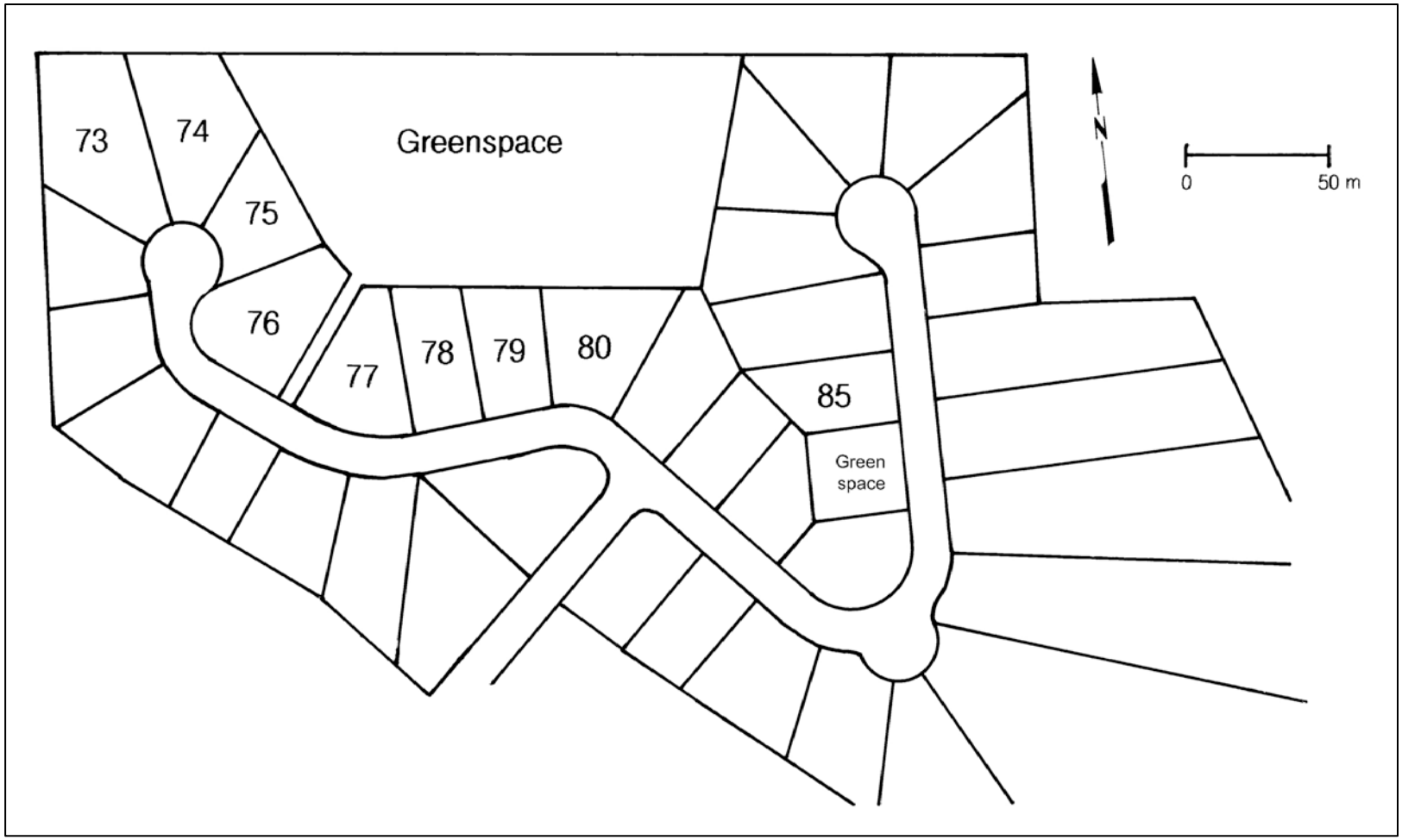

Figure 3. Revised subdivision plan with new greenspace designations.

All human skeletal elements removed by the consultants were transferred to the Division of Archaeology for processing and analysis. Although state law allows up to one year for analysis, the Division had the remains available for reburial within two months time. A ceremony to rebury the exhumed individuals was performed on-site in mid-June 1995 under the direction of the Tennessee Commission of Indian Affairs. A small, sterile parcel within the large greenspace was designated as the reburial location. A total of 59 people from the Rutherford-Kizer site were reburied in a small slot trench. No artifacts were included with these individuals. Under a somewhat unique arrangement with the Commission, additional skeletal remains from other prehistoric sites across Tennessee were placed alongside the Rutherford-Kizer inhabitants.

Building activity across the site periphery proceeded without the need for additional archaeological excavation until the early summer of 1995. Lot 85, adjacent to the southeast area greenspace, was scheduled for construction in June 1995. As this lot was immediately next to a sizeable cluster of stone-box graves, the expectation of additional burials was very high. This area was covered under the court order obtained in October 1994, and removal of all burials within this lot was necessary prior to construction. Division of Archaeology personnel identified and removed 25 graves (with a total of 27 individuals) from late June through July 1995 (Figure 4). Three refuse-filled pits and one very large burned pit were also exposed and mapped.

Figure 4. Division investigation of lot 85 in summer, 1995, looking north with large greenspace in background.

Examination of these 27 individuals was also conducted in a timely manner. An analysis of these skeletal remains was completed within one month of the end of fieldwork. The Tennessee Commission of Indian Affairs held a second reburial ceremony on site for these remains in late September 1995. The trench used for the previously removed burials was relocated and slightly extended to accommodate these new remains. As before, no artifacts were reburied with these individuals.

One final archaeological investigation at Rutherford-Kizer took place during the first week of September 1995. Earthmoving activity along the rear of lot 73 exposed a significant section of the palisade trench. This fortuitous discovery enhanced the definition of the west exterior wall boundary. A complete reconnaissance of the cleared area by Division personnel recorded 60 postmolds (28 associated with the palisade), three refuse-filled pits, one structure, and one (isolated?) ceramic vessel.

Earthmoving activity within the site area was essentially finished by October 1995. This marked the end of nearly two years of continuous site evaluation by the Division of Archaeology. In addition to the previously mentioned excavations, Division archaeologists performed an untold number of surface inspections throughout the course of the subdivision development. All things considered, the 1993–1995 investigations yielded an abundance of information concerning the settlement and subsistence patterns of the Rutherford-Kizer residents.

The efforts of numerous individuals were rewarded by the May 1997 dedication of a historical marker that recognized the Rutherford-Kizer site as a prehistoric locale of statewide significance. This marker from the Tennessee Historical Commission was erected within the large greenspace area as a visible reminder of the native people who lived and died hundreds of years before the arrival of European settlers (Figure 5).

Over the course of the Rutherford-Kizer project, a total of 86 individuals (from 81 graves) were exhumed under court order from the site area. This project could easily have become just another burial removal (of limited archaeological value) had it not been for the cooperation of Tom and Jack Tyree. Their generous attitude avoided a repeat of the disastrous grave removal from the Hooper site (40DV234) along the Stones River in eastern Davidson County (Smith and Moore 1996a). In the Hooper case, the landowner observed a strict interpretation of the law to removal of the human remains only. All of the exposed non-mortuary features at this Mississippian period village (including numerous structures, refuse-filled pits, and hearths) were destroyed with virtually no opportunity for archaeological assessment or excavation.

The archaeological record at 40SU15 was considerably enhanced by the Division's ability to examine the non-mortuary remains within the impacted site area prior to, as well as during, the removal of graves. The variety of non-mortuary resources observed during the Division investigations, when combined with the burial data, offers archaeologists a much more enlightened understanding of prehistoric activity within the Rutherford-Kizer community.

Figure 5. Historical marker erected in large greenspace, looking north.

Five different authors have contributed their talents within this edited report to present a comprehensive view of the Rutherford-Kizer mound complex. Chapter I consists of a brief outline of the study area environmental setting. Chapter II, by Kevin Smith and Michael Moore, provides a historical perspective of the Rutherford-Kizer site, including the December 1878 work sponsored by the Peabody Museum at Harvard University. Michael Moore presents a detailed discussion of the 1993–1995 project methods and results in Chapter III. Chapter IV by Michael Moore describes the non-mortuary features uncovered by Division personnel and the consulting archaeologists. Chapter V displays the results of fifteen radiocarbon dates obtained for the site. An analysis of all exhumed skeletal remains from the site area is presented in Chapter VI by Emanuel Breitburg and Michael Moore.

Chapters VII through XI contain the analyses of artifacts recovered from the 1993–1995 investigations. An analysis of the lithic assemblage conducted by Michael Moore is presented in Chapter VII. Chapter VIII contains an analysis of the vertebrate faunal remains by Emanuel Breitburg and Michael Moore. A study of the charred floral remains by Andrea Shea and Michael Moore is presented in Chapter IX. Kevin Smith and Michael Moore examined the substantial ceramic assemblage and present their results in Chapter X. Chapter XI by Michael Moore provides an inventory and description of other artifact categories recovered from 40SU15. Included in this section are the daub, shell, and mineral items from the 1993–1995 investigations. This chapter also contains an inventory of artifacts reported to have come from the Rutherford-Kizer site area (these particular items are currently held in museum and private collections).

Chapter XII by Michael Moore and Kevin Smith is devoted strictly to the artifacts recovered from the 1878 Edwin Curtiss excavation at Rutherford-Kizer. The editors decided that a separate section would be best to avoid confusion between the past and modern excavation results. Such separation does provide an opportunity to compare the types of artifacts present at 40SU15 over 100 years ago, as well as the differences in material preservation. Summary remarks regarding the Rutherford-Kizer site are provided in Chapter XIII by Michael Moore and Kevin Smith.

Nine appendices appear at the end of this report. Appendices A and B by Michael Moore provide a list of corrected feature and burial numbers for the 1993–1995 investigations. These corrected numbers were necessary to devise an accurate system that merged the overlapping number sequences used by the Division of Archaeology and private consulting archaeologist. Appendix C, also by Michael Moore, contains descriptions of the 882 feature designations recorded throughout the 1993–1995 work. Information on feature type, plan view and dimensions, profile, depth, associated artifacts, and additional remarks are provided in this appendix. Appendix D presents a compilation of data prepared by Michael Moore, Emanuel Breitburg, and Kevin Smith on 91 human graves recorded during the modern investigations (81 graves with 86 individuals were removed under court order). Each burial has a general description, followed by information on age, sex, pathology, and anomaly. Metric dimensions were generally limited due to the fragmented nature of the skeletal remains. However, such measurements are provided with the description when possible. Appendix E by Michael Moore presents the provenience and number of recovered lithic artifacts. Appendix F by Emanuel Breitburg and Michael Moore presents a straightforward list of faunal remains by provenience. Appendix G contains a descriptive analysis by Suzanne Hoyal of the various textiles used in the manufacture of fabric-impressed ceramics. Appendix H is a page by page transcription of three letters and one set of notes from Edwin Curtiss that provide valuable insights into his 1878 work at Rutherford-Kizer. Kevin Smith and Michael Moore performed these transcriptions. Finally, Appendix I was prepared to organize bag field numbers by provenience and accession number. The need for such a compilation was created for those instances where multiple bag numbers were assigned to the same feature. This pleasant problem derived from either two or more volunteers working on the same feature, or a particular feature being worked on two or more days.

This Rutherford-Kizer report represents yet one more piece towards solving the Middle Cumberland Mississippian puzzle. The Middle Cumberland Mississippian Survey Project (MCMSP) was formed in the early 1990s with a primary goal toward the dissemination of information on Middle Cumberland Mississippian sites (Smith 1993a). Since that time, a substantial amount of data has been made available to the professional archaeological community and general public (e.g., Moore 2005; Moore and Breitburg 1998; Moore and Smith 1993a, 1993b, 1994, 2005, 2009; Moore et al. 2006; Smith 1993b, 1994; Smith and Moore 1994, 1995a, 1995b, 1996a, 1996b, 1996c, 1999; Smith et al. 1993).

The information presented in this report was substantially enhanced by the fortuitous (1997) discovery that the Peabody Museum at Harvard University had sponsored an excavation at Rutherford-Kizer in 1878 (Brain and Phillips 1996). This surprise finding created a sense of

anticipation that intensified when we later discovered that notes and artifacts from this investigation were cataloged and stored in the museum collections. High hopes came not from the previously known fact that Frederic Ward Putnam had conducted site excavations within the Nashville area in September 1877 (Putnam 1878; Williams 1986). Rather, excitement was generated with the unexpected revelation that the Peabody Museum had continued to sponsor additional site explorations across Middle Tennessee after Putnam's 1877 visit to Nashville.

Armed with these suspicions and a grant from the Tennessee Historical Commission, the editors visited the Harvard University Archives and Peabody Museum of Archaeology and Ethnology repository for four days in March 1998. The primary goal during this visit was to inventory the Rutherford-Kizer notes and artifacts, and afterward examine any other collections from Middle Tennessee sites that might be present. However, our first look at the quantity and quality of material from Middle Tennessee within the repository collections can only be described as truly awe inspiring. Shelves with complete negative painted and other exotic ceramic vessels, drawers full of "other" ceramic vessels (notched rim bowls, strap-handle jars, etc.), Dover tools (especially ovate knives, celts, chisels), greenstone celts, large discoidals, shell items (marine beads and earplugs, freshwater spoons), and numerous other assorted artifacts. We immediately realized that we had initiated something much broader in scope than originally anticipated, and that at least one additional trip would be necessary. Thus, the editors returned to the Peabody Museum for four days in March 1999. During these two trips, we successfully documented the Rutherford-Kizer material, as well as artifacts from such sites as Noel Cemetery (40DV3), Gordontown (40DV6), Traveller's Rest (40DV11), Fort Zollicoffer (40DV32), Brick Church Pike Mound (40DV39), Bowling Farm (40DV426), Old Town (40WM2), Arnold (40WM5), Gray's Farm (40WM11), and Brentwood Library (40WM210). Most of the cultural material from the Sellars site (40WI1) had been pulled by another researcher and was not available for examination.

This Rutherford-Kizer report is the first work to directly benefit from the truly amazing Tennessee record and artifact collections at the Harvard University Archives and the Peabody Museum of Archaeology and Ethnology. Information obtained during the editors' visits has led to one addendum (Moore 2001) of a previously published report (Moore and Breitburg 1998). Additional report augmentations will certainly follow (e.g., Moore and Smith 2009).

Upon completion of the original version of this report, all non-burial artifacts and other materials recovered over the course of the project were returned to the Tyree family.

I. ENVIRONMENTAL SETTING

Michael C. Moore

Rutherford-Kizer is located upon the south face of a gently sloping, dissected upland ridge toe in southern Sumner County (Figure 6). This Mississippian settlement was founded along the west bank of Drakes Creek, a meandering tributary of the Cumberland River. Drakes Creek flows in a southerly direction through southwest Sumner County and joins the Cumberland River about five miles south of 40SU15. Several springs also occur west and north of the immediate site area. Elevations across the site area range between 500 and 540 feet AMSL (Figure 7). The dissected upland system upon which Rutherford-Kizer occurs reaches a maximum elevation of 800 feet AMSL about 1.5 miles to the northwest.

Physiography

Site 40SU15 was established along the northern border of the Central Basin physiographic region, an elliptical depression surrounded by the Highland Rim (Miller 1974:5). The Central Basin was formed during the late Paleozoic era by the relatively rapid erosion of an uplifted portion of bedrock known as the Nashville Dome. This region extends roughly 125 miles north to south and 60 miles east to west, and is often divided into inner and outer sections (Figure 8). Rutherford-Kizer occurs within the outer basin which is characterized by higher elevations and more deeply dissected terrain in contrast to the generally smooth and gently rolling inner basin. Elevations in the outer basin average about 750 ft. AMSL, with some hills reaching as high as 1300 ft. AMSL. Inner basin elevations are lower, averaging around 600 ft. AMSL.

Numerous large to moderate streams meander through the Central Basin. Rutherford-Kizer was established on a primary tributary of the generally westward flowing Cumberland River as it twists and turns across the Central Basin. Several other major streams that also have a winding course through the Basin include the Harpeth and Stones Rivers that run in a northwest direction. The Duck and Elk Rivers, although well south of the general study area, also take sinuous routes across the Basin. The Duck River flows in a west to northwest manner, whereas the Elk River takes a west to southwest route.

Underlying bedrock within the Central Basin is predominantly Ordovician limestone, shale, and dolomite (Miller 1974:9). Silurian, Devonian, and Mississippian rocks are preserved as erosional remnants. The Mississippian Fort Payne formation overlying Chattanooga Shale marks the contact between the Central Basin and Highland Rim (Wilson 1949:2). Most of the inner basin is covered with Stones River formation limestone. This section of the Central Basin also exhibits patches of bare platy rock and thin topsoil with red cedar glades. Such karst features as caves and sinkholes also characterize the inner basin.

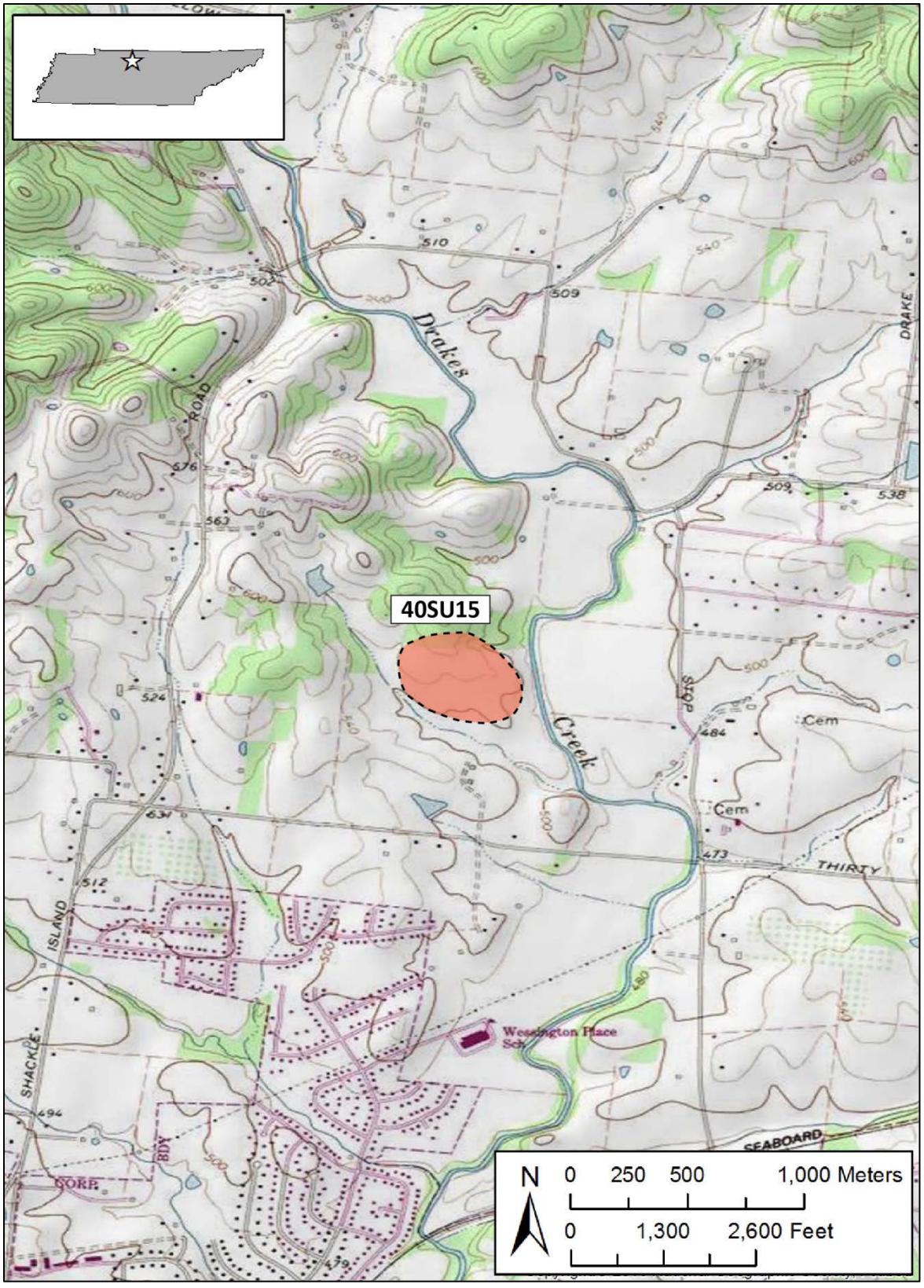

Figure 6. USGS quadrangle map location of the Rutherford-Kizer site.

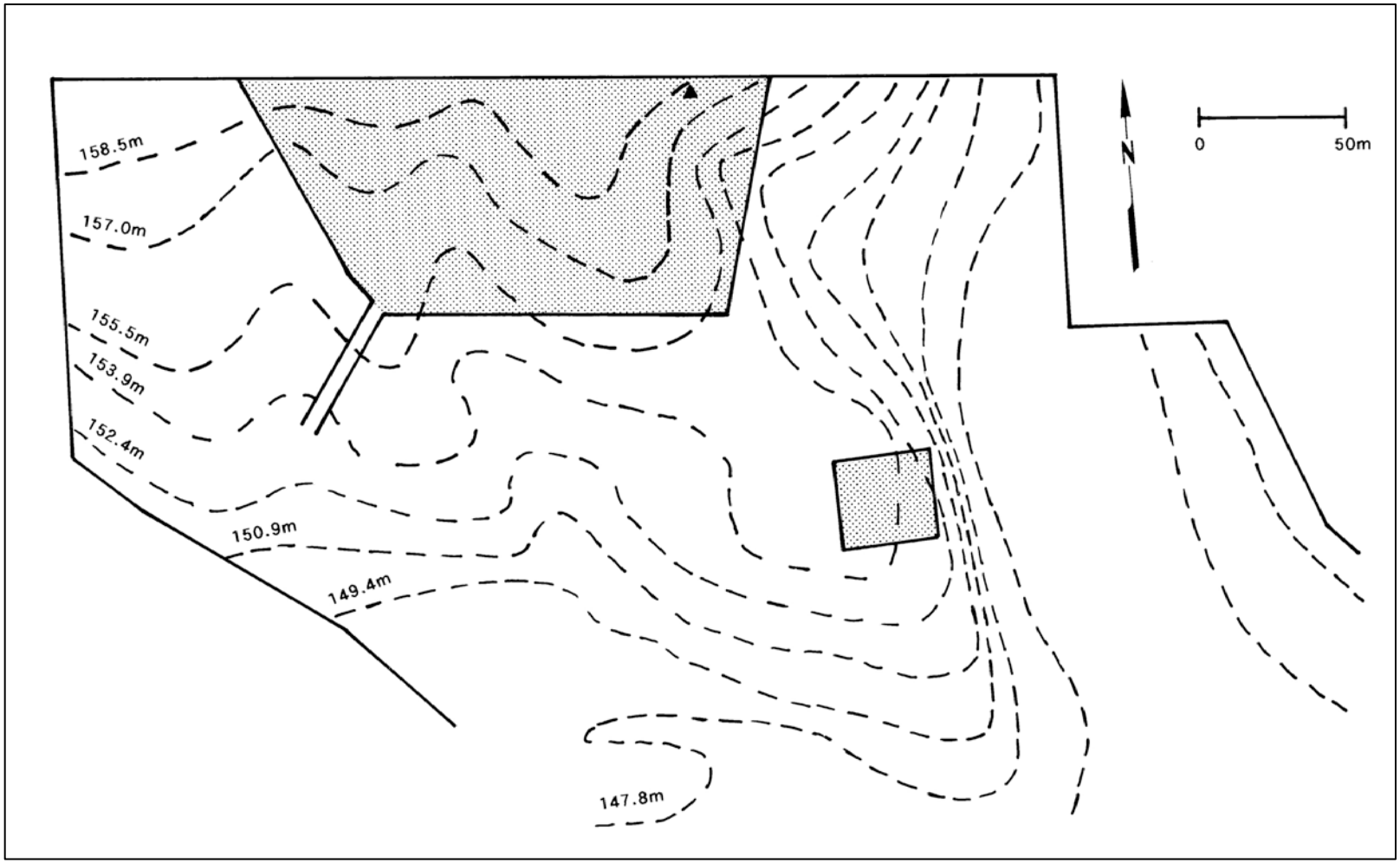

Figure 7. Topographic map of the Rutherford-Kizer site with greenspaces.

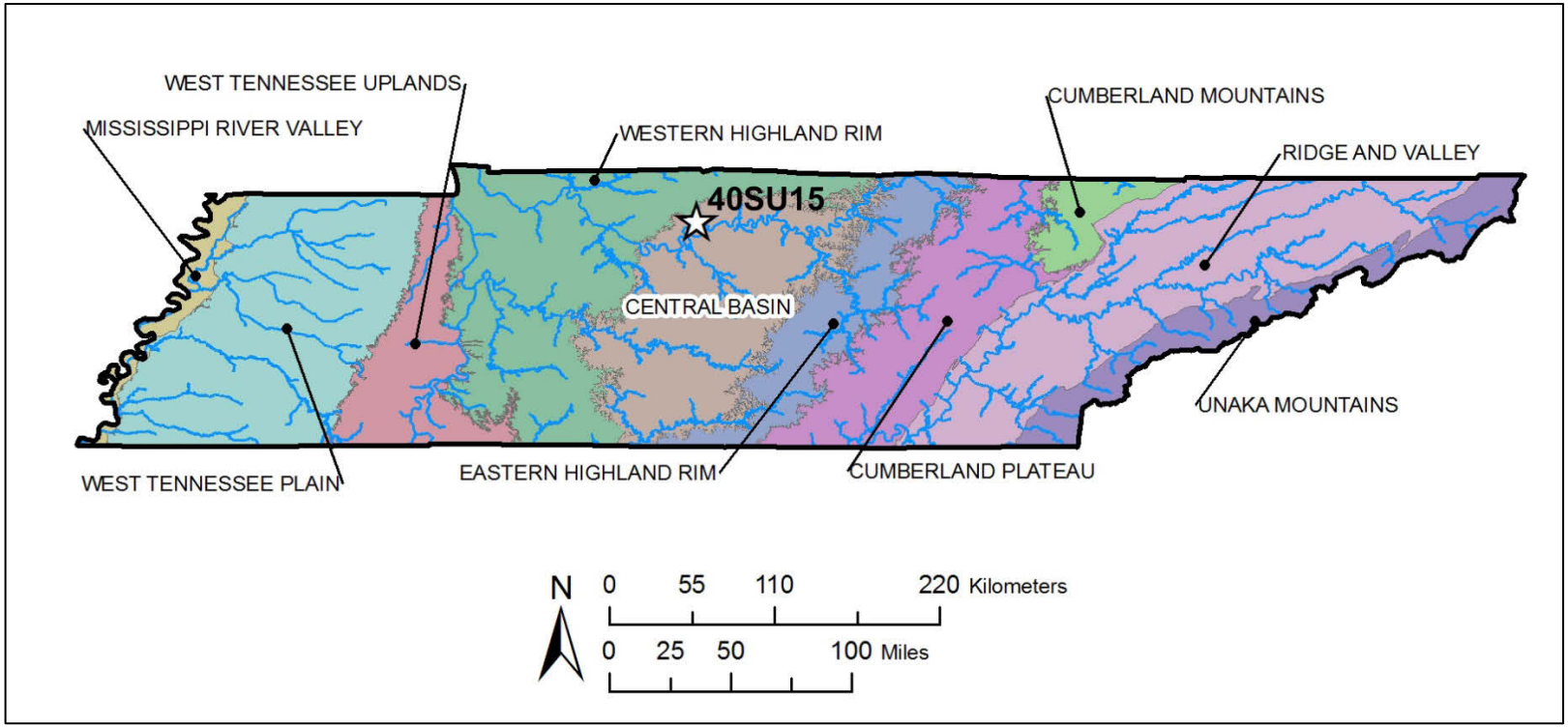

Figure 8. Physiographic region map with Rutherford-Kizer site location.

Soils

Soils within the Central Basin were formed from underlying Ordovician limestone deposits. These soils have a high silt content, and are rich in calcium derived from the parent material. For the outer basin, the parent material is also exceedingly phosphatic. This high phosphate component has led to intensive mining operations across the entire outer basin area. Thick deposits of alluvium and colluvium are present in basin valley floors. Loess covers a small percentage of soils within the region.

Rutherford-Kizer was established upon soils classified as Maury-Braxton-Harpeth with slopes generally less than 12 percent (Springer and Elder 1980:38). This series occurs in gently sloping uplands and consists of deep, well-drained, clayey and silty soils derived from phosphatic limestone, alluvium, and thin loess. Some of the best upland farming areas in Tennessee occur within this soil series.

Climate

The climate of Middle Tennessee is best described as temperate with distinct seasonal changes (USDA 1981:2). Winters in this region are generally mild with average daily temperatures of 40 degrees F. However, cold snaps as low as -15 degrees F. do occur on occasion. Summers are often hot with temperatures in the high 90s to low 100s F. common during July and August. Relatively high humidity averages (around 60%) during these hot months combine to make summers somewhat uncomfortable.

The study area averages nearly 48 inches of annual precipitation. Most of this precipitation occurs in the form of rain as snow falls on an infrequent basis and in minimal amounts. Rainfall is heaviest between early spring and early fall, which coincides with the growing season for most crops. Thunderstorms are common during the summer months.

Flora and Fauna

Most of the Central Basin, including the Rutherford-Kizer site area, occurs within the Western Mesophytic Forest Region (Braun 1950). This region originally supported upland climax communities of oak, hickory, tulip tree, beech, and chestnut. Hickory, winged elm, hackberry, and blue ash were among the species that covered the lower hills and flats. Cedar glades were (and continue to be) abundant in the inner basin.

Middle Tennessee falls within the Carolinian Biotic Province that is characterized by a rich and diverse faunal assemblage (Dice 1943). Native mammals include white-tail deer, elk, black bear, mountain lion, gray wolf, raccoon, bobcat, fox, mink, otter, skunk, weasel, muskrat, woodchuck, squirrel, cottontail rabbit, and opossum. Eagle, hawk, owl, turkey, quail, passenger pigeon, goose, duck, mallard, and teal were important bird resources for prehistoric residents of the study area. A large number and variety of snakes, frogs, turtles, fish, and mollusks also occur within this province.

II. A HISTORICAL PERSPECTIVE OF THE RUTHERFORD-KIZER SITE

Kevin E. Smith and Michael C. Moore

Castalian Springs (40SU14) and Rutherford-Kizer (40SU15) represent two of the larger Mississippian period towns that were established in Middle Tennessee. Both sites, located in what is now Sumner County, experienced some of the most extensively recorded excavations of the late nineteenth and early twentieth century. Castalian Springs received substantial recognition in the published literature due to the efforts of William Edward Myer, one of Middle Tennessee's first "professional" archaeologists (Myer 1894, 1917, 1928; Smith 1998). However, the Rutherford-Kizer site (located just seventeen miles west of Castalian Springs) managed to essentially vanish from the professional literature. This disappearing act was perhaps inevitable because the investigations were conducted decades earlier and sponsored by an institution far distant from the region, the Peabody Museum at Harvard University.

The Peabody Museum Expeditions to Middle Tennessee

Archaeology was barely beginning to emerge as a "scientific discipline" during the late 1800s (a transformation that would not be complete until the early 1900s). Tennessee archaeology remained largely "collecting" in the late 1800s. Local antiquarians Gates P. Thruston and Joseph Jones were prominent collectors of Middle Tennessee antiquities. Their interests and published results drew the attention of the Smithsonian Institution and the Peabody Museum of Archaeology and Ethnology, two institutions that had an immeasurable impact on the dawning of professional archaeology in the nineteenth century. Both institutions subsequently sponsored sizeable expeditions to Tennessee. These investigations generated extensive collections and notes of professional quality well beyond the standards of the time.

Frederic Ward Putnam

The Peabody Museum of Harvard University was founded in 1866 through the efforts of O.C. Marsh, a nephew of George Peabody and the prime mover behind Peabody's gift to Harvard. Jeffries Wyman, a famous natural scientist of the day, was the first Curator of the Peabody Museum. After Wyman's death in 1874, Frederic Ward Putnam (1839–1915) was appointed as Curator and held this position until 1909. Putnam was originally interested in zoology but became deeply involved in archaeology and anthropology after his appointment as Curator.

Putnam, called the "father of American archaeology" by some, has been most recognized as the "professionalizer of American archaeology." He brought the Peabody Museum to a position as one of the leading anthropological institutions in the United States. In addition, he helped found the Field Museum of Natural History in Chicago, the Department of Anthropology at the University of California (Berkeley), and the Anthropology Department of

the American Museum of Natural History. Putnam trained what we might describe as the first generation of professional archaeologists in the basics of "scientific surveying and mapping, digging, cross-section drawing, and the careful plotting and recording of finds" (Willey and Sabloff 1980). In 1887, Putnam received the first full time university position for prehistoric archaeology in the United States as Peabody Professor of American Archaeology and Ethnology at Harvard University. As a result, Harvard granted the first doctorate in prehistoric archaeology in the United States in 1894 (Trigger 1989:127–128).

As best we can determine, Putnam may first have seen and heard of the spectacular archaeology of the Cumberland Valley of Tennessee through Joseph Jones (1837–1896). Jones served as Health Officer of Nashville from 1868–1869. During those two brief years, he excavated and examined materials that would be later published in 1869 as "The Aboriginal Mound Builders of Tennessee" in the *American Naturalist*. This journal was founded and edited by Frederic Ward Putnam. Stephen Williams, Peabody Professor of North American Archaeology *emeritus*, has noted that this article and "a number of photos of [Jones'] collection" sent to Putnam in 1874 or 1875 probably stimulated Putnam's interest in the archaeology of the Middle Cumberland area (Williams 1986:6).

Putnam and John Wesley Powell (director of the Smithsonian Institution) toured important local sites and directed excavations while in Nashville for the September 1877 annual meeting of the American Association for the Advancement of Science. Putnam's work at five local sites (Fort Zollicoffer, Traveler's Rest, Bowling Farm, Brick Church Pike Mound, and Sellars) was soon published as *Archaeological Explorations in Tennessee* (Putnam 1878*)*. Other works on the "stone graves" and associated remains of Middle Tennessee were subsequently presented and published (Putnam 1882, 1883a, 1883b). Most of these articles were based on a few critical weeks of archaeology directed by Putnam in 1877. However, the investigations did not stop there.

Edwin Curtis(s)

During the late 1800s (and into the 1920s), both the Smithsonian Institution and the Peabody Museum found contacts during visits to Tennessee (and other states) who became "field men" to continue the process of acquiring collections. Most of these men were solid, reliable workers with no formal training in archaeology. These men did have some knowledge about how to find sites and artifacts. Their supervision was generally by mail, and the results of their expeditions varied considerably. Fortunately for us, Putnam apparently required his men to document their finds in some detail as part of their working arrangement.

Edwin Curtiss was a "field man" for the Peabody Museum between 1877 and 1880, and many of the Middle Tennessee specimens in the Peabody Museum were acquired through his efforts. Curtiss was not a native southerner, as he was born in North Lansing, New York on January 27, 1830 (Putnam 1881:12). He was a tailor by trade. In 1863, Curtiss went to Virginia in the employ of the Commissary Department, and then to Tennessee in 1864 in the same business. After the war, Curtiss settled his family in Nashville and was subsequently employed in a variety of positions:

> "…by the Government in the improvements of the Tennessee and Cumberland rivers. He was afterwards employed on the Mississippi levee, and in railroad and bridge building in various portions of the south and west…" (Putnam 1881:12)

Little information is available on exactly how Edwin Curtiss met Putnam, although it was clearly related to the 1877 meeting of the American Association for the Advancement of Science in Nashville. A receipt for $25 dated September 22, 1877 by Edwin Curtiss shows that he was first hired during that trip. Putnam appended a note to the receipt indicating that:

> Mr. Curtiss is to collect for the Museum by special arrangement made by FWP - he is to have $3.00 a day for his services and his travelling expenses and what he pays out for labor, boxes is to be allowed him on receipt of specimens with item bill. (Accession File 78-6, Peabody Museum Collections Dept., Harvard University)

At the beginning of this arrangement, Curtiss provided field assistance during Putnam's September 1877 explorations (Putnam 1878). Once this work was completed, however, the task assigned to Curtiss was to collect as many exciting artifacts as possible and ship them to the Peabody Museum:

> …I secured Mr. Curtis as my chief assistant, and he soon became a most valuable and reliable hand. On leaving Tennessee I arranged with him to carry on the work I had begun…he has since been for the greater part of the time at work exploring for the Museum and interesting others in its behalf. After a pretty thorough exploration of several of the ancient cemeteries and mounds in Tennessee, during which he opened several thousands of the stone-graves of that region, the contents of which are now in the Museum… (Putnam 1881:12)

Putnam described Curtiss as a man with "…a sturdy honest character…and a knowledge of handling his men…" (Putnam 1881:12). He was by all accounts a prolific and hardworking employee for the Peabody Museum, and kept fairly good notes for the time. Edwin Curtiss died suddenly, at his home in Nashville, of heart disease on December 6, 1880. Although his relationship with Putnam lasted just three years, it provided what is likely to be the largest well-documented collection of Mississippian artifacts in existence from the Cumberland Valley.

Curtiss Excavation at the Rutherford Farm

Edwin Curtiss conducted the initial recorded investigation at the Rutherford farm in December 1878 (see Appendix G). Although the source of his information is unknown, Curtiss was first told about the site on (Saturday) November 30, 1878. Curtiss and his hired hands went to the site on (the following Monday) December 2, 1878 and immediately began exploring:

> I heard of a large mound and earthworks in Sumner County last Saturday and I took my self and laboures out there on Monday morning and found that it was a fortified place of the people I was resarecting and went at it (Curtiss to Putnam, December 7, 1878; Accession File 79-4, Peabody Museum Collections Dept., Harvard University)

According to Curtiss, he paid his hired help 10 cents an hour, for a total of 80 cents a day. These wages appear to have been good money at the time:

> …I will account for every farthing spent I don't pay my men by the day I take from here I pay by the hour when in the field if they work eight hours I pay them 80 cts and at that rate I don't pay over that to the best hands I have…(Curtiss to Putnam, December 7, 1878; Accession File 79-4, Peabody Museum Collections Dept., Harvard University)

We have no information about the men hired by Curtiss to help dig at the Rutherford farm. These hands were undoubtedly local, and we know from other Curtiss letters that he hired both white and black men as labor.

Curtiss spent the first ten days or so of December 1878 digging the site under relatively mild winter weather conditions. Apparently the investigation was shut down when the elements turned quickly for the worse:

> …it is colder here than I ever saw it before last winter I could work all the time out of doors nearly I have not ben out to work since december the first to the tenth it has frozen up tight… ground has frozen 12 in deep ice has frozen 6 in thick on the ponds (Curtiss to Putnam, January 8, 1879; Accession File 79-4, Peabody Museum Collections Dept., Harvard University)

The Curtiss excavation at 40SU15 was over at this point, as he mentions his plan to work another site (with lots of mounds and graves) further down Drakes Creek toward the Cumberland River as soon as the weather improved.

Curtiss provides a narration of the site area that represents an invaluable source with which to compare modern site observations. He describes the site as:

> …a large mound and a chain of earth works encirciling the large mound and the smaller ones allso the works enclose about 15 acres and one half of the works can be traced by the eye and the plough has partially obliterated the ballance in the field there is two fine cold springs one on the east side and one on the west side the one on the east side is one hundred yards from the earth works or brest works as they ma be classed and the one on the west side is fifty yards from the line of works this was there vilage or camping ground evidently as there are circles and small mounds attached to them and there are graves in several of those mounds joining the circles and some on the rim or edge of the circles all of which I opened and explored. (Curtiss to Putnam, December *??*, 1878; Accession File 79-4, Peabody Museum Collections Dept., Harvard University)

A site sketch map by Curtiss enhances our understanding of his written observations (Figure 9). This sketch comprises yet another priceless record of site information for modern researchers. A large ("sacrificial") platform mound, several smaller ("grave") mounds, house circles, and probable stone box graves appear on the sketch map inside a bastioned palisade. The site area inside the earthwork was estimated to be "about 15 acres". Curtiss identifies 17 bastions along the palisade wall, and notes that large oak trees are growing on the earthworks. Also noted on the map are stone-box graves outside the earthworks.

The Curtiss sketch map has one critical error that must be corrected. The north direction indicated on top of the drawing is actually east. Drakes Creek flows in a southerly fashion *east*

of the site area, not north. Likewise, the “east side” reference (right side of drawing) is really the south side.

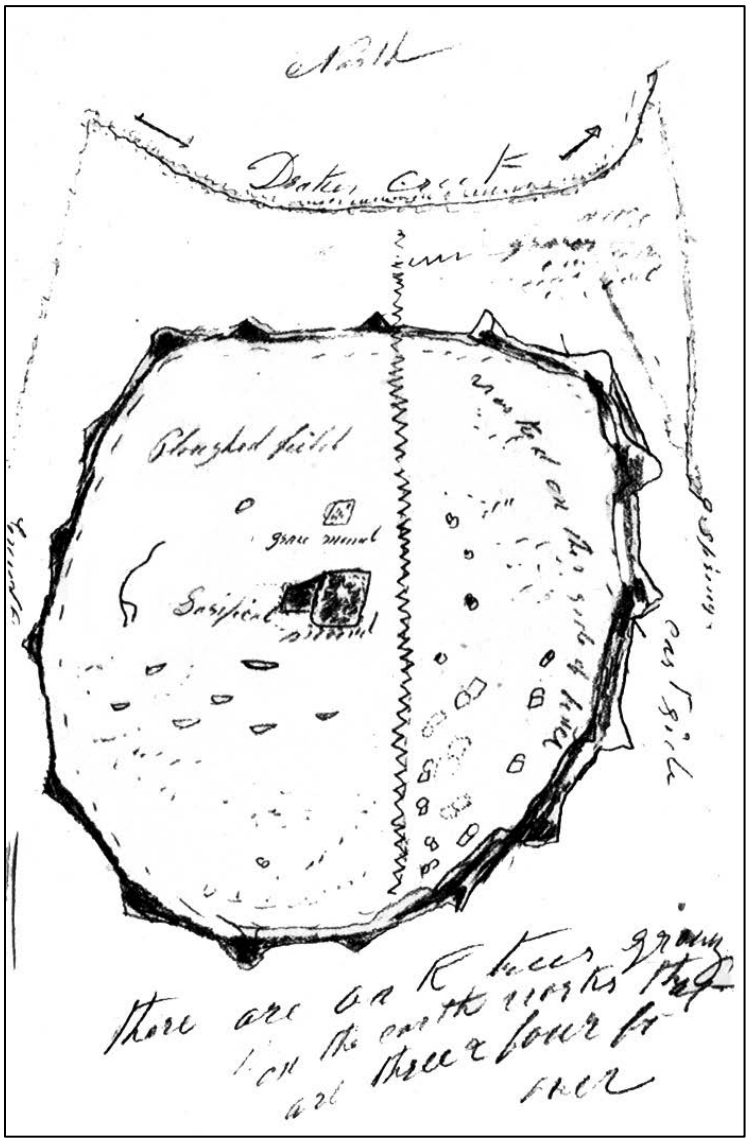

Figure 9. Curtiss map of “Rutherfords Farm,” 1878 (Accession file 79-4 Peabody Museum Collections Dept., Harvard University). *Note: north has been incorrectly assigned by Curtiss on this map. This direction is actually east.*

One very important reference point on the Curtiss sketch map is the fence row that divides the site area (north to south by Curtiss notations, but in reality east to west). This fence row is critical for modern archaeologists because it still exists today. Curtiss notes on the map that they worked on the south (corrected) side of the fence. For some unknown reason, they did not dig the “sacrificial” or “grave” mounds located north of the fence. Landowner permission may have been a factor, since the Rutherford family owned the site area south of the fence. Land north of the fence row was controlled by the Kizer family.

Curtiss and his crew made the most of their time on “Mr. Rutherfords farm”. His field notes indicate they dug 108 stone box graves (see Appendix G). The vast majority of graves (*n*=93) were inside the palisade. Another 15 graves were dug within a separate stone-box cemetery outside the palisade. These particular burials are noted as “graves” just outside the palisade along the southeast (northeast using Curtiss notations) corner of the site area.

Curtiss recovered both skeletal and artifactual materials during his “exploration” of the site.

> …I worked all the week and made some good finds I got twelve cranias and 8 pieces of potery…I have got a large image but it had been broken by the plow but I saved all the pieces but and that could not be found but it does not hurt or detract from its beauty or looks I have allso found a larg and fine lot of large beads and small one to one vary fine bone implement next I have found several worked shell or totems and fragments of copper one piece of lead ore or galena one large conk shell (Curtiss to Putnam, December 7, 1878; Accession File 79-4, Peabody Museum Collections Dept., Harvard University)

> …I have twenty cranias nearly as many jars or pots and some beautiful stones discoidal… whirls…I have got the largest image I have ever found but it was broken by the plough but I saved all the pieces I could find I can put your piece of potery in the shade of the one you marked 50 in the lebenon collection I found this one laying at the head of a grave…raised it up and thought what a prize I had found and it fell in nearly a hundred pieces… (Curtiss to Putnam, January 8, 1879; Accession File 79-4, Peabody Museum Collections Dept., Harvard University)

The Peabody Museum repository contains a variety of ceramic, lithic, shell, and copper artifacts from the site, as well as human remains. Inventories and detailed descriptions of these cultural materials are presented in Section XII.

Gates P. Thruston Reference

The only other early record of the Rutherford-Kizer site can be found in the works of Gates P. Thruston (1897), who recorded the following:

> A ground plan or map of the works on the Rutherford-Kiser farms, in Sumner County, near Saundersville, Tennessee, about twenty miles north-east of Nashville, as they now appear, will give a tolerably correct idea of one of these ancient forts.
>
> This work incloses about fourteen acres. The earth lines and smaller mounds in the cultivated field are nearly obliterated, but in the woodland they are well preserved. The chief mound near the center, nearly twenty-six feet high, has still its flat top platform, its sharp outlines and steep sides. It is about three hundred and eighteen feet in circumference, and is entirely artificial, having been constructed of earth excavated near its base. The small elevations represented on the plan are burial mounds, with stone graves radiating from the center. The mounds next in size were probably formed by the debris of the ancient dwellings. They are circular or elliptical in form, averaging about

> thirty feet in diameter, with the remains of burnt clay or ancient fire hearths in the center. At irregular intervals along the earth lines in the wood-land, angles of earth project about ten feet beyond the general line, indicating the locations of towers or rude bastions in the stockade or wall line. Some of them were doubtless protected openings or gateways. In the burial mounds have been found many fine implements and vessels of pottery. (Thruston 1897:32–34)

The reader has probably noticed that Thruston used the name Rutherford-Kiser instead of Rutherford's Farm for this mound site. As mentioned above, the Kiser name refers to the family that controlled the site area north of the fence row. To muddy the waters a bit further, Thruston spelled the family name Kiser with an "s", although archival research by the editors found the family name to be spelled Kizer with a "z".

Thruston also provides a site map with his text (Figure 10). This particular map (according to the postscript) was surveyed by W. H. Edwards, Esquire and drawn by Thruston himself. A date for the site rendering is estimated to be sometime during the (late?) 1880s since *Antiquities of Tennessee* was first printed in 1890.

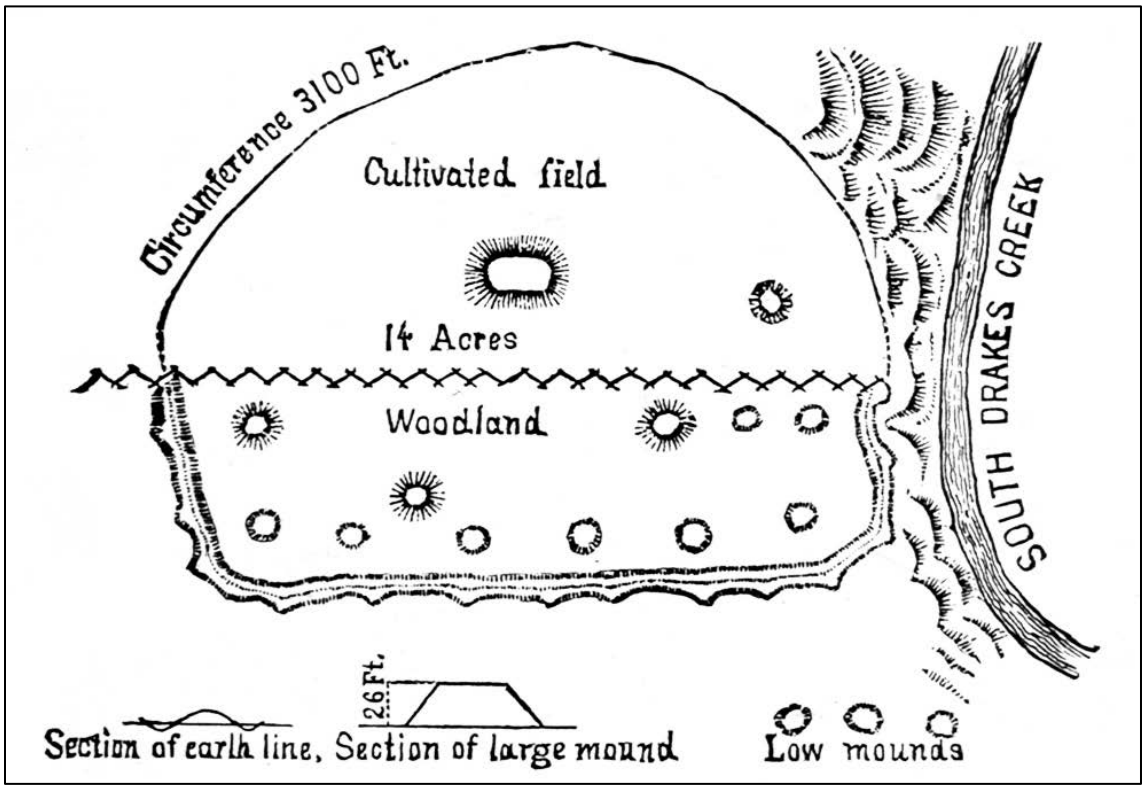

Figure 10. Thruston map of the Rutherford-Kizer site (r*eprinted from Thruston 1897).*

A Rediscovered Rutherford-Kizer Site

Putnam (1882) subsequently published information on a few of the more spectacular artifacts from the Rutherford Farm collections, but no substantive report of the excavations was ever completed. From 1879 through 1993, most of Rutherford-Kizer remained open

pasture and/or farmland. During those decades, many local relic collectors (some of whom might best be characterized by contemporary standards as looters and grave robbers) visited the site area. Numerous burials were dug across the site area, reportedly yielding such artifacts as human effigy water bottles, Matthews Incised jars, projectile points, sheets of mica, and Dover tools. A handful of these artifacts were subsequently donated to the Sumner County Museum in Gallatin. Unfortunately, the circumstances surrounding the recovery of the vast majority of these artifacts (or their current whereabouts) remain undocumented.

Modern excavations of Rutherford-Kizer were initiated by the Tennessee Division of Archaeology in 1993 in response to development of The Meadows, a residential subdivision. The "lost history" of Rutherford-Kizer was discovered as a by-product of research related to this project. Also, a 1996 publication by the Peabody Museum Press of an extensive volume on shell gorgets by Jeffrey Brain and Philip Phillips included excerpts from Curtiss' field notes and his detailed sketch map of the site. Armed with new clues and high hopes, Michael Moore and Kevin Smith traveled to the Peabody Museum in March of 1998 (and again in March 1999 and October 2002) under a grant from the Tennessee Historical Commission to document the Rutherford-Kizer and other Middle Tennessee site collections. A complete report on the Peabody Museum expeditions to Middle Tennessee was published in 2009 (Moore and Smith 2009).

Concluding Statements

This brief discussion of early work at Rutherford-Kizer should illustrate the need for artifact collectors to keep good records and provide for the permanent curation of their collections. Some people have criticized the Peabody Museum and other institutions for not fully publishing the results of those 19th century expeditions in Tennessee. However, few Tennesseans produced useful publications on archaeology until the 1940s. Local relic collectors of the 19th (as well as early to mid-20th) century generally kept few notes that can be used by modern researchers. Such artifact collections, if not dispersed by estate auctions or simply lost, are often given generic labels such as "artifacts from the Cumberland Valley."

Many of the sites investigated by Putnam and Curtiss have been severely damaged or destroyed by past as well as recent earthmoving activities. The good news, however, is that the notes, correspondence, and artifacts from these early Peabody explorations have been stored and protected in a professional fashion. Such high curation standards will permit some restoration of significant prehistoric communities that vanished long before modern archaeological evaluation was possible (such as Bowling Farm). We can also add substantially to our knowledge of sites that still exist today, including Rutherford-Kizer, Mound Bottom, Brentwood Library, Travellers Rest, Old Town, Gray's Farm, Gordontown, Sellars, Link Farm, and the Dover Quarry. Thanks to the very early professionalism of explorers from the Peabody Museum, artifacts from these sites are not simply "from a stone box grave" somewhere in the Cumberland Valley – they can be attached to specific site locations.

III. MODERN ARCHAEOLOGICAL INVESTIGATIONS

Michael C. Moore

By early 1993, at the time the Division of Archaeology first became aware of the proposed subdivision development, very little was known about the Rutherford-Kizer site area. The only information readily available was an early site map (Thruston 1897:32–34) and several artifact photographs from a local history book (Durham 1969:11–13). Additional bits and pieces about the site were gathered from discussions with local residents and relic collectors. These queries yielded some interesting facts, such as the removal of the platform mound in 1965 for yard fill. Another engaging tidbit of information was the surface (?) recovery of mica sheets in the late 1960s. A visit to the local county museum discovered several ceramic vessels and stone tools on display that were reported to come from 40SU15 (see Section XI). These new clues served to increase our artifact inventory, but did little to enhance our limited understanding of the site itself. As discussed in the previous chapter, there was no knowledge of the December 1878 work by Edwin Curtiss at this time.

1993 Reconnaissance and Testing Program, Division of Archaeology

The Division of Archaeology received approval from the developer to conduct a limited reconnaissance and testing program prior to the start of subdivision construction. This examination would provide the Division with an insightful foundation for such basic site variables as stratigraphy, feature types, material culture, and intrasite settlement pattern. The benefit to the developer would be twofold: (1) the program would comprise a no-cost archaeological assessment of the proposed subdivision; and (2) the program would document archaeologically sensitive areas as well as the likelihood of intact human remains. The developer assented to this proposal and even assisted with the initial site preparation.

A limited amount of archival work was necessary prior to fieldwork in order to research the Rutherford and Kizer family names, and verify the specific property they owned. This investigation revealed that the Rutherford family lived south of the fence row drawn in the early site maps (this same fence row forms the northern boundary of the Meadows subdivision development). The Kizer family (spelled Kiser in early site references) lived north of the fence row.

Grading action associated with the subdivision development was not scheduled to reach the site area until late spring of 1994. Given this timetable, the Division initiated a six-week survey and testing program in late September 1993. Most of the work was to focus upon the eastern site area since construction activity would impact this portion first. A small concrete monument was buried three meters south of the northern property boundary (fence row) and used as the 0-0 grid marker. A one meter by one meter test unit (Test Unit 1, S15 W5) was then excavated in 10 cm arbitrary levels to obtain preliminary stratigraphic information on the plowzone depth and possibility of intact midden deposits. This test unit defined a plowzone

layer ranging 30 to 35 cm deep. Between 30 and 35 cm, an uneven zone of probable intact midden was observed. This midden zone graded to subsoil between 35 and 40 cm below surface.

Controlled Surface Collection

The precise position of the small mounds and palisade line presented in Thruston (1897) was not readily apparent from walking over the site area in pasture. Farming activity had apparently deflated any earthworks that were visible during the late 1800s. Given the circumstances, a controlled surface collection was considered the most effective way to obtain clues regarding the location of significant site features.

With the site area in pasture, seventeen plow strips were established across the eastern site area to provide visibility. These strips (measuring approximately three m wide and between 90 to 100 m long) were spaced at 10-meter intervals and placed in an east to west direction. All plow strips were given a letter designation beginning with the northernmost strip (A). Each plow strip was subsequently divided into 10-meter sections, and assigned a number beginning with the easternmost section (A1, A2, etc.). All visible artifactual material was collected from each plow strip section (Figure 11). No restrictive time limits were placed upon the collectors. Visual observations of selected artifact concentrations within the plow strips (especially daub, limestone, and ceramics) were also noted in the field.

Figure 11. Controlled surface collection of east site area (October 1993), looking south.

Volunteers working with the Division examined a total of 153 plow strip sections. All artifactual material obtained during the surface collection was washed and subsequently analyzed by Division personnel. Density graphs were plotted for particular artifact classes and compared with the field observations (Figures 12–15).

The ceramic graph (Figure 12) indicated a significant concentration of this material along the northern project zone, with a second distinct grouping on top of the small knoll along the southeast site boundary. Figure 12 also denoted some horizontal movement of ceramic fragments into the swale that separated the northern project area from the southeast knoll. This movement was expected given the previous plowing actions and the slope angle.

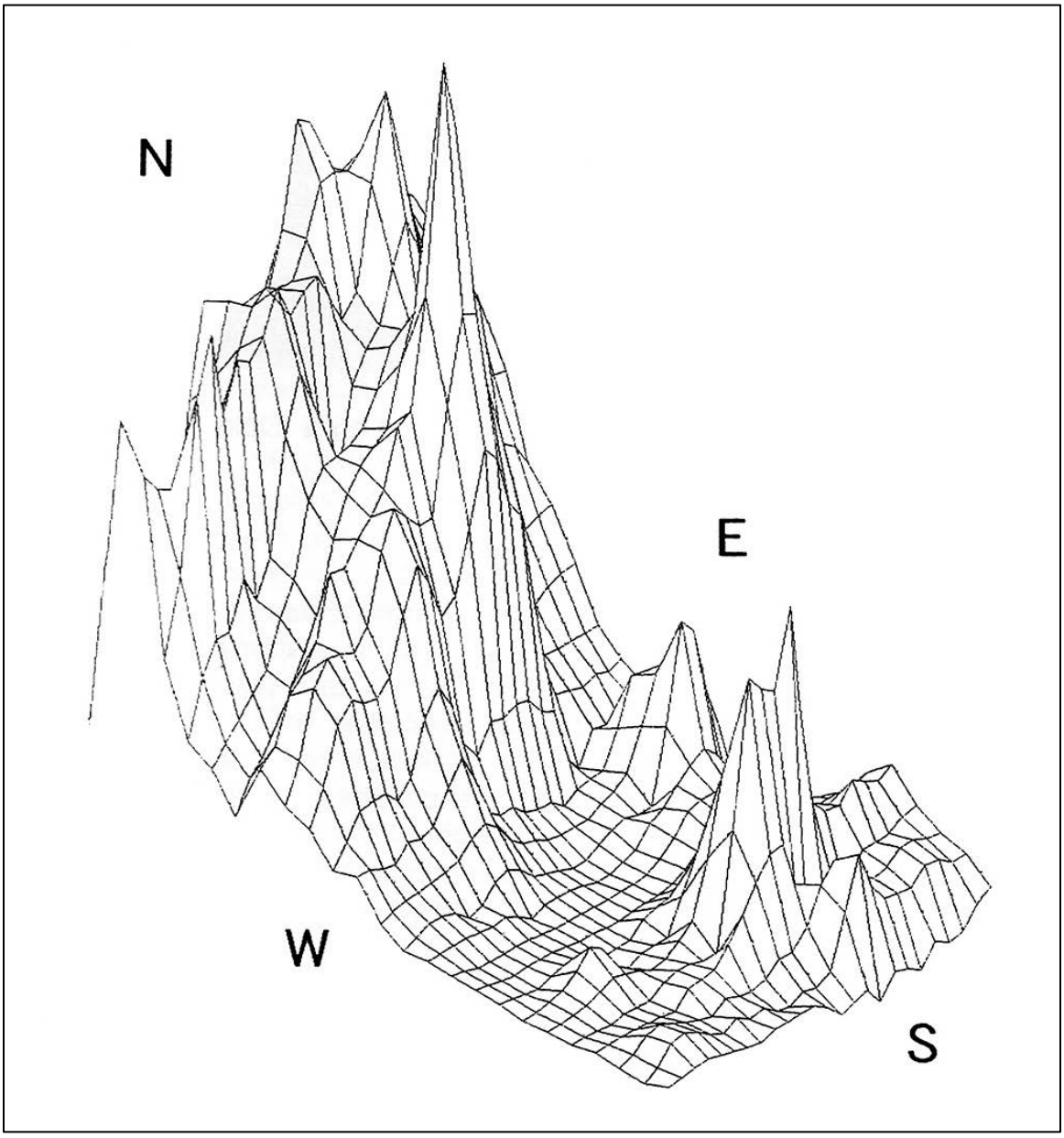

Figure 12. Density graph of ceramics recovered from controlled surface collection.

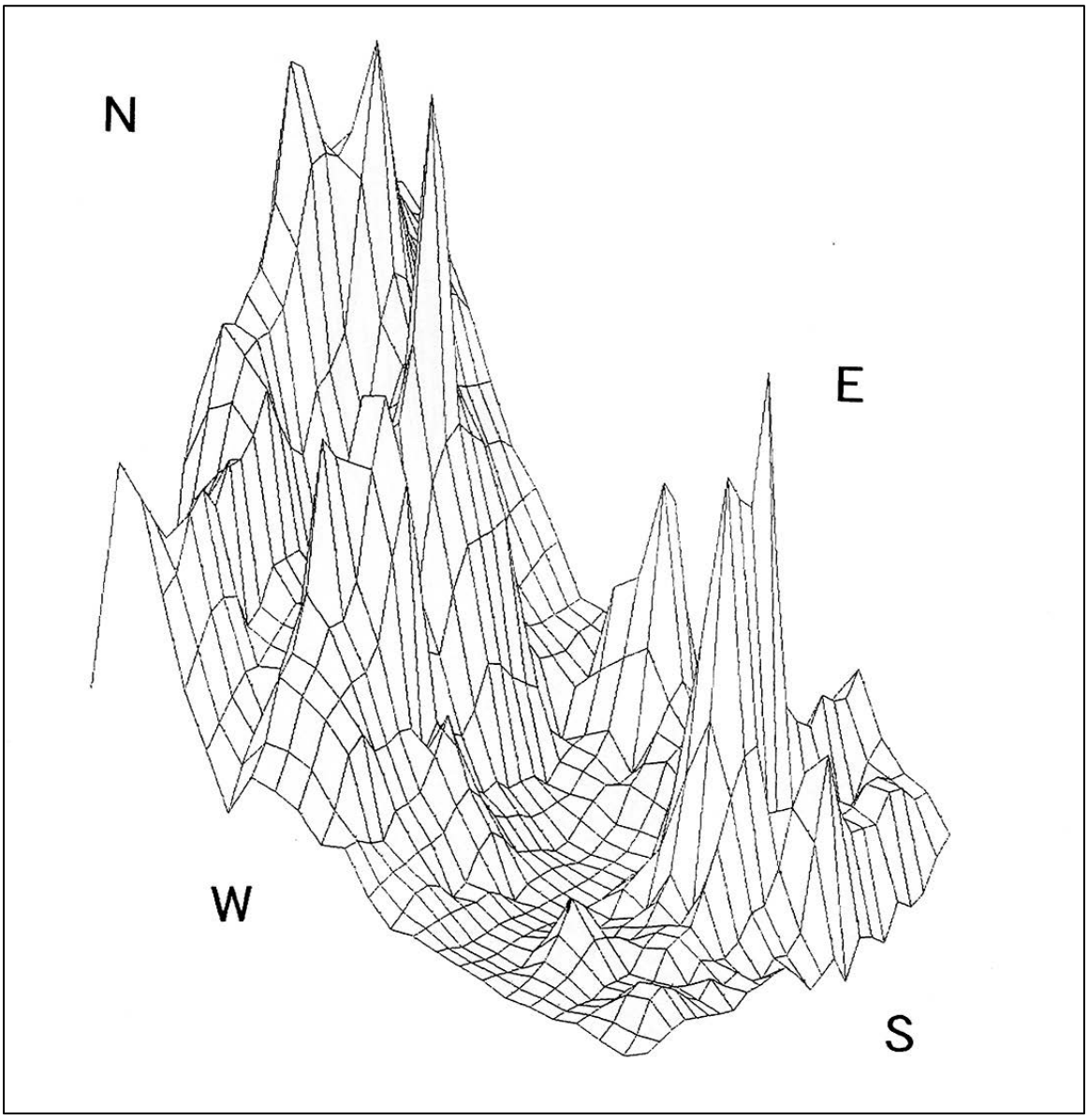

Figure 13. Density graph of lithics recovered from controlled surface collection.

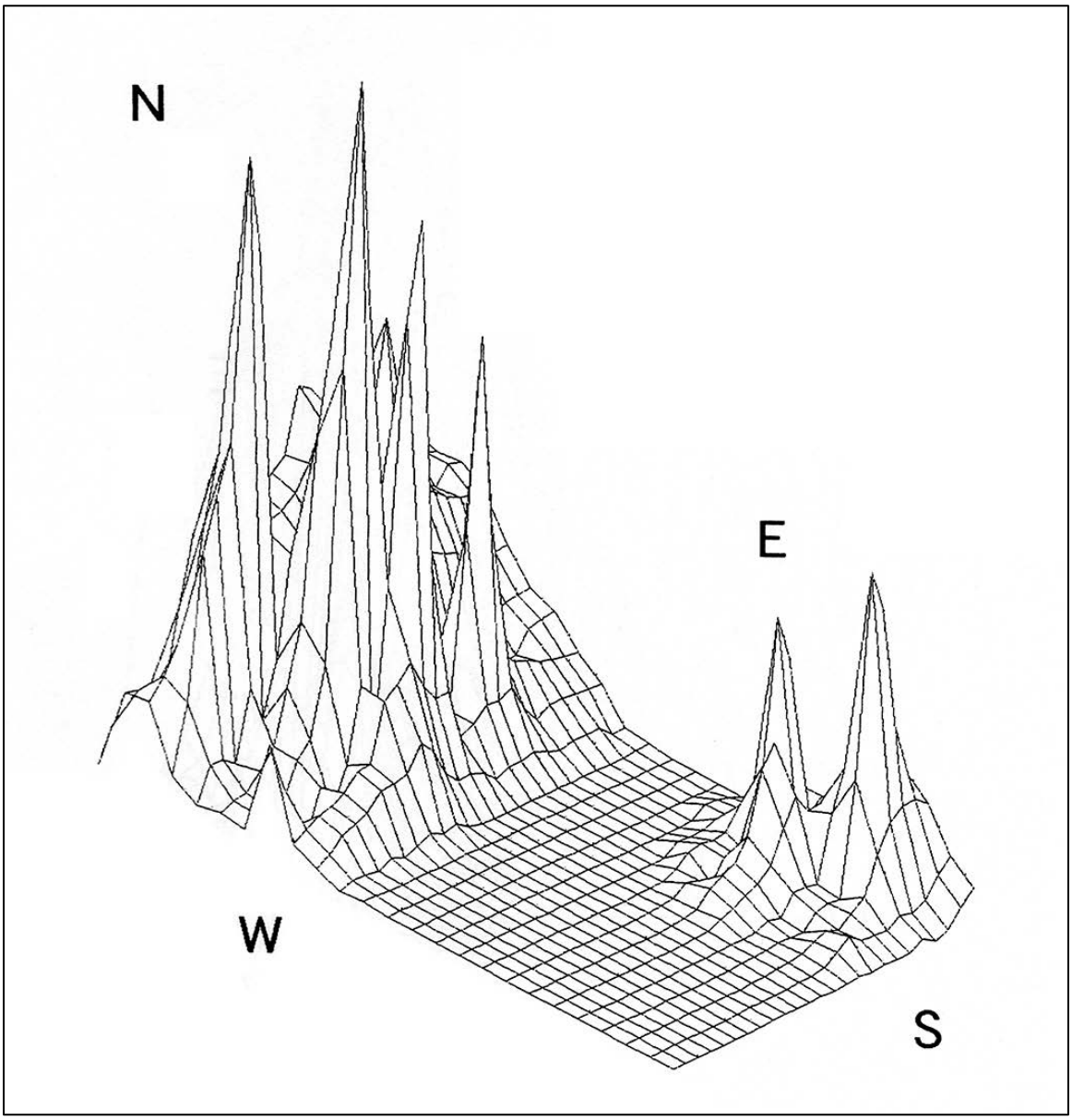

Figure 14. Density graph of bone (human as well as animal) recovered from controlled surface collection.

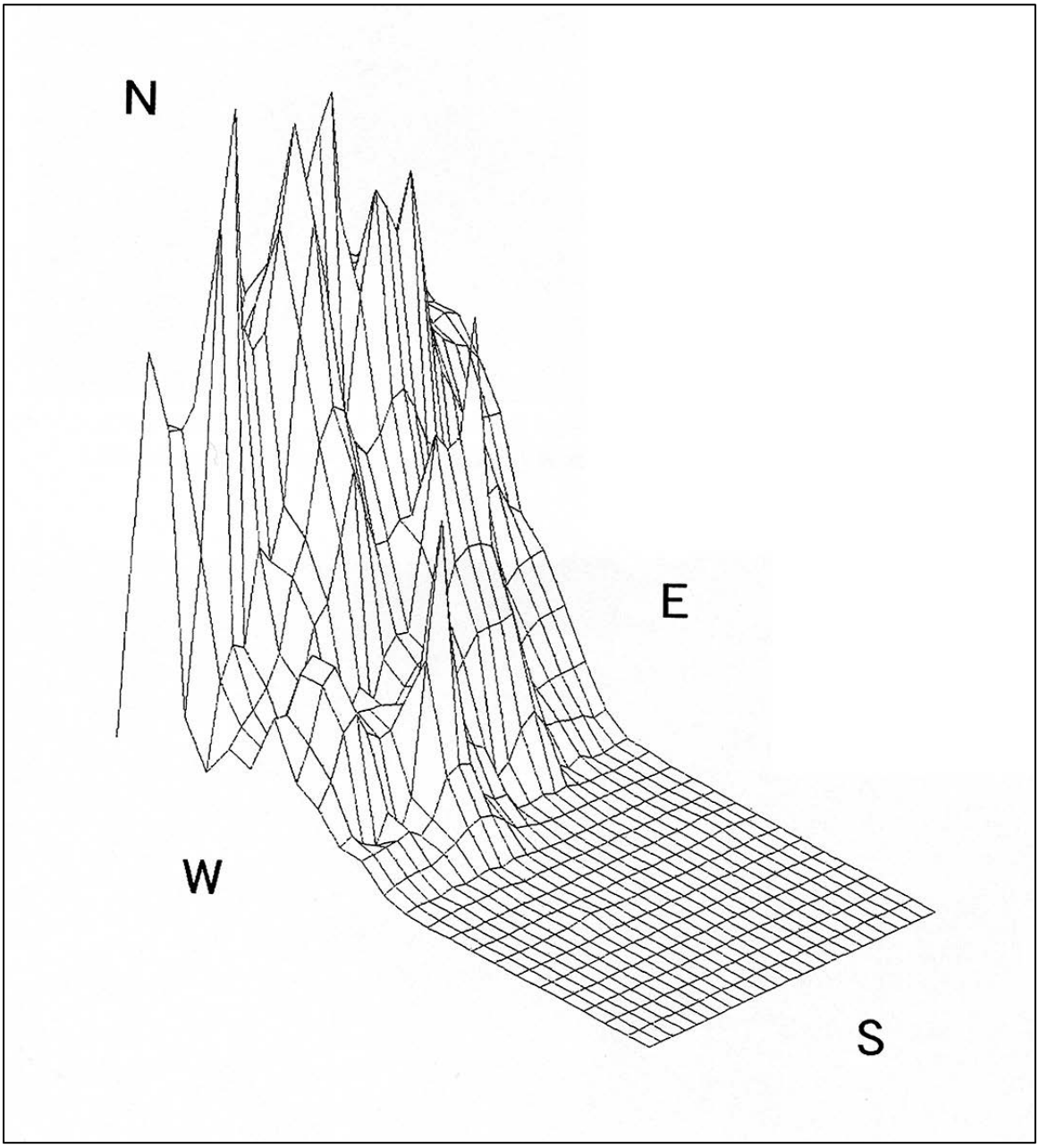

Figure 15. Density graph of daub recovered from controlled surface collection.

Figure 13 exhibited a lithic density pattern very similar to the ceramic distribution. Not surprisingly, there was also a significant presence of lithic material within the swale. Virtually all of this material was debris from tool manufacturing and maintenance activities.

Although somewhat similar to the distribution of ceramics and lithics, Figure 14 showed that bone was much more localized along the level surfaces within the northern and southeastern project areas. This graph included both human and animal skeletal elements recovered by the volunteers. The northern distribution of bone was defined by the presence of both human and animal remains, whereas the southeastern density projected almost exclusively human remains that originated from a stone-box cemetery.

Figure 15 was the most revealing density graph, as it displayed a very localized distribution of daub in the northern project zone. The absence of daub along the southeastern knoll provided us with an important clue for the habitation boundary.

The controlled surface collection results were successful in defining concentrated deposits of cultural material as well as the probable palisade boundary. The resulting density graphs were instrumental in the selection of areas for further investigation.

Test Excavations

The testing phase was denoted by the successive excavation of three small strip blocks (subsequently labeled A, B, and C) across the eastern site area. Each strip block was dug to sterile subsoil using a backhoe with a toothless (three foot wide) bucket. Removal of the plowzone and midden was controlled with thin cuts that were carefully monitored for the presence of intact features and human burials. The floor of each block was shovel-skimmed and then troweled to assess the presence of more subtle features. Work on a particular feature stopped once human remains were positively identified. All strip block mapping was performed using an alidade and plane table. Photography of these excavations included both black and white and color slide film.

Strip Block A covered an area of 16 square meters and was initiated 15 meters south and 10 meters west of the concrete marker (Figure 16). This particular area had exhibited a heavy concentration of limestone debris during the controlled surface collection. Excavation of this block was soon terminated after five stone-box graves were exposed (Figure 17). At least two of these burials appear to have been children based upon the size of the stone-box. No intact capstones were present on any of the graves. Prior plowing and/or looting activity had disturbed each of these burials. Trowels were used to better define the grave dimensions for mapping purposes. This block was photographed and immediately backfilled with soil after the mapping was completed.

Strip Block B was placed 30 meters south and five meters west of the 0-0 monument (Figure 18) based upon the significant amounts of daub recorded during the surface collection. Strip Block B was productive from the start as the initial backhoe cut uncovered a row of structure posts. Subsequent expansion of this block opened an area nearly 160 square meters in size (encompassing the previously mentioned Test Unit 1).

Figure 16. Division investigation of strip block A (October 1993), looking southeast.

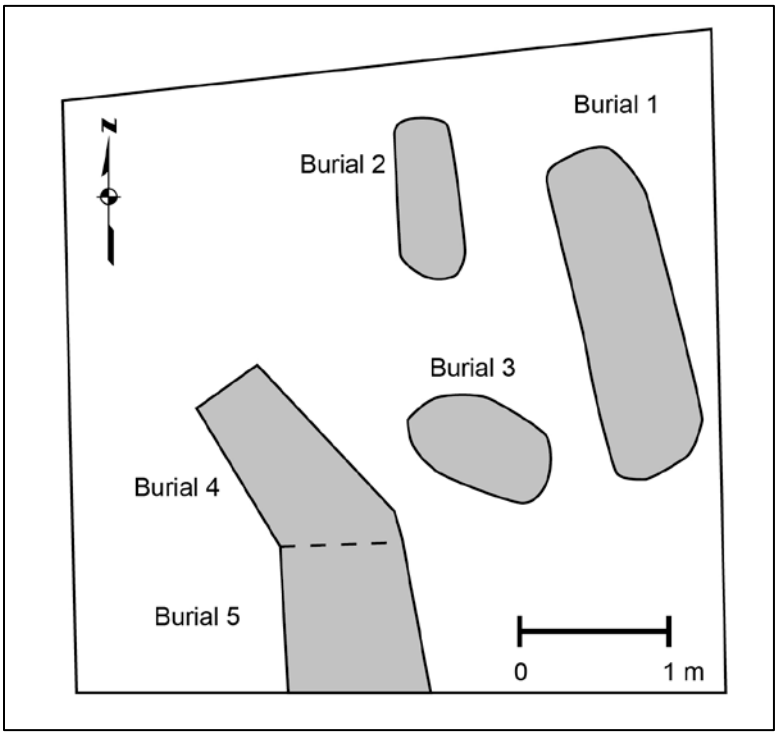

Figure 17. Map of strip block A, October 1993.

Figure 18. Division excavation of strip block B (October 1993), looking west.

A variety of prehistoric features were exposed in Strip Block B, including seven refuse-filled pits and numerous posts associated with a large structure (Figure 19). These non-mortuary features were excavated by trowel, with the fill screened through ¼" wire mesh. Waterscreen and flotation samples were taken from each refuse-filled pit as well as those postmolds that contained charred botanical remains. Standardized feature forms with plan view and profile drawings were completed for each refuse-filled pit. Due to time constraints, the information obtained from most postmolds was generally limited to horizontal and vertical measurements. Plan-view drawings were made for those postmolds with unusual characteristics (such as rock-filled posts).

Five human burials (comprising adults as well as children) were also present in Strip Block B. A variety of burial styles were represented, including three primary pit inhumations, a stone-box grave, and a bundle burial in a pit. The small portion of the stone-box grave that was exposed appeared to have an intact capstone. Each grave outline was carefully defined by trowel for more accurate mapping. As with the graves identified in Strip Block A, no skeletal remains were removed. These graves were covered over with soil once they had been mapped and photographed.

Strip Block C was intuitively placed 60 meters south and five meters east of the 0-0 monument. One refuse-filled pit comprised the only feature observed within this approximate 18-square meter block. This pit was removed using the same methods mentioned for Strip Block B. Excavation of Strip Block C was discontinued due to the sparse density of cultural features and material.

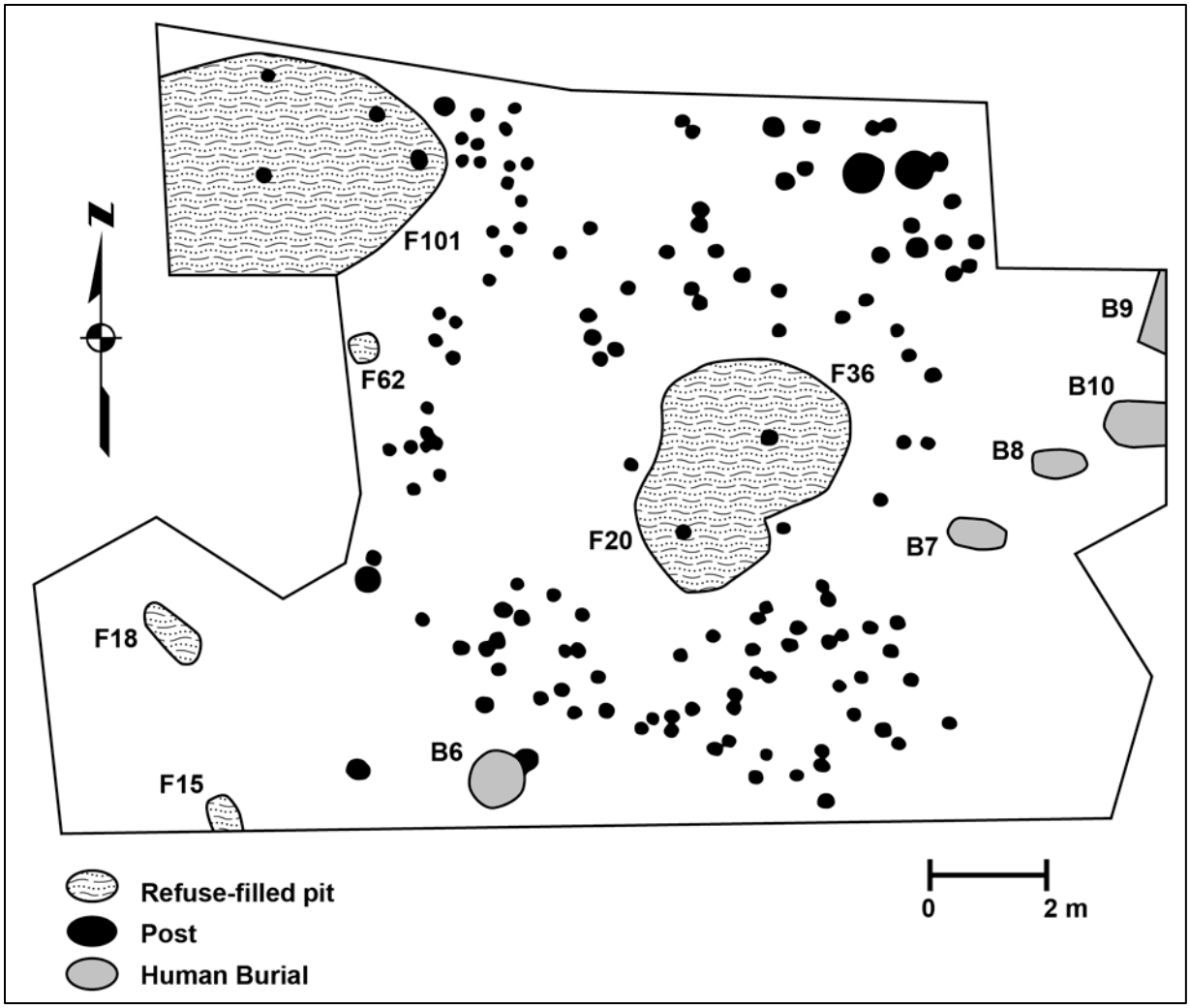

Figure 19. Map of strip block B, October 1993.

A limited search for the palisade line within the eastern site area was performed toward the end of the testing program. During this exploration, a total of eleven backhoe trenches were intuitively cut to subsoil based upon the surface collection graphs, field observations, and site topography. These expedient backhoe trenches were not uniform in length or dimensions.

The first trench (backhoe trench A) was placed along the east-central edge of the field perpendicular to the steep slope toward Drakes Creek. After the plowzone had been removed, a two-meter by one-meter section of exposed midden within this trench was excavated by trowel as Test Unit 2. This midden layer measured up to 15 cm in depth, which was substantially thicker than the midden observed within Strip Block B. This increased midden depth was likely a result of slope wash. Numerous artifacts of pottery, chipped stone, and bone were retrieved from Test Unit 2. Despite the promising location and abundance of artifactual material, no evidence of the palisade was recorded within the trench.

The next trench (backhoe trench B) was dug perpendicular to the gentle slope just northwest of the small knoll present within the southeast corner of the subdivision. This

particular cut successfully located a palisade trench that ran a somewhat southwest to northeast course. An eighteen-meter section of the palisade trench was eventually exposed in this location. Unfortunately, a more thorough examination of the palisade trench was not possible at that time.

Eight additional trenches (C–J) within the east site area failed to uncover any evidence of the palisade trench. At the time, these trenches were hurried attempts ("shots in the dark") to locate the palisade. Except for backhoe trenches C and H, these trenches failed to intersect the palisade route later suggested by backhoe trenches B and K.

One last backhoe trench (K) cut in the northeast site area (near the north fence row) revealed the palisade trench was now running in a north to south direction. A dense layer of ceramic sherds was present within the exposed midden zone of this backhoe trench. Based upon this result, a one-meter by one-meter test unit (Test Unit 3) was placed four meters west of the backhoe trench K. This particular test unit (located nineteen meters south and eight meters east of the 0-0 monument) was excavated to glimpse how the midden ceramic density inside the palisade line compared to the midden ceramic density immediately adjacent to the palisade line. To make this test comparable, only the midden zone of Test Unit 3 was screened for artifactual material. This very limited examination found the interior midden density to be much lower than the midden density along the palisade line.

The conclusion of the Division's six-week evaluation program was marked by the placement of three additional backhoe trenches (L, M, N) in the west site area. These cuts (one bucket wide of variable lengths) were intended to provide a quick impression of the likely presence of intact cultural resources. As anticipated, prehistoric features (postholes and refuse-filled pits) were exposed in all three trenches. There was no attempt to remove any of these features, as the goal was to document their presence.

By mid-November 1993, the developer was well aware of the Division results, and that intact archaeological deposits were present across the entire site area. Of more legal importance, however, was the explicit documentation of human burials within an area to be destroyed by proposed construction activities.

1993 Monitoring of Topsoil Removal, Division of Archaeology

In late November 1993, a small area along the south-central site margin was selected for topsoil acquisition. This action represented the first earthmoving activity associated with subdivision construction to impact the site area. Due to the previous excavation results, the developer requested that the Division of Archaeology monitor the topsoil removal for any human burials that might be disturbed. Several bulldozers were used to remove only the plowzone layer of soil. No deep cuts into the midden or subsoil were made at this particular time. Division personnel observed this plowzone removal and recorded one cluster of four stone-box graves (Figures 20 and 21).

Figure 20. Division recording of burials exposed by topsoil removal (November 1993), lot 78 area, looking west.

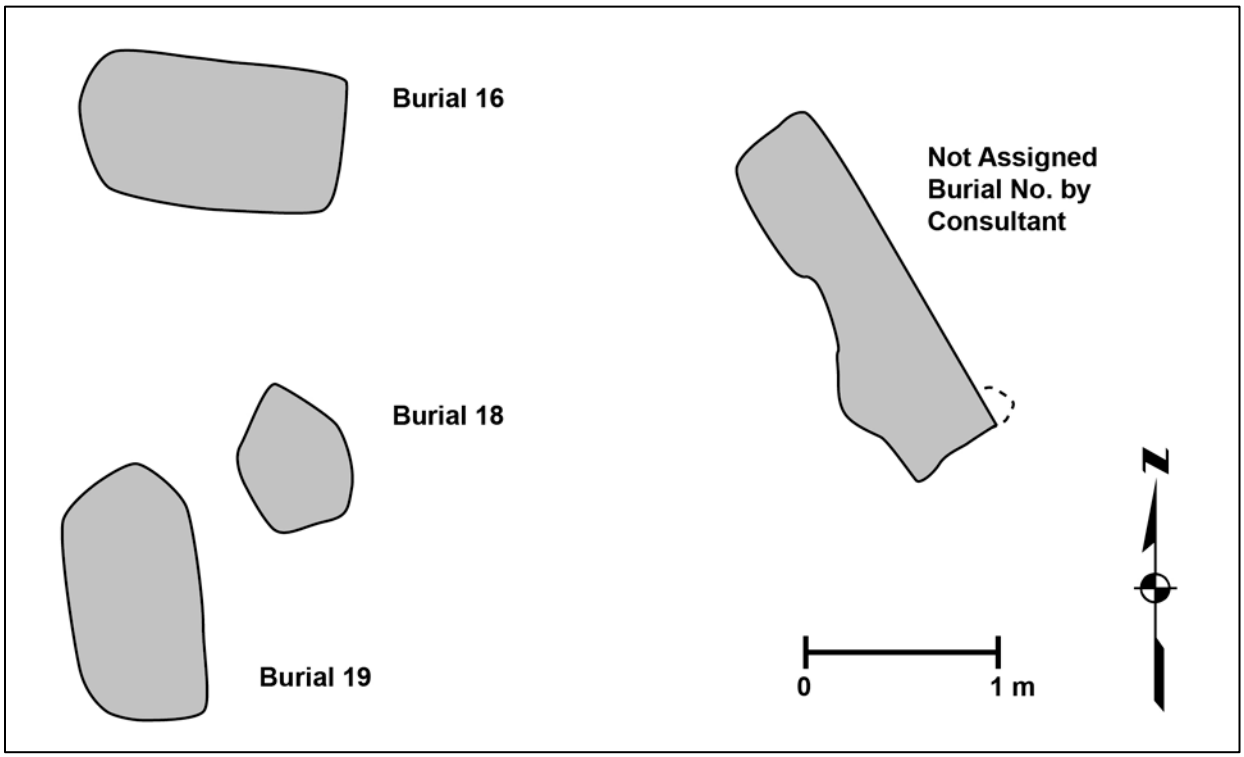

Figure 21. Map of burials uncovered by topsoil removal (lot 78 area), November 1993.

This feature cluster was immediately marked with flags as off-limits for further earthmoving activity. The area was further cleared with shovels and trowels for better definition of the grave dimensions. Each burial was mapped and photographed, but no skeletal remains were removed. Upon completion of the documentation, this cluster was covered over with a substantial amount of soil and marked to avoid any additional construction disturbance.

1994 Summer Site Investigations

Construction activity continued in other sections of the subdivision (away from the 40SU15 site area) through the winter and early spring months of 1994. In June 1994, a private archaeological consulting firm was hired to identify the location of all human burials within the site area to be impacted by construction. This investigation was initiated by plowing the entire site area and conducting a surface reconnaissance for evidence of burials and other cultural features. The plowing activity (conducted by the developer for the consultants) was successful in exposing abundant grave and feature locations. One major problem during this particular consultant investigation was the disturbance of intact burials and features by plowing too deep (Figure 22). This incident and similar occurrences throughout the Rutherford-Kizer project were subjects of continuous, and at times heated, debate between the Division of Archaeology, consultant, and developer.

Figure 22. Unusual coffin of ceramic sherds exposed by private consultant and later investigated (but not removed) by Division personnel, summer 1994.

Following the surface reconnaissance, the consultant excavated five backhoe trenches within the north-central site area to evaluate the suspected presence of concentrated burials and other features (the use of a toothed bucket for this excavation was another source of discussion between all parties). These explorations not only confirmed the presence of intact burials and features, but also potentially identified one of the small burial mounds shown on the 1897 site map. Due to the large number of burials uncovered after just a few days, the developer and consultant agreed to suspend the investigation and fill the backhoe trenches until another strategy could be devised.

Initial grading activity for the primary subdivision roads had begun by this time, uncovering numerous archaeological features (see Figure 2). A number of stone-box graves (adult as well as children) were among the features exposed in these road cuts. All burials uncovered by the road grading activity were topped by a substantial amount of fill dirt to discourage looting by relic hunters or other "interested parties". Non-mortuary features, including refuse-filled pits and postmolds, were flagged by the consultant and left alone for later exploration. These particular features were generally not covered by the consultant, but rather left open to the elements.

Division of Archaeology personnel conducted surface collections of the plowed site area on a routine (near daily) basis throughout the summer of 1994. Features exposed within the initial road cuts were also examined by Division archaeologists. These site visits also served as inspection tours to assess any vandalism or inadvertent construction damage. Prior to the summer, the site area had been isolated from the rest of the subdivision development. As construction activity approached the site, more local residents and construction workers became aware of an archaeological site in the field next door. Most people were merely curious, picking up an artifact here or there for a closer look. But others began to take a more direct interest in what was beneath the surface. The developer took an active role in keeping people away from the site area during and after work hours.

1994 Burial Removal

The 40SU15 site area generally remained off-limits to most construction activity over the late summer and early fall months of 1994 (aside from some occasional roadwork). During that time, the Tyrees received approval for a redesigned subdivision plan that excluded the archaeologically rich north-central portion from development (see the large greenspace in Figure 2). In September 1994, the Tyrees petitioned the local chancery court for an order to legally remove burials from selected house lots that were likely to yield intact human remains. This order was granted in October 1994.

The private consultant was brought back to the site in November 1994 to locate and remove all human skeletal remains from seven lots (74–80) immediately adjacent to the north-central greenspace. The developer's legal obligation was restricted to the removal of human graves within the selected house lots. Non-mortuary cultural resources exposed during the search for burials would not be protected under the court order. The Division of Archaeology

requested permission from the Tyrees to record non-mortuary features revealed during the consultant's search for burials. Permission was given for the Division to be on-site for the duration of the removal, although subdivision construction activity would begin as soon as the graves were extracted. Thus, during November and December 1994, two different archaeological entities conducted salvage investigations of the affected site area with mutually exclusive goals to achieve. The consultant would first strip the site area by lot in search of graves, and remove any that were found. The Division would then examine the stripped lot surface to map any exposed non-burial features.

The consultant burial removal proceeded with each lot stripped to sterile subsoil using a backhoe with a three-foot wide bucket. Consultant representatives monitored removal of the overburden and flagged potential graves for additional investigation. Stone-boxes were easily identified as isolated features (usually inside structures) and in clusters. Pit inhumations were a bit more complicated to define, as one-half of every pit feature exceeding 30 cm in width was excavated by trowel (by the consultant) to determine if human remains were present. Features without evidence of burials were given no additional consideration. Basic archaeological techniques were used to expose and remove the skeletal remains. Standardized burial forms were minimally completed with little to no photographic documentation. The consultant did not maintain a grid map of the burial locations. All removed skeletal remains and artifacts were placed in labeled boxes and transferred to the Division of Archaeology for analysis.

Nearly all of the features mapped by the Division were exposed in lots 74, 75, and 76 (see Figure 3). A substantial portion of lots 74 and 75 had been severely disturbed by an early road cut associated with the initial subdivision plan. Unfortunately, all of the features (including removed burials) uncovered by this road cut were destroyed by construction activity before they could be mapped by Division personnel. Also, lots 77, 78, 79, and 80 were apparently examined for graves very early in the removal process, with the few previously identified burials removed in an expedient manner. The four burials recorded during the November 1993 topsoil removal were included in lot 78. Immediately after the burials were removed, bulldozers moved into lots 77–80 and subsequently destroyed the non-mortuary features prior to Division inspection. This loss of information was really unfortunate since we now know a substantial portion of the palisade trench was present within this area. Structures and refuse-filled pits were probable casualties as well. This type of incident, commonplace under rescue conditions, illustrates the most frustrating aspect of salvage archaeology.

Structures, refuse-filled pits, and postmolds were uncovered by the search for burials in lots 74–76. Two distinct palisade lines (one trench and one post) with bastions were also revealed. Virtually the entire Division exploration was focused upon mapping these bared non-mortuary features, as well as the burials identified and removed by the consultant. As a lot was stripped, Division personnel examined the surface for evidence of cultural activity. In some lots, extensive areas were shovel-skimmed to search for additional features not readily evident from the burial removal work. Features subsequently determined to be cultural were then flagged and given a field number. Each feature was cleaned by trowel to document its morphology and probable function. Similar to the 1993 field session, each feature was mapped using an alidade

and plane table. All maps were tied to lot corners established by the developer. Plan-view measurements were taken for all features.

Very few features were completely excavated due to the limited window of opportunity. Nearly all digging was confined to the recovery of waterscreen and flotation samples from features with the potential for yielding significant botanical and/or faunal remains. The consultant personnel conducted a preliminary examination of most refuse-filled pits in search of human remains. However, few notes were maintained from these exams.

Personnel with the archaeological consultant removed a total of 54 graves from lots 74–80, with the majority from lot 76 (Figure 23). A final check by the Division of Archaeology in late December 1994 recorded two additional graves within lot 76. One grave consisted of a pit inhumation (child). Of considerably more intrigue, however, was the adult stone-box (Burial 65) found inside the palisade trench. This fortuitous discovery mandated that the entire trench within lot 76 be examined further for additional graves. Using a three-foot bucket, the developer excavated the palisade trench through the subsoil. No other graves were found within the trench. However, this excavation yielded details of the palisade construction that otherwise would have never been discovered. Division personnel used standard archaeological techniques to exhume both burials. Standardized burial forms were completed for both graves. These burials were documented with black and white, and color slide photography. All skeletal remains were transferred to the Division laboratory for processing and analysis.

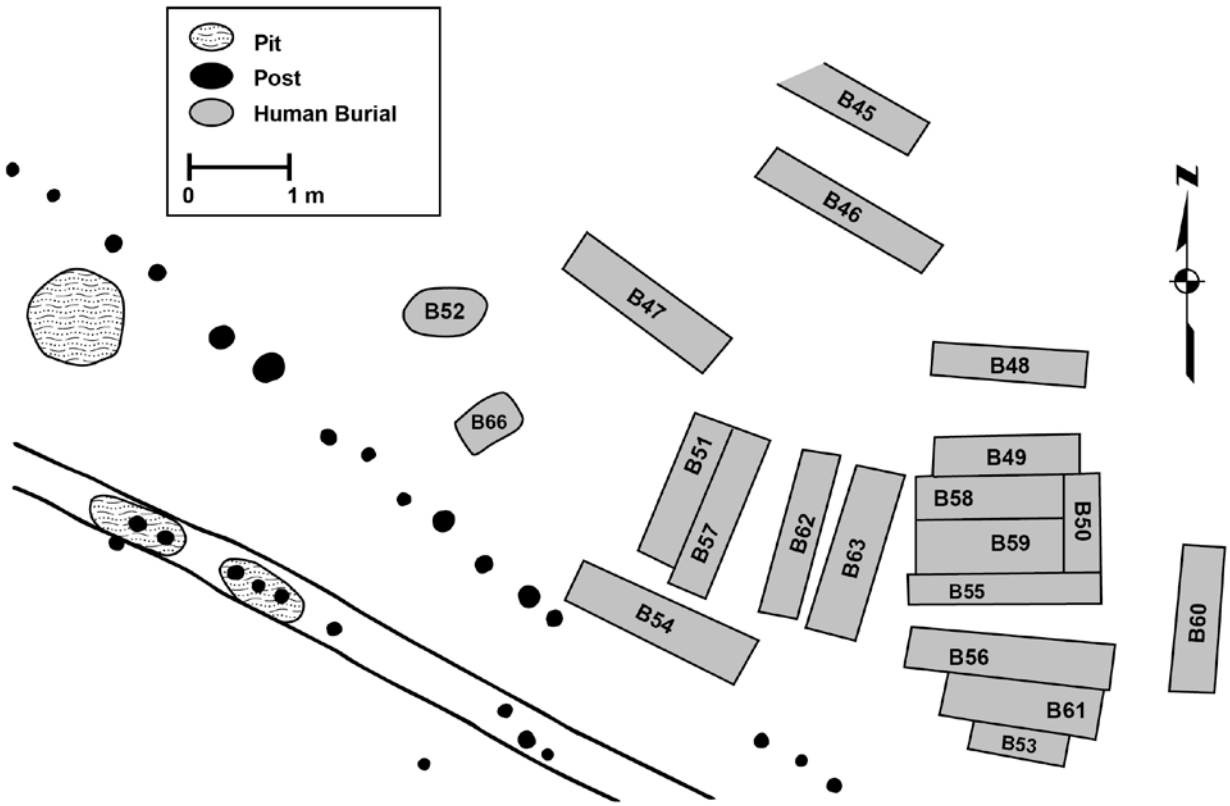

Figure 23. Cluster of stone-box graves in lot 76 (probable burial mound), November and December 1994.

1995 Burial Removal, Division of Archaeology

Construction activity began in earnest soon after the last lot (76) was stripped and burials removed. Division personnel continued to perform intermittent surface inspections throughout the winter and spring of 1995. In June 1995, the Division was requested by the developer to remove graves found within lot 85 near the southeast corner of the site area. This particular lot was immediately north of the second greenspace established by the revised subdivision plan. Substantial evidence for human burials had been previously observed within this greenspace, such as limestone slabs, human bone fragments, and surface depressions. The Division agreed to conduct this removal with the provision that all non-mortuary features uncovered during the search for burials would be excavated and mapped.

Figure 24. Division removal of burials in lot 85, July 1995.

Prior observations during the Rutherford-Kizer project had indicated that the southeast site area contained an approximate 30-cm deep plowzone but no intact midden deposits. The burial removal program was initiated by shovel skimming this plowzone layer (severely disturbed and partially removed as a result of initial grading activity by the building contractor) to sterile subsoil (see Figure 4). Division personnel limited the number of exposed graves in lot 85 to just a few at any one time (Figure 24). In this manner, the potential for burials being vandalized was significantly reduced. All non-mortuary features were flagged for additional investigation after the removal was completed. As the investigation progressed, it became

readily apparent that the graves and other non-mortuary features were concentrated along the southern lot boundary.

From late June through July 1995, a total of 27 individuals (from 25 graves) were exposed and subsequently removed (Figure 25). Closer inspection of these graves determined that most had been substantially damaged by farming and/or relic collector activity. Only one completely intact stone-box (adult) was found. Two additional stone-boxes with small children were missing the cap stones, but the skeletal remains and associated grave goods were otherwise undisturbed. All skeletal remains were uncovered and removed using standard archaeological techniques. Standardized burial forms were completed for each interment. Grave locations were mapped by alidade and plane table, and tied in to established lot corners. Once removed, the remains were placed in appropriately labeled bags and taken to the Division laboratory for processing and analysis.

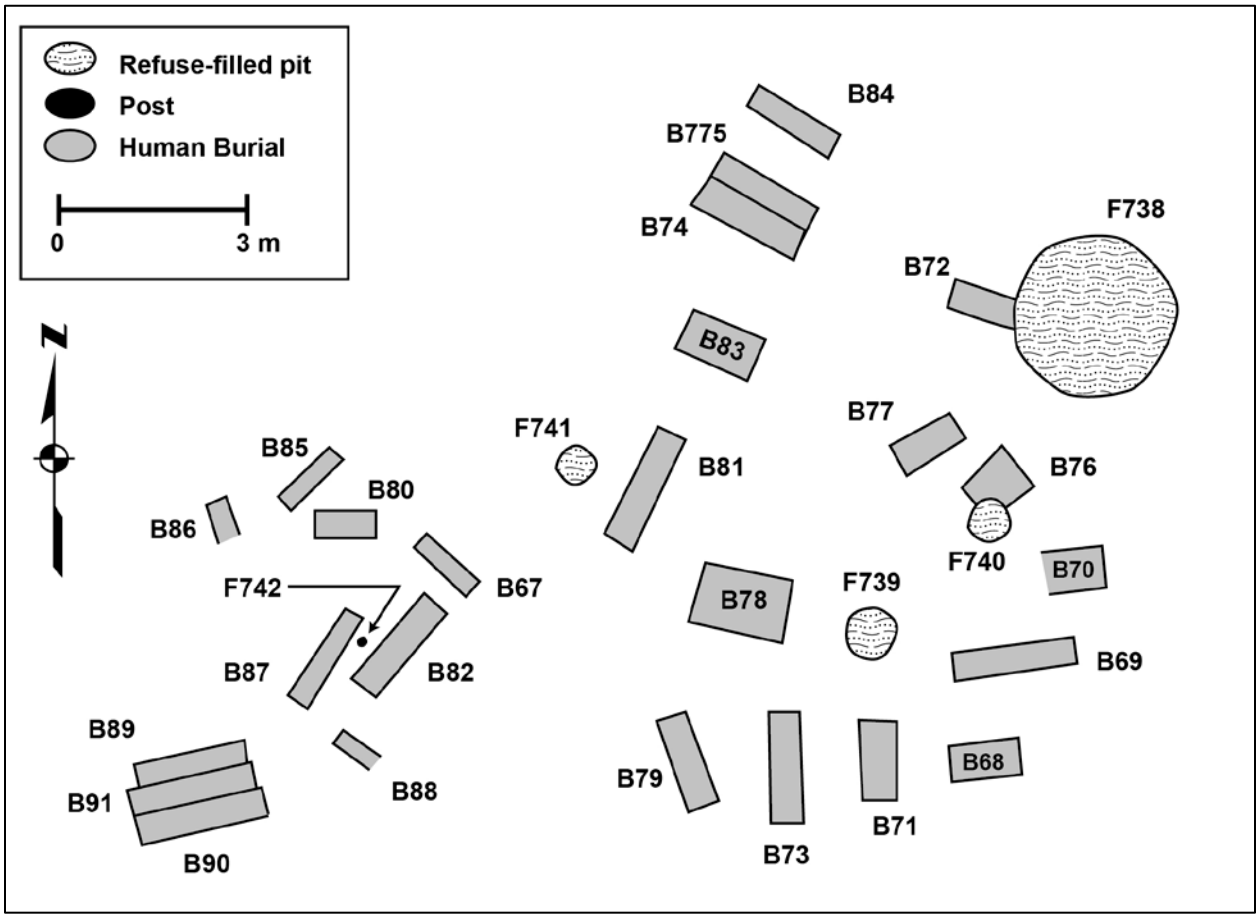

Figure 25. Map of lot 85 burials and non-mortuary features, July 1995.

Three refuse-filled pits (Features 739–741) and one very large burned pit (Feature 738) were uncovered during the search for burials in lot 85 (see Figure 25). Also exposed was a biface cache (Feature 742) just northwest of Burial 82. Each of these non-mortuary features was completely excavated by trowel. Feature fill (except for waterscreen and flotation samples)

was screened through ¼" hardware mesh. All cultural resources from lot 85, non-mortuary features as well as human burials, were photographed with black and white and color slide film.

1995 Lot 73 Investigation, Division of Archaeology

Division personnel resumed intermittent site inspections upon completion of the lot 85 burial removal. These examinations were routine and relatively uneventful until the first week of September 1995, when archaeological features were observed near the northwest corner of the subdivision. Scraping activity along the rear of lot 73 had exposed numerous postmolds associated with the palisade trench (Figure 26). Three pit features and a structure were also uncovered within the lot boundary (Figure 27). Fortunately no human skeletal remains or other evidence of graves were observed within the lot area. Following the same protocol as before, these cultural resources were mapped by alidade and plane table and tied to established lot corners. On-going construction activity allowed only minimal examination of the pit features and posts. Flotation samples were obtained from several palisade postmolds with visible floral remains. Most of the available time was spent uncovering and mapping the structure.

This brief investigation was exceptionally productive in refining the primary palisade route along the western site boundary. Grading activity along the extreme back side of lot 73 did not remove enough overburden to expose the last few meters of palisade trench just before intersecting the fence row. However, the palisade route was clearly defined for future research when impending development threatens the site area across the fence row. The lot 73 investigations comprised the last archaeological assessment conducted within the Rutherford-Kizer site area as part of the subdivision development.

Figure 26. Division mapping of palisade trench in lot 73, September 1995, looking north.

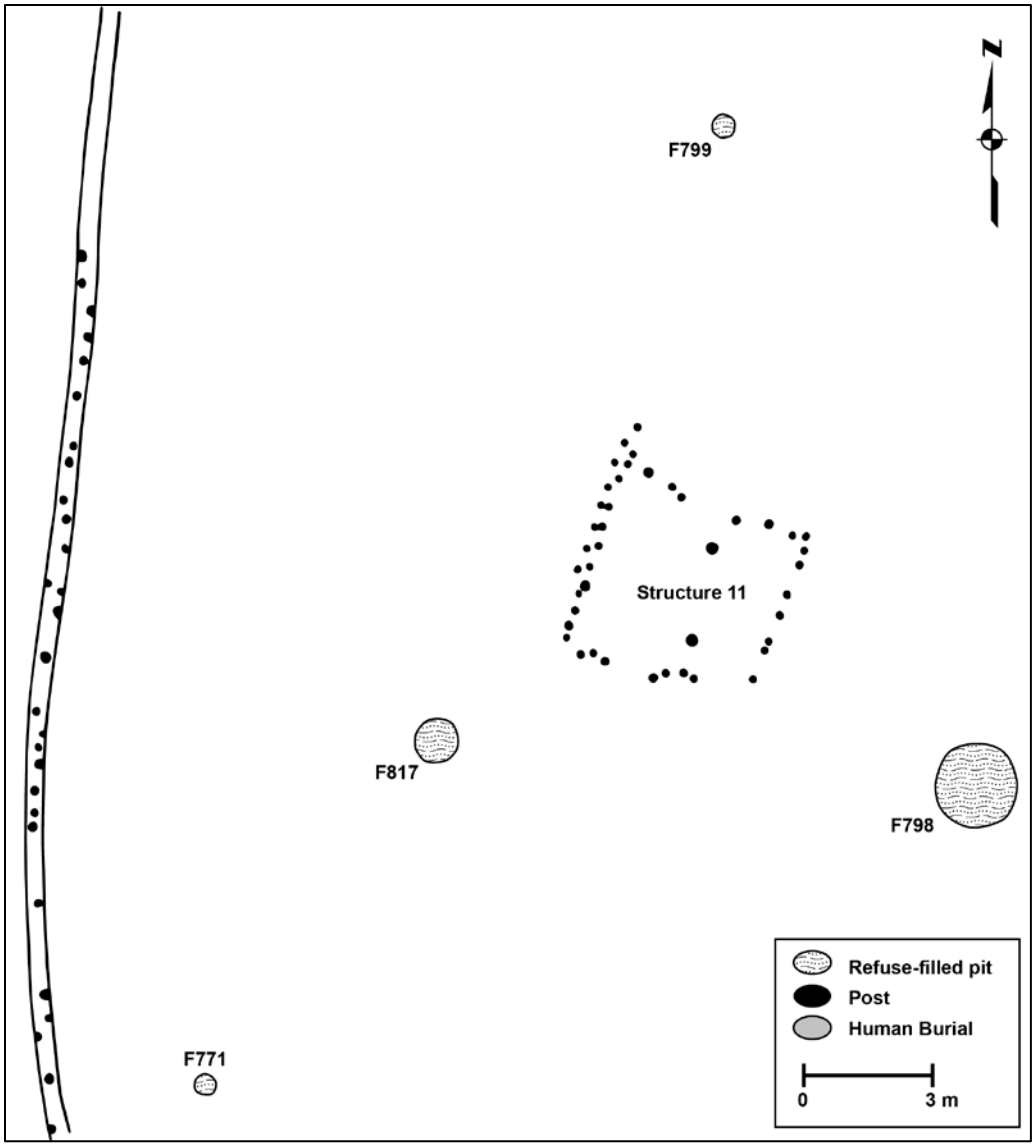

Figure 27. Map of lot 73 features, September 1995.

Completion of the Meadows Subdivision

The Division of Archaeology continued to conduct sporadic site visits throughout the remainder of 1995 to assess the impact of the Meadows subdivision upon the greenspace areas. Several minor problems were observed, but quickly remedied by the developer. One problem was the exposure of at least one burial within the greenspace area adjacent to lot 85. This burial had been exposed by erosion of the steep slope immediately adjacent to the road. Upon notification by Division personnel, the Tyrees placed fill over the affected area.

By the spring of 1996, the need for official site visits by Division personnel was substantially reduced due to the stability of the subdivision and greenspace areas. Figure 28 presents a site map of all archaeological features recorded during the 1993–1995 Division investigations at the Rutherford-Kizer site.

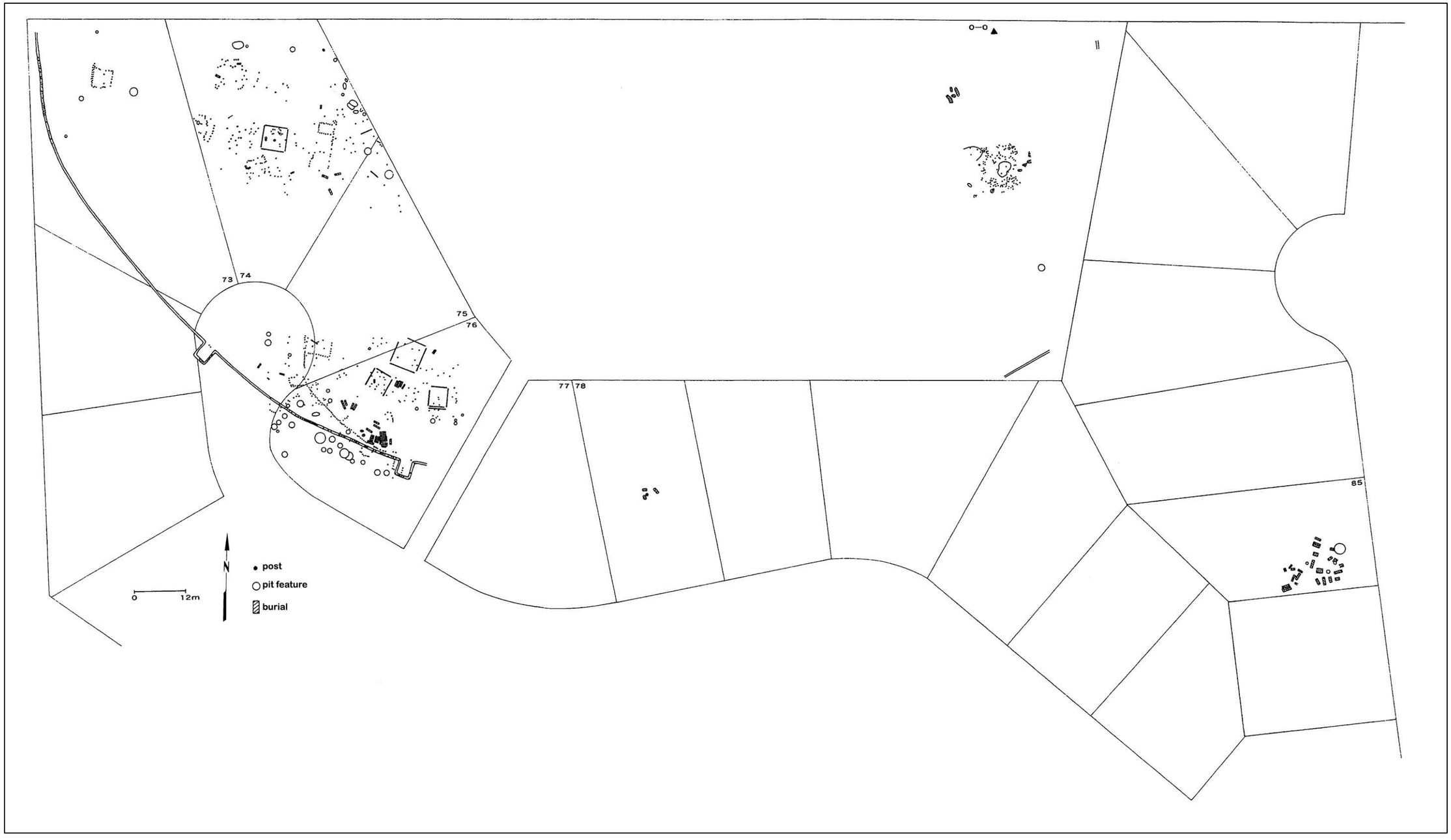

Figure 28. Map of archaeological features exposed during the 1993–1995 excavations.

IV. NON-MORTUARY FEATURES

Michael C. Moore

Palisades

Two separate palisade lines with bastions were exposed over the course of the Rutherford-Kizer project (Appendix C). Both palisades were extensively documented during the 1994 burial removal within lots 74, 75, and 76. These distinct palisades began to overlap at the eastern edge of lot 76. As mentioned in the previous chapter, the four lots east of lot 76 (lots 77–80) were bulldozed prior to inspection by the Division of Archaeology. The route of both palisades, while undoubtedly present within these lots, was lost forever due to this miscommunication. What makes this unfortunate event even more painful is that we will never know if the palisade overlap was in just this one spot, or if the palisade lines merged and continued on an overlapping course.

Palisade Trench

The primary palisade consisted of a trench that encompassed the entire site area. This trench was completely defined along the western and southwestern margins, and partially recorded on the southeast and northeast site edges. This particular feature is believed to be the earthwork drawn by Edwin Curtiss in 1878, as well as Thruston in 1890.

A standard profile of the trench is displayed in Figure 29. This trench varied somewhat in width, ranging between 25 cm and 42 cm. The walls were steep to near vertical with a somewhat rounded base that extended to a depth of 40 cm below subsoil. The original depth of the trench was obviously much deeper but has been obscured by decades of clearing and farming activity.

Remnants of charred posts were visible within the trench fill as well as into the subsoil at the trench base. These charred posts ranged in diameter from 11 to 20 cm, although larger posts up to 40 cm in diameter were intermittently present. Osage orange and/or black locust comprise two tree species identified from recovered post samples (for further discussion see Section IX).

The fortuitous recovery of a stone-box burial (Burial 65) within the trench led to an unexpected opportunity to record construction details that would have otherwise been missed. Selected posts were dug through the trench floor and established as main supports for the palisade wall. The base of one such support post was found to extend 43.5 cm below the trench floor (Figure 30). An unusual design technique for main supports was recorded along the southwest section of the palisade. Within this area, the main supports consisted of large oval to rectangular holes dug through the trench floor, with up to four posts set inside the hole (Figures 31 and 32). These deeper support posts were established at somewhat regular intervals, with additional posts then set between them inside the trench.

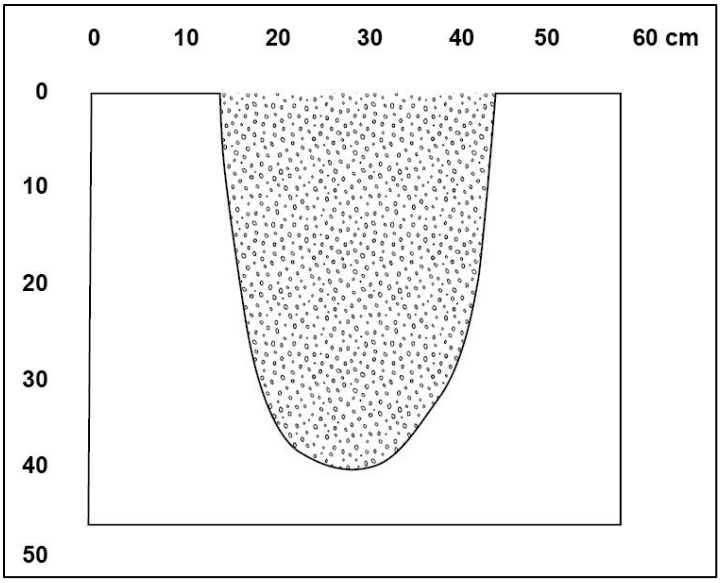

Figure 29. Standard profile of palisade trench in western site area.

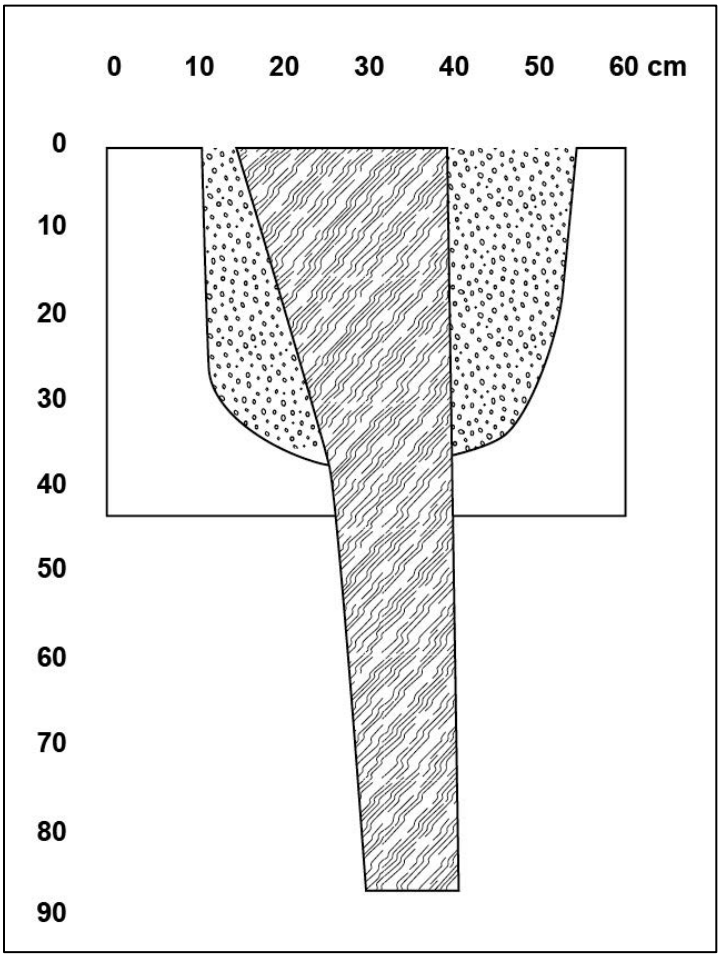

Figure 30. Palisade trench and main support post profile, western site area.

Figure 31. Section of palisade trench exposed during burial removal, lot 76 area (December 1994), looking northwest.

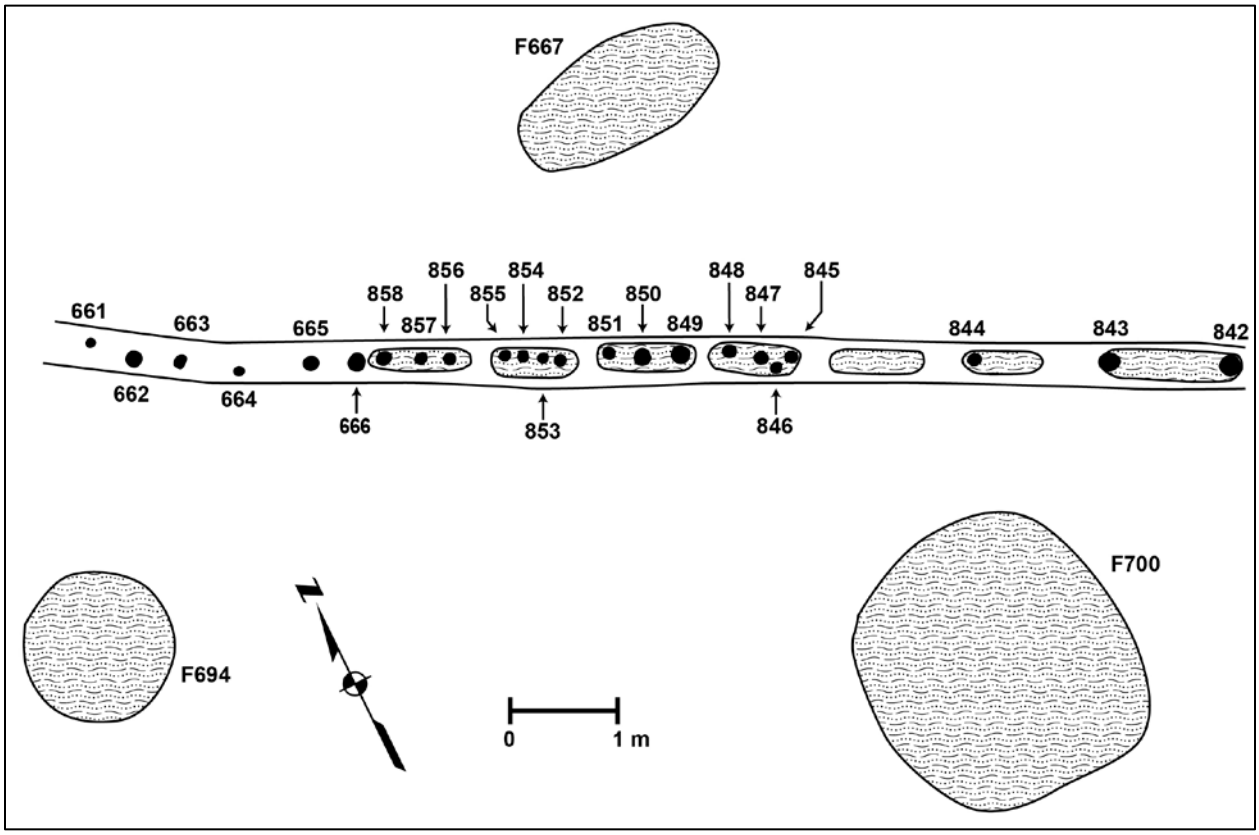

Figure 32. Trench plan view, western site area (lot 76).

Once the posts were set, the palisade was then plastered with clay. This plaster helped support the posts as well as strengthen the wall. Moderate amounts of daub and baked clay were recovered along the entire palisade route. Numerous pit features were recorded just outside the palisade trench. Several of these pits measured over two meters in width but not particularly deep. Additional pits were found immediately inside the line. Excavation of these sizeable features yielded no artifacts from the fill. These pits have been interpreted as borrow sources for clay based upon their proximity to the palisade line, morphology, and absence of artifactual material.

The sections of palisade trench exposed during the 40SU15 project included two bastions. Each bastion was delineated by a somewhat square to rectangular protrusion from the general course of the palisade line. The westernmost bastion was initially exposed by road construction during the summer of 1994 (Figure 33).

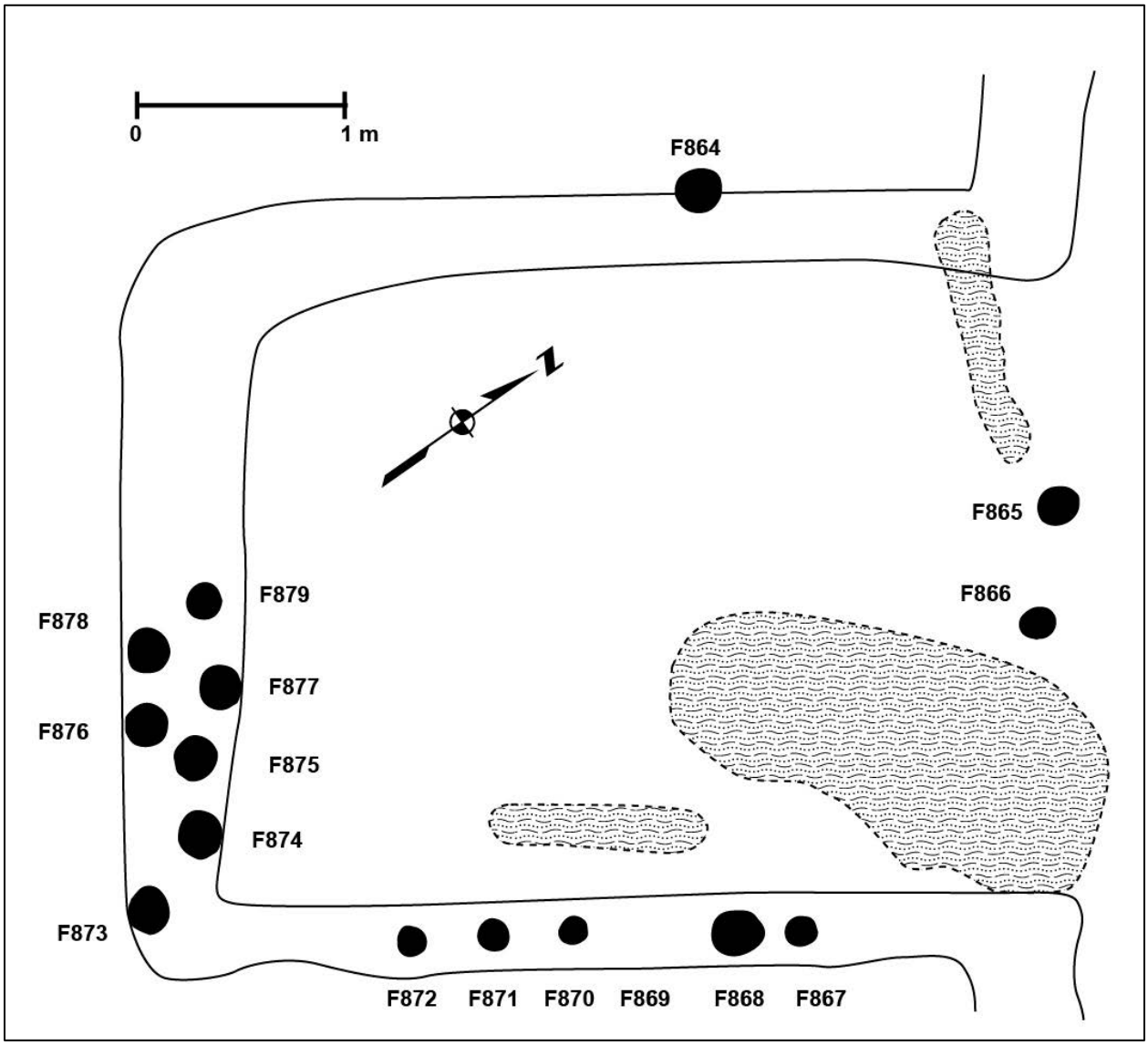

Figure 33. Plan view of burned bastion on west palisade trench (cul-de-sac area).

One detail that immediately stood out was that this particular bastion had burned in a rather spectacular fashion. The trench and interior area had baked to an eye-catching collage of bright yellow, orange, and red colors. Also, this burned bastion exhibited a much more irregular outline in width than the overall palisade trench. Each lateral (northwest, southeast) side of the bastion trench was substantially thinner than the end (southwest) section. The southeast lateral side displayed a single line of posts, whereas the southwest (end) section contained essentially two lines of posts. Whether or not this difference in bastion wall thickness was an intentional design by the site residents, or possibly related to a refurbishing episode, cannot be answered with the available information. Also present inside the bastion were three shallow, somewhat oval to amorphous pits. Time constraints prevented extensive review of these features, but they may have served as the base for bastion ladders and/or platforms.

Curtiss' map of the 40SU15 site area illustrated a palisade with regularly spaced bastions. Assuming that this palisade trench was the wall drawn by Curtiss, then an additional bastion should have been recorded along the northwestern boundary of lot 73. No such feature was visible along the palisade line during the September 1995 evaluation of the lot 73 construction. There are several possibilities that might explain this negative finding. A standard response would be that subdivision earthmoving activity removed the bastion. This statement seems unlikely based upon the visibility of the palisade trench and the substantial depth of the other bastions. Another explanation may be that construction grading within this part of lot 73 did not go deep enough to expose the bastion. Following this track, maybe fill dirt was placed on top of the bastion and obscured its visibility. Yet a fourth option could be that Curtiss took some liberty on the actual number and location of bastions along the palisade wall.

Palisade Line (Post)

The burial removal work in late 1994 uncovered a second palisade line with bastions inside the previously discussed palisade trench. An approximate 35-meter section of the line was recorded in lots 75 and 76, with a smaller 15-meter segment identified in lot 74.

This palisade consisted of a single line of posts set at rather close intervals (10 to 20 cm). These posts generally ranged between 14 and 20 cm in diameter, with an occasional larger post up to 30 cm in diameter. There was no evidence of a trench. Also, no baked clay or daub was observed along this palisade line. This last fact suggests either: (1) the wall was not enhanced with clay plaster, or (2) this particular palisade was completely dismantled and cleared by the site residents.

Four bastions were visible along this palisade line. These bastions were about the same length as the trench bastions, but not quite as wide. The two southernmost bastions appear to be paired (see Figure 28). This suggestion of paired bastions must remain tentative since the palisade route immediately east of lot 76 was destroyed by construction prior to Division evaluation. Still, the possibility of paired bastions makes some interesting food for thought regarding this section of the palisade. Perhaps the most obvious idea is that these paired bastions were protecting a passageway (gate?) into the town. Another proposition, albeit one that cannot be further examined with our present data, is that paired bastions were the standard architectural style rather than the exception.

Structures

Eleven structures were documented across the site area (Appendix C). The first structure was uncovered during the initial 1993 test excavations by the Division of Archaeology. Nine others were exposed at the time of the 1994 burial removal program. A site visit in September 1995 found one additional structure bared by earthmoving activity within lot 73. Buildings of both wall trench (*n*=4) as well as simple post (*n*=7) construction were represented in the sample. The following paragraphs and figures provide a basic description of each structure's construction style, plan view, dimensions, post (including support post) diameter, post intervals, and key features.

Structure 1 (Figure 34)

Construction: Post.

Plan View: Square with rounded corners.

Wall Dimensions: 7.0 m to 7.5 m.

Wall Post Diameter: Generally 18 cm to 26 cm, several examples up to 30 cm.

Wall Post Interval: Generally 15 cm to 30 cm.

Interior Support Post Diameter: (north post) 40 cm, (east post) 28 cm.

Key Features: None recorded. However, numerous postmolds were present along the southwest and southeast walls (partitions?). Two large refuse-filled pits (Features 20 and 36) that overlap near the center probably post-date the structure habitation.

Remarks: This square building was recorded within Strip Block B during the 1993 investigations. One observation noted immediately during the excavation was a substantial number of paired posts forming the structure walls. An important question to consider is whether these paired posts were part of the original construction, or if they were just the by-products of refurbishing activity. The editors would argue that these paired posts were indeed part of the initial building plan. Many refurbished Mississippian structures within the study area display obviously rebuilt walls (or substantial sections) that are separate, and oriented in a slightly different direction from, the original wall. In other instances, the rebuilt wall or wall section remains separate but simply follows the interior or exterior border of the original wall. Structure 1 exhibits neither of these characteristics. An argument for refurbishing activity in several isolated locations would be problematic.

Clusters of posts were present along the structure's northwest and southeast exterior corners. These likely comprise evidence of attached work or storage areas. Additional posts were uncovered in Strip Block B just north of Structure 1. At first glance, these posts appeared to be associated with Structure 1 due to their adjacent proximity. However, a closer examination revealed these particular posts were much larger than the Structure 1 posts, at least twice their size in most cases. Also, their architectural pattern does not favorably compare with the posts of Structure 1.

Two interior central support posts were located during the excavation. One such post (Feature 76) by the structure's north corner measured 40 cm in diameter and extended to a depth of 27 cm below surface. Several smaller posts were located immediately adjacent to Feature 76 but may or may not be part of the central support

system. A probable second support post (Feature 156) was found near the east corner at the base of a large refuse-filled pit (Feature 36). Even at the base of this pit (33 cm below ground surface), the postmold still measured 28 cm in diameter and 23 cm deep.

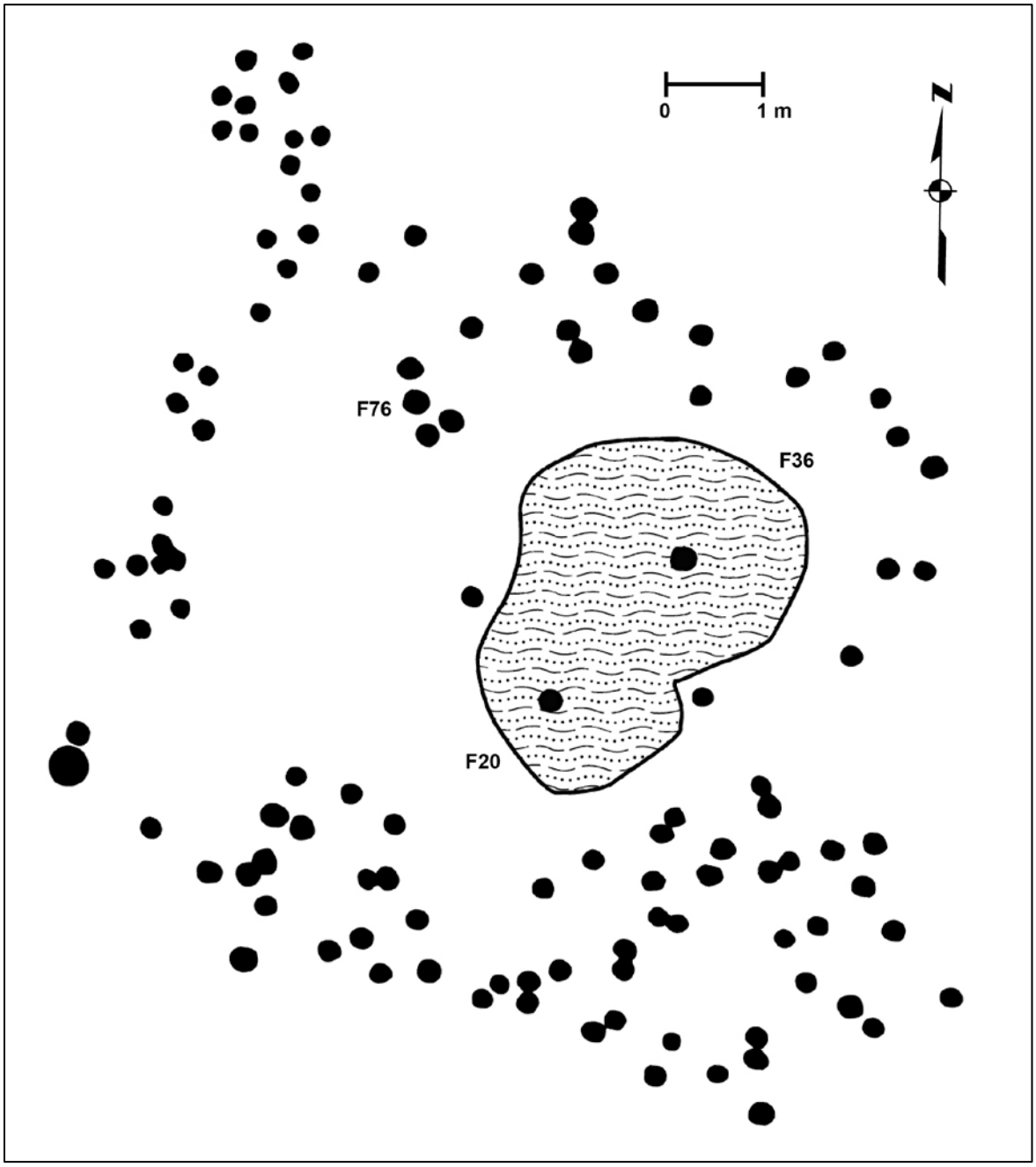

Figure 34. Plan view of Structure 1, strip block B.

No interior habitation features were recorded within Structure 1. This absence of interior features could be interpreted in several ways. The easiest answer would be that such features were removed by past earth-disturbing activities. However, a thin but

intact midden layer containing Mississippian period artifacts was observed to cover this structure, so removal by modern activity (farming or clearing) would not be a plausible explanation. On the other hand, it is possible that prehistoric actions contributed to the destruction of interior features. Features 20 and 36 inside the structure likely post-date Structure 1. Events leading up to (and including) their construction and subsequent filling may have removed such centrally located features as a hearth, support posts, or possibly an infant grave. Still another way to interpret the lack of interior features is that Structure 1 was a special purpose or public building that would not contain the type of features associated with extended domestic activities.

The larger than average size of Structure 1 (7.0 to 7.5 meters) raises some interesting questions. Other excavated Mississippian period structures from the study area usually range from 5.5 to 6.5 meters in width (Barker and Kline 2013; Moore 2005; Moore and Breitburg 1998; Moore and Smith 1993a; Steere and Deter-Wolf 2013). Assuming Structure 1 was residential, was the (nuclear/extended) household size bigger than the average family size? Or, could the size difference reflect an elite status for the occupants? The possible association of Feature 101 with the Structure 1 occupants would strengthen the elite residence suggestion. This large, refuse-filled pit yielded a number of "exotic" artifacts, including mica and negative-painted effigy vessel fragments. However, any association between Feature 101 and Structure 1 must remain tentative at this time. Additional investigations are needed to further evaluate this possibility.

The close proximity of five human graves (Burials 6–10) along the perimeter of Structure 1 cannot be ignored without some comment. Three pit burials and one stone box were recorded immediately east of the structure. In addition, a bundle burial was uncovered just to the south. The obvious question that begs to be asked is what relationship (if any) existed between the people buried in these graves and the structure? Or, is the apparent close proximity between the graves and Structure 1 somewhat misleading due to the limited area exposed by the 1993 excavation? The answers to these questions must remain in the domain of speculation given the limited information available for study. To date, we know nothing about the age, sex, general health, or social status of the interred individuals. Once the burials were discovered and determined to be human, they were immediately covered with soil and left alone.

Structure 2 (Figure 35)

Construction: Post.

Plan View: Square with rounded corners.

Wall Dimensions: 6.5 m to 7.0 m.

Wall Post Diameter: 10 cm to 18 cm.

Wall Post Interval: 40 cm.

Interior Support Post Diameter: (southeast) 21 cm.

Key Features: Two stone-box graves (Burials 11A/B, 12A/B); one rock concentration (Feature 176).

Remarks: Consulting archaeologists in search of human burials uncovered the general outline of Structure 2 along the northern side of lot 74. Unfortunately, this area of the

lot was cleared by construction equipment before the structure could be completely exposed and evaluated by Division personnel.

Several features were associated with this structure. Stone-box graves were present along the structure's west wall (Burial 11A/B) and northeast corner (12A/B), respectively. Each grave contained the remains of two young individuals. No grave goods were associated with these children. A concentration of small limestone rocks (Feature 176) was also observed within the north-central structure area. This feature was defined in the field as a probable rock-lined post as there was no visible evidence of burning activity. Destruction of the structure area prevented any chance of further feature evaluation.

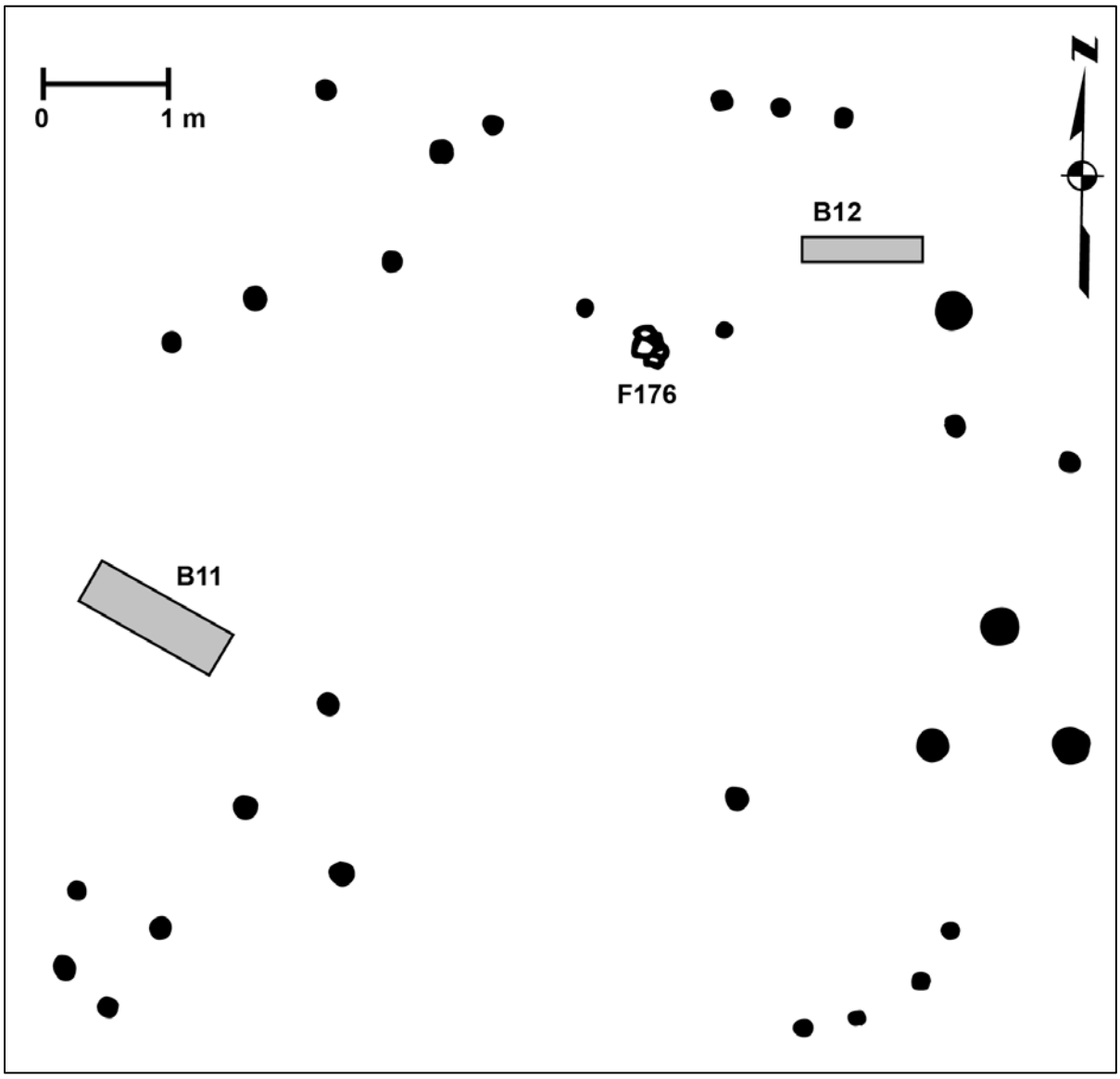

Figure 35. Plan view of Structure 2, lot 74 area.

Structure 3 (Figure 36)

Construction: Post.

Plan View: Square with rounded corners.

Wall Dimensions: No accurate measurement available.

Wall Post Diameter: 10 cm to 14 cm.

Wall Post Interval: 40 cm.

Interior Support Post Diameter: Unknown.

Key Features: None.

Remarks: The northeast section of Structure 3 was exposed along the western margin of lot 74 by consulting archaeologists in search of human burials. The remainder of this square structure extended into lot 73, which was not covered under the burial removal order.

Division personnel recorded a second line of posts just west of the exterior wall. This line represented at the very least one wall refurbishing episode, and possibly a complete reconstruction of the structure. Not enough of the structure was exposed to verify one scenario over the other. Paired posts inside of the interior line likely represent the remnants of partitions. One refuse-filled pit (Feature 209) was also present within the structure interior. Whether or not this feature was associated with Structure 3 cannot be answered at this time.

Structure 4

Construction: Probable post.

Plan View: Unknown.

Wall Dimensions: Unknown.

Wall Post Diameter: Unknown.

Wall Post Interval: Unknown.

Interior Support Post Diameter: Unknown.

Key Features: Unknown.

Remarks: An isolated cluster of posts between Structures 3 and 5 defined this building. The deficient identification resulted from this portion of lot 74 being destroyed by construction activity prior to any investigation by Division personnel. Apparently no evidence of wall trenches or interior features was observed by the consulting archaeologists during their search for human burials. Very little can be said about this structure other than it existed in this location.

Structure 5 (Figure 37)

Construction: Wall trench.

Plan View: Square with open corners.

Wall Dimensions: Trenches measure 5.5 to 6.0 m long.

Wall Post Diameter: Unknown.

Wall Post Interval: Unknown.

Interior Support Post Diameter: No positive identification, although two probable support posts in the southeast corner measure 20 cm and 22 cm.

Key Features: One stone-box grave (Burial 20); one central hearth (Feature 301).

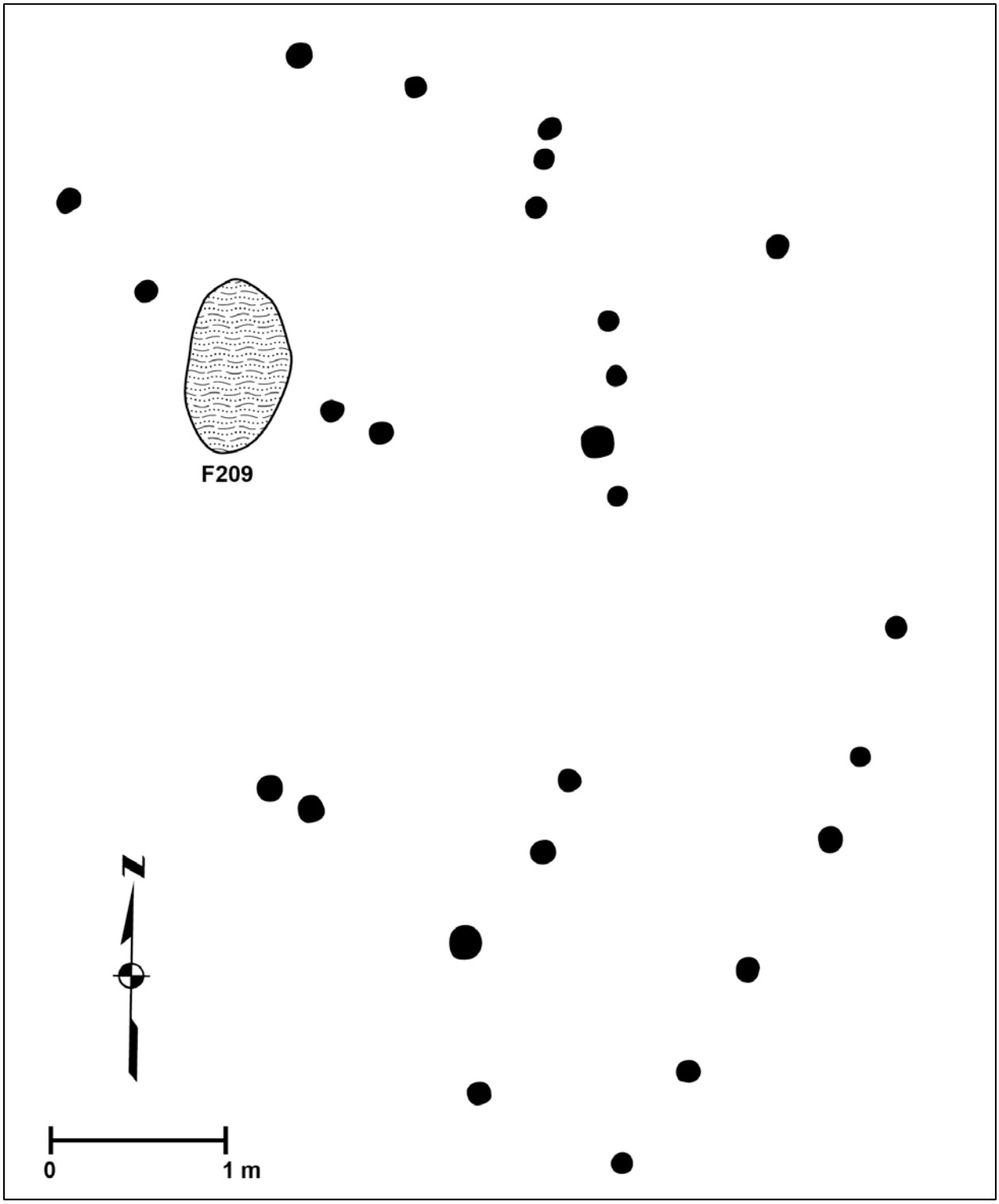

Figure 36. Plan view of Structure 3, lot 73 and 74 area.

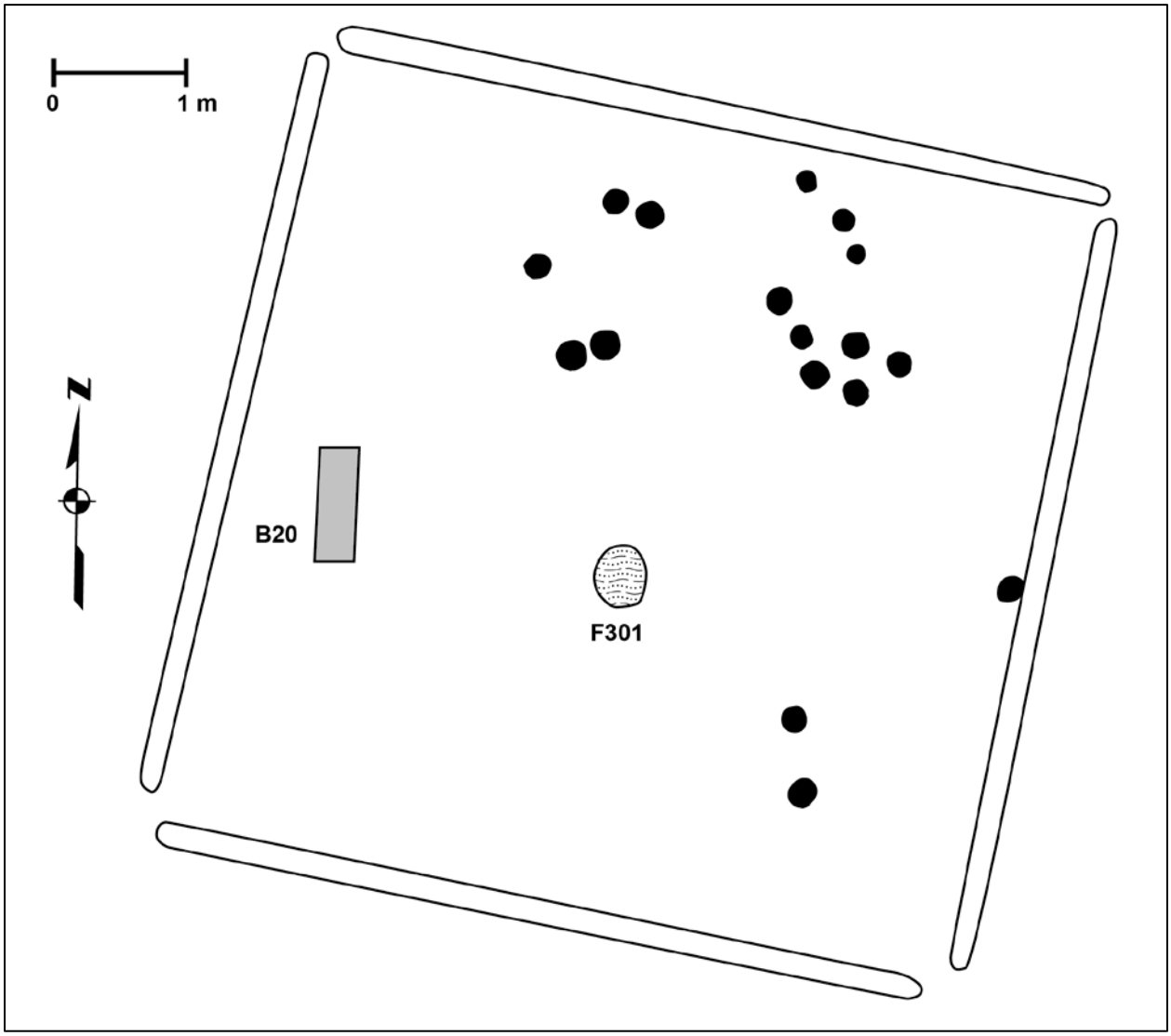

Figure 37. Plan view of Structure 5, lot 74 area.

Remarks: Structure 5 was uncovered in the very center of lot 74 by consulting archaeologists searching for human burials. This building received a major investment of the Division's limited time due to the symmetrical wall trenches and presence of interior features. Unlike some other structures within lots 74–76, this classic example of Mississippian architecture was not destroyed by construction prior to an inspection by Division personnel.

A linear trench 5.5 to 6.0 m long and nearly 20 cm wide denoted each wall. Trench depths were not assessed due to time constraints, and no postmolds were observed within the trench fill. The trenches were separated by a 20 to 30 cm open space within each corner. A somewhat circular burned area, roughly 45 cm in diameter, was recorded near the structure center. This severely disturbed feature (Feature 301) was likely the remnant of a central hearth. One small stone-box grave (Burial 20) near

the west wall contained the poorly preserved skeletal remains of a fetal/newborn infant. No burial items had been placed with this individual.

Structure 6 (Figure 38)

Construction: Post.
Plan View: Square.
Wall Dimensions: 5.5 m.
Wall Post Diameter: 12 cm to 14 cm.
Wall Post Interval: 10 cm to 30 cm.
Interior Support Post Diameter: (southeast) 25 cm, (possible southwest post) 18 cm.
Key Features: One posible pit burial (Burial 25) and one stone-box grave (Burial 26).

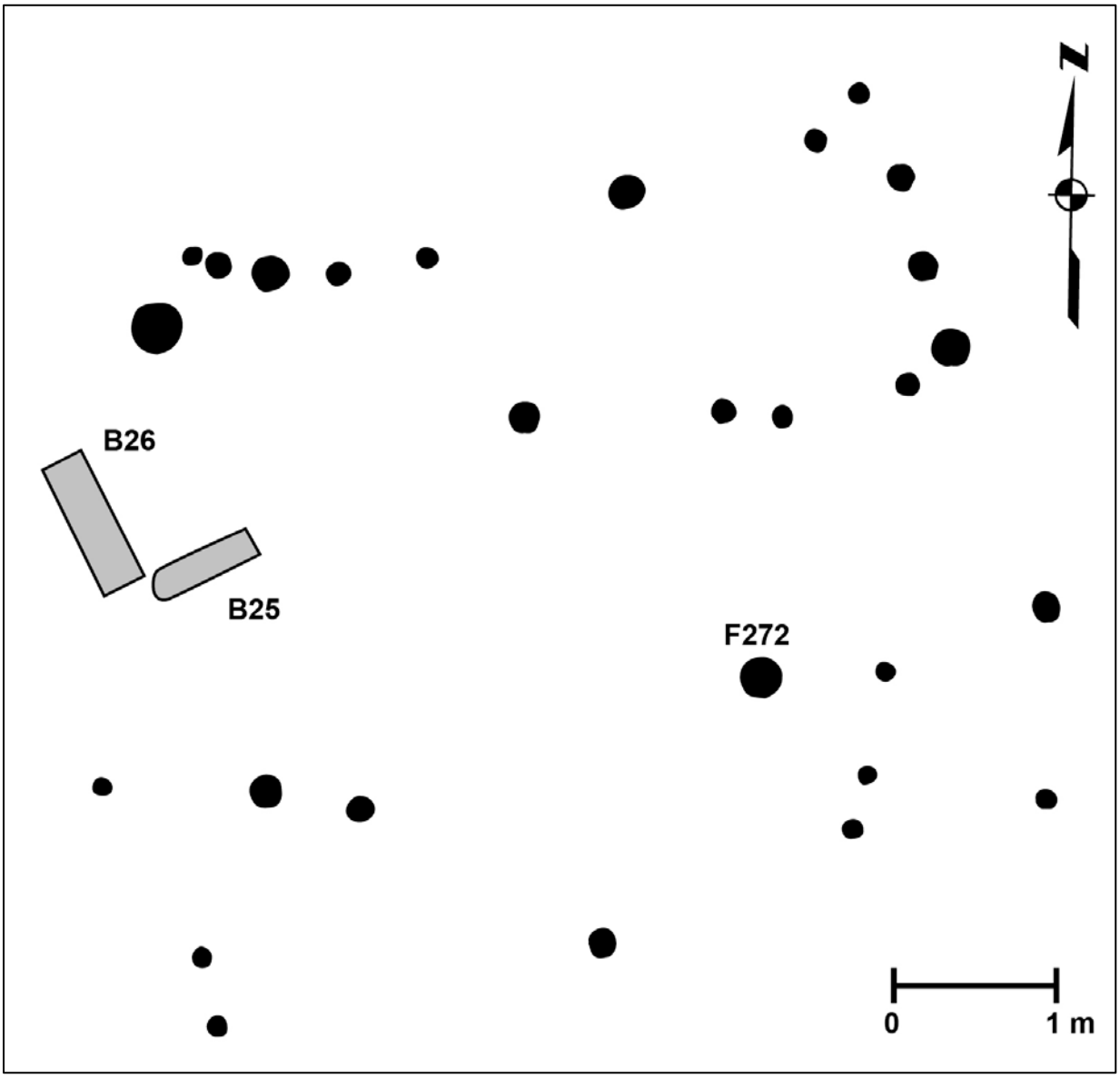

Figure 38. Plan view of Structure 6, lot 74 area.

Remarks: Structure 6 was exposed immediately south of Structure 5 during the search for human burials in lot 74. Grading activity destroyed this building location prior to additional attention by Division personnel.

The Division observed and mapped a square, yet obviously incomplete, post pattern. The consultant investigation yielded no evidence of a central hearth. However, one definite and another probable support post(s) were among the few interior architectural details exposed by the consultant. The southeast support post (Feature 272) measured 25 cm in diameter. A probable support post near the southwest corner (Feature 258) yielded a diameter of 18 cm. Several other posts were uncovered throughout the structure interior. These particular posts likely comprise the remains of partitions.

Two burials (25 and 26) were uncovered near the structure's northwest corner. Burial 25 represented the grave of an adolescent whose head was at the feet of Burial 26. The consultant notes were not clear about the method of interment for the Burial 25 individual. This grave may have been a looted stone-box with all the stones removed, or possibly a pit burial. Burial 26 comprised a stone-box with the remains of a young child. No artifactual material was recovered from either grave.

Structure 7 (Figure 39)

Construction: Post.
Plan View: Square with rounded corners.
Wall Dimensions: South wall measured 6.0 m.
Wall Post Diameter: 12 cm to 16 cm.
Wall Post Interval: 30 cm to 40 cm.
Interior Support Post Diameter: (southwest) 15 cm, (southeast) 17 cm.
Key Features: None.
Remarks: Structure 7 was revealed within the southwest corner of lot 75 during the consultant search for human burials. The west wall extended into the cul-de-sac road cut. An earlier road cut associated with the initial subdivision plan destroyed the northern section of this building. However, Division personnel were able to completely assess the visible structure locale.

The south wall, and portions of the west and east walls had not been destroyed by previous earthmoving activity. This building yielded a classic square with rounded corner post pattern. Interestingly, the southwest structure corner overlapped the interior palisade line. Determining whether the palisade or structure was established first is problematic given the salvage nature of the burial removal program.

Investigations within the structure interior exposed the southern support posts (Features 538 and 539), but failed to identify such expected features as burials or a hearth. A two-meter section of wall trench inside the structure does not appear to be associated with Structure 7. The unusual location of two sizeable posts (Features 597 and 598) near the estimated structure center may have a support function, although this suggestion must remain tentative at this time.

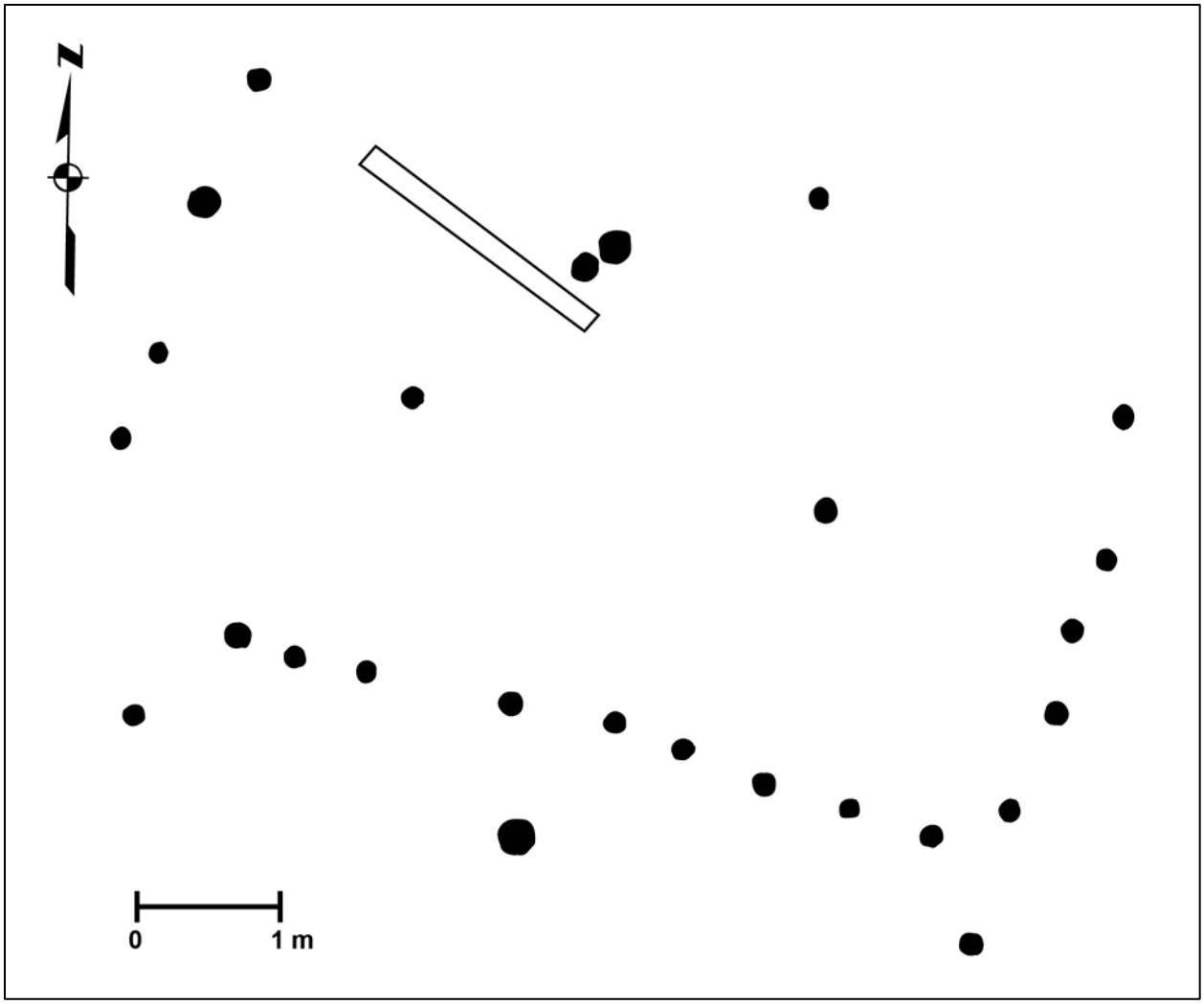

Figure 39. Plan view of Structure 7, lot 75 and cul-de-sac area.

Structure 8 (Figure 40)

Construction: Wall trench.
Plan View: Square with open corners.
Wall Dimensions: East and south trenches measure 6.5 m.
Wall Post Diameter: Unknown.
Wall Post Interval: Unknown.
Interior Support Post Diameter: (southeast) 20 cm, (southwest) 22 cm, (northwest) 22 cm, (northeast) 20 cm.
Key Features: None.
Remarks: Burial removal investigations uncovered this wall trench building along the northern border of lot 76 and southern border of lot 75. Additional evaluation exposed all but the extreme northwest structure corner. This particular corner had been previously disturbed by a road cut associated with the initial subdivision plan.

Structure 8 was by far the largest wall trench building recorded during the site excavations. Two completely disclosed wall trenches (east and south) extended 6.5 m in

length. Although small portions of the west and north trenches were missing, they appear to have been consistent in length with the east and south trenches. Each trench measured 20 cm in width, with no visible postmolds. Trench depths were not obtained due to time limitations. All of the visible corners were open, with a 40 cm space separating each trench.

No interior mortuary or domestic features were recorded inside Structure 8. However, four central support posts (measuring between 20 and 22 cm) were identified. A few additional interior postmolds may have provided structural support.

One small stone-box grave (Burial 36) was recorded just outside the northeast corner of this building. Whether or not this infant was associated with the Structure 8 residents cannot be answered with the available information.

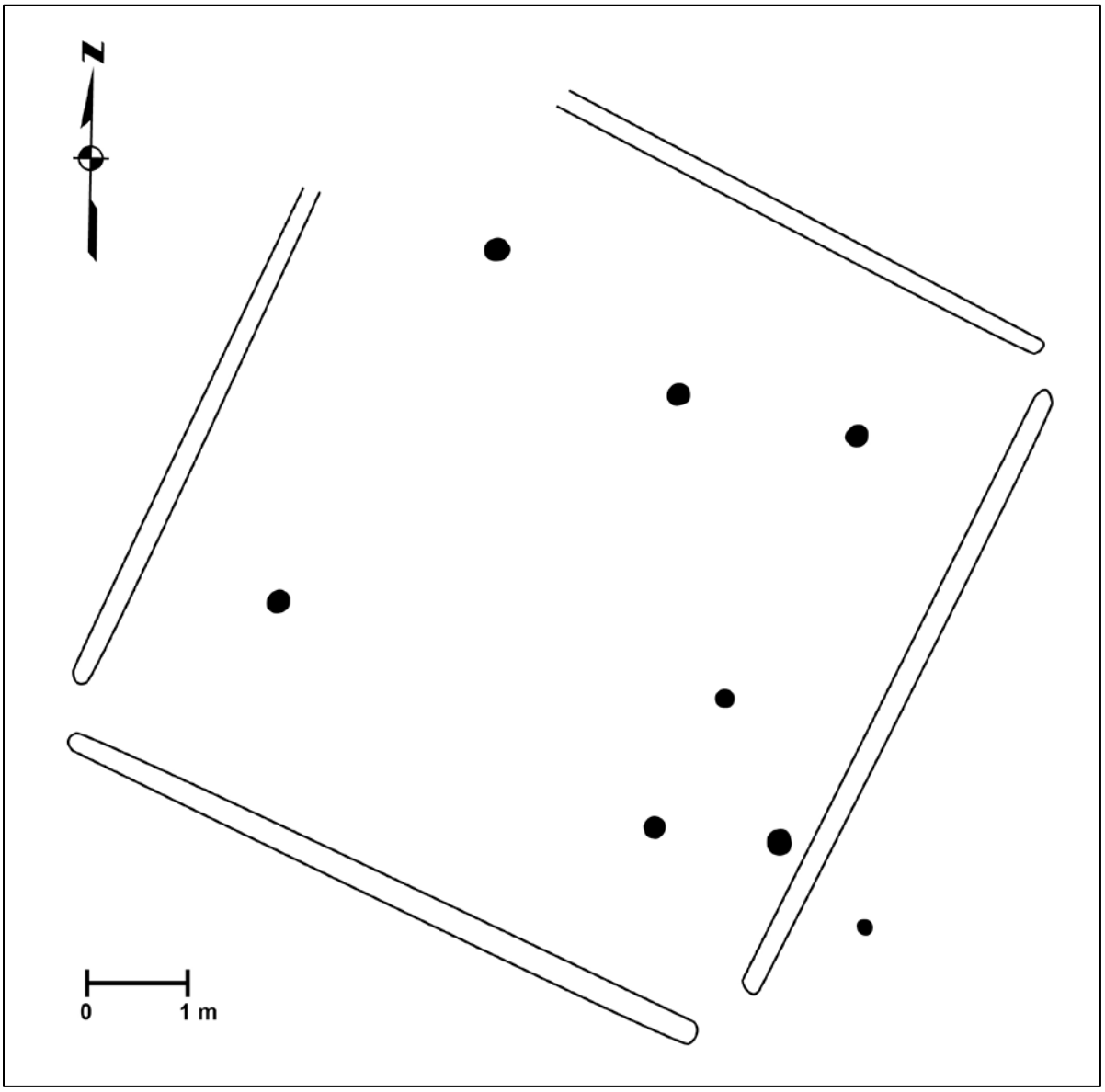

Figure 40. Plan view of Structure 8, lot 75 and 76 area.

Structure 9 (Figure 41)

Construction: Wall trench.

Plan View: Square with open corners.

Wall Dimensions: Northeast trench measures 4.5 m, northwest and southeast trenches measure 5.0 m.

Wall Post Diameter: Unknown.

Wall Post Interval: Unknown.

Interior Support Post Diameter: Unknown.

Key Features: One stone-box grave (Burial 28).

Remarks: Structure 9 was uncovered immediately southwest of Structure 8 by the consultants in search of human burials. A nearly complete wall trench pattern was identified by additional Division investigation. The southwest trench was included within a small strip of land destroyed by construction activity.

This rather small building yielded trenches 4.5 to 5.0 m long and 20 cm wide. Trench depths remain unknown, and no postmolds were observed within the trench fill. These trenches were separated by 30 to 50 cm open spaces within each corner.

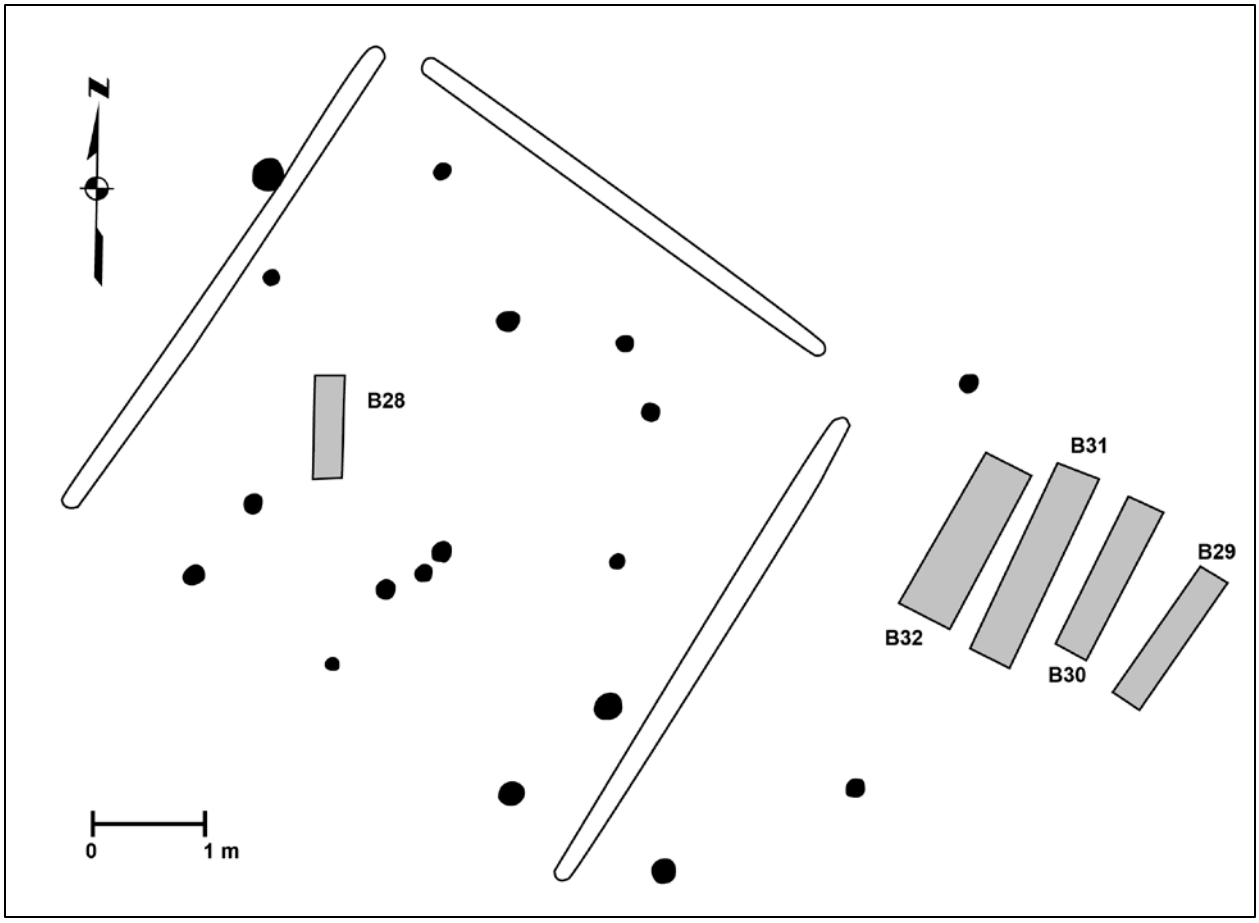

Figure 41. Plan view of Structure 9, lot 76 area.

No domestic features were exposed inside Structure 9. Numerous posts were mapped inside the structure, although none could be confidently defined as a central support. These interior poles were likely used for support as well as partitions.

A small stone-box grave (Burial 28) was defined inside the structure somewhat near the southwest wall. This burial contained the remains of a newborn/infant with no associated grave items. Also of note, immediately east of the structure's east corner was a cluster of four stone-box graves (Burials 29–32). The relationship of these three adults and one child to the Structure 9 inhabitants remains the subject of speculation at this time.

Structure 10 (Figure 42)

Construction: Wall trench.
Plan View: Square with open corners.
Wall Dimensions: North and west trenches 4.0 m, east trench 5.0 m, interior south trench 4.0 m, exterior south trench 4.5 m.
Wall Post Diameter: Unknown.
Wall Post Interval: Unknown.
Interior Support Post Diameter: Unknown.
Key Features: None.
Remarks: Consultants searching for human burials exposed this building within the northeast quarter of lot 76. Additional work by Division personnel identified a complete structure with two south wall trenches. No interior domestic or mortuary features were uncovered during the consultant or Division excavations.

The five wall trenches associated with Structure 10 varied between 4.0 and 5.0 m in length, but consistently measured about 20 cm in width. Trench depths were not recorded due to time restraints. The south wall was obviously reconstructed, either to refurbish the structure, or possibly enlarge the interior space.

All of the structure corners were open, with the wall trenches separated by spaces of different sizes. The northwest corner space was much wider (one meter) than the other three corners (20 to 45 cm).

A few posts were present within the structure interior along the south wall. The curious location of two additional posts near the exact center of Structure 10 does not conform to previously defined Mississippian patterns. However, a reasonable possibility exists that these center posts were not originally part of Structure 10, but rather predate or postdate the building.

Structure 11 (Figure 43)

Construction: Post.
Plan View: Square.
Wall Dimensions: 5.0 m
Wall Post Diameter: Generally 8 to 18 cm, several between 18 to 20 cm.
Wall Post Interval: 10 to 30 cm.
Interior Support Post Diameter: Unknown.
Key Features: None.

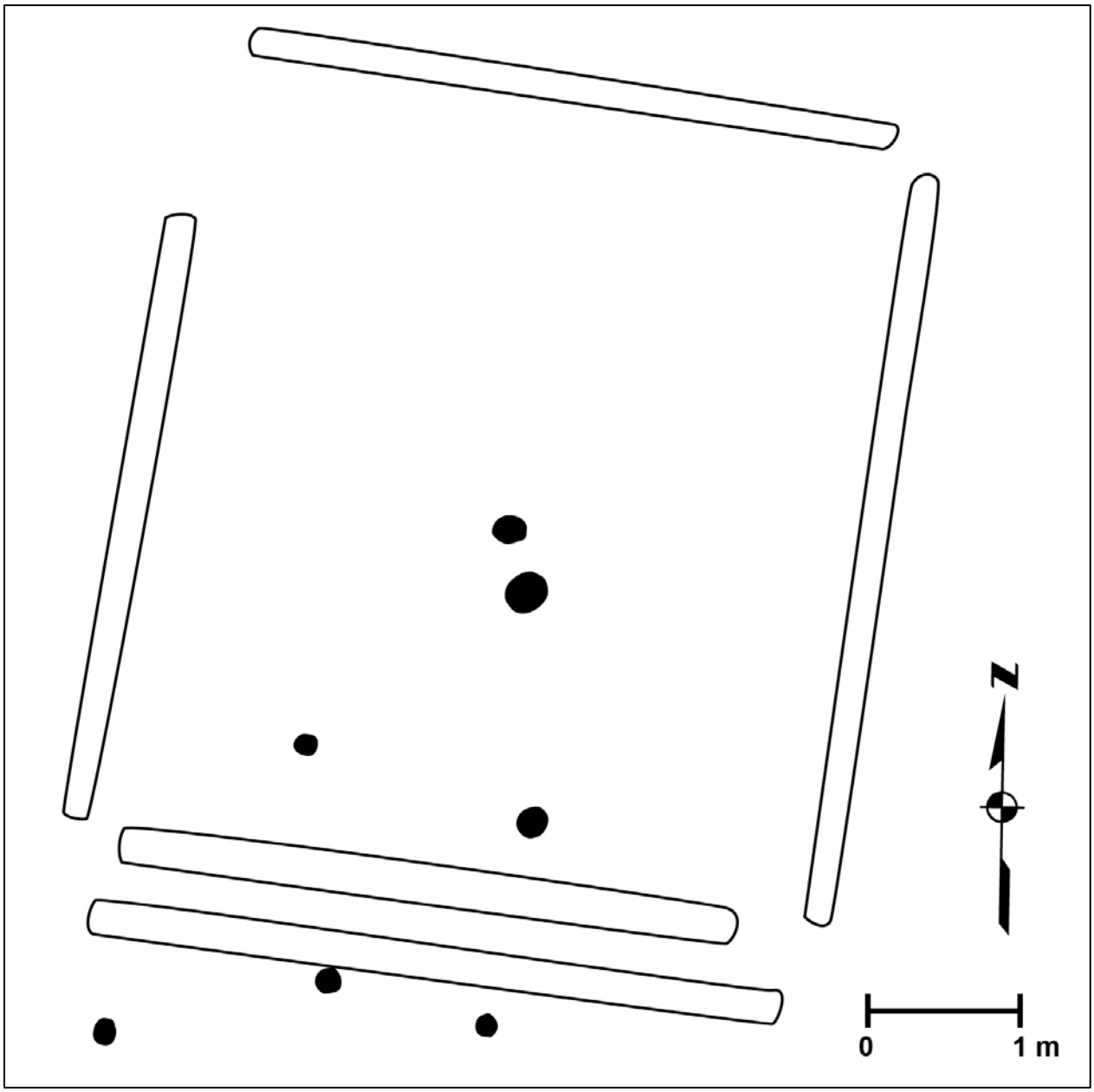

Figure 42. Plan view of Structure 10, lot 76 area.

Remarks: Structure 11 was identified during a routine site visit in September 1995. Several postmolds associated with this building were uncovered by grading activity along the rear section of lot 73. A square structure pattern was eventually exposed and mapped by Division personnel. No domestic or mortuary features were recorded within the structure interior.

A rather substantial line of posts defined the west wall. A second (partial) line of posts just outside the west wall comprised evidence of refurbishing activity. The east wall was also intact, although not to the extent of the west wall.

In contrast, the north and south walls were defined by intermittent and sinuous post patterns. These particular walls may represent the more open ends of a warm weather structure. Near the center of each open wall was one large interior support post. These posts measured 27 cm near the north wall (Feature 794) and 30 cm near the south wall (Feature 816).

An alternative explanation for the intermittent post patterns may be these (apparent) walls actually represent interior architectural features, and that the true north and south wall posts were removed by earthmoving action.

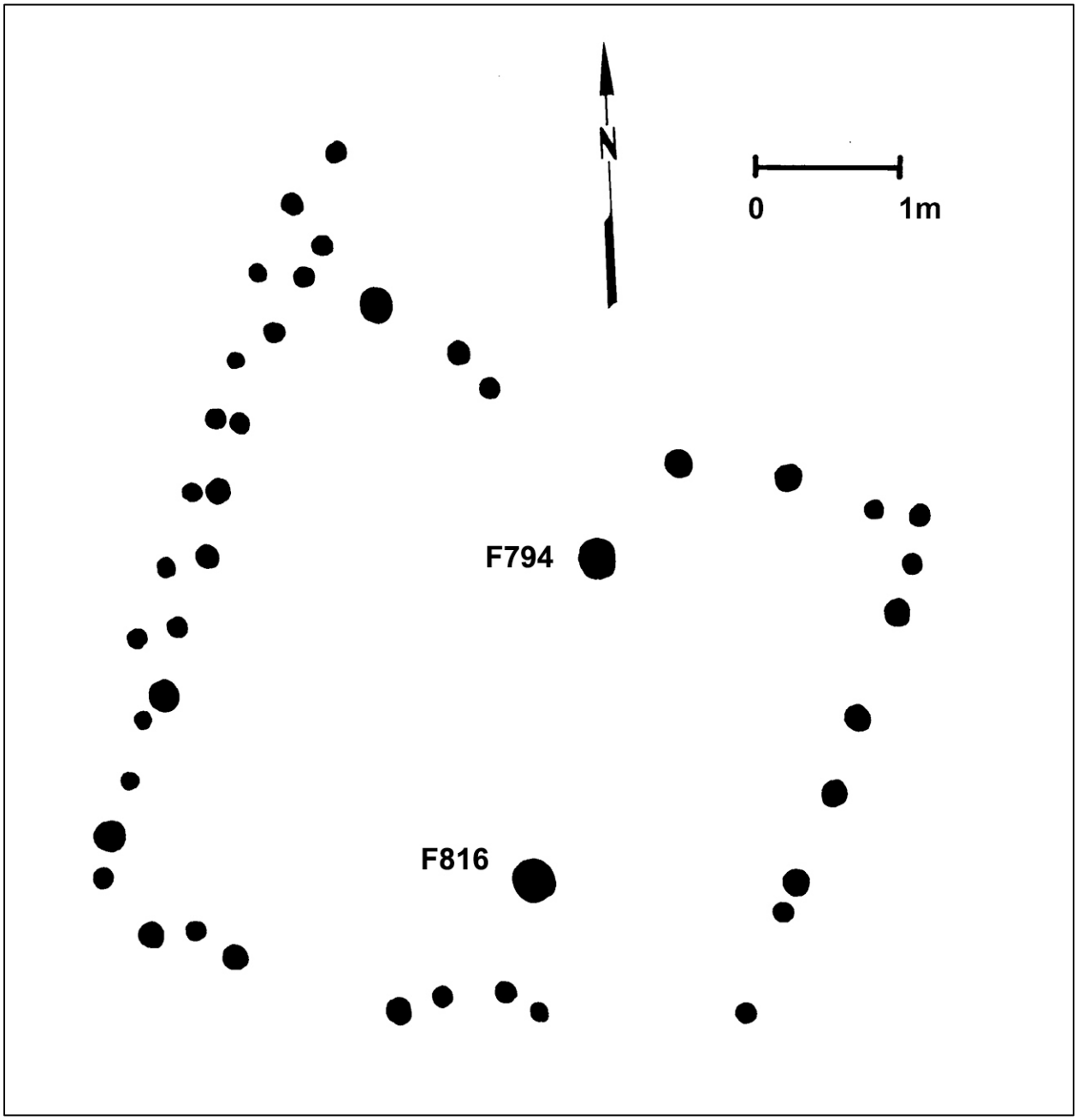

Figure 43. Plan view of Structure 11, lot 73 area.

Pits

A moderate number (*n*=61) of circular and oval pit features were formally recorded by the Division of Archaeology between 1993 and 1995. This total includes the pit features uncovered by the 1993 Division investigation, as well as those pits exposed and examined during the 1994 and 1995 burial removal programs. This total does not include the numerous unmapped pits exposed during the initial 1994 consultant work.

The recorded pits were separated into three broad functional categories: (1) waste disposal; (2) borrow; and (3) heating. Assignment to a particular category was based upon the pit's morphology, artifactual content, and location relative to other site features (Appendix C).

Waste Disposal (*n*=39)

Pits used for waste disposal comprised 63.9% of the sample. Features assigned to this category were 15, 18, 20, 36, 62, 89, 101, 193, 194, 195, 209, 244, 359, 360, 361, 362, 365, 371, 372, 373, 374, 392, 425, 500, 503, 506, 549, 550, 558, 559, 587, 588, 739, 740, 741, 771, 798, 817, and 880. All but one of these features exhibited a circular to oval plan view. Pit dimensions varied considerably, with this measurement certainly affected by such modern activities as plowing, clearing, and grading. The smallest pits measured between 35 and 45 cm in width. Several of the larger pits were over three meters wide. Basin-shaped profiles were observed for the formally excavated features in Strip Blocks B and C. Grave removal activity within lot 85 recorded several pits with conical profiles.

Feature 101 was ultimately used for waste disposal, but displayed its own unique character that was distinct from the other pits. This partially exposed (estimated one-half to two-thirds) feature in the northwest corner of Strip Block B exhibited an irregular plan view, with the excavated portion measuring 4.2 meters wide. The profile was somewhat basin-shaped with an undulating base. The original intent of this feature may have been as a borrow source for clay, with the resulting depression used for refuse disposal over time.

Features within this category yielded a moderate amount of artifactual material generally considered to be "refuse" or discarded by-products of manufacturing activities. These items include ceramic sherds, decortication flakes/blocky debris, animal bone fragments, chunks of daub/baked clay, and charcoal/ash. Several pits within Strip Block B (Features 20, 36, and 101) were especially rich in the variety of disposed artifacts. These three features yielded items not commonly found within other waste disposal pits, such as ceramic vessel sections (jars and bowls), exotic minerals (mica and graphite), and specialized stone implements (chisels, disks, gorgets, etc).

Borrow (*n*=21)

Twenty-one features (34.4%) were classified as borrow pits. Included within this category were Features 660, 667, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 710, 711, 713, 714, 715, 716, 717, 718, and 863. All of these pits were adjacent to the palisade trench, with eighteen established along the exterior border. Despite modern disturbances these features were very consistent in plan view and dimensions. Most pits were circular in plan view.

A few oval pits were also present. Although the dimensions ranged between 50 cm and 3.2 m in diameter, the vast majority of pits (*n*=17) measured between 1.0 m and 2.0 m in diameter.

The consultant examined each of these pits for human remains during the 1994 burial removal. These investigations yielded a grand total of two small core fragments (one each from Features 702 and 715). In other words, nineteen pits contained no cultural material at all.

Heating (*n*=1)

One pit (Feature 738) exposed during the 1995 burial removal in lot 85 was assigned to this category. This circular feature measured 2.6 m in diameter and 30.0 cm deep, with a basin-shaped profile. Excavation of this feature uncovered a pit that had contained multiple fires with intense heat. The sides and base were partially lined with burned limestone slabs that were a bit thicker than the standard grave slab). The underlying soil had burned to a very bright orange-red color. No stratigraphy was observed within the fill that was loaded with a mixture of burned earth, ash, and wood charcoal. A moderate amount of lithic debris was recovered from Feature 738, although the overall total seemed sparse given the large pit size.

This feature dates to the Middle Woodland period based upon an uncorrected radiocarbon date of AD 630 +/- 60 (Beta-90627). The most simplistic suggested use for this pit would be as a roasting hearth for some type of communal feast. Large roasting pits have been recorded from other Woodland period sites south of the study area. A second possible use would be a large fire pit as a source of heat and/or light.

Still another possibility could be Feature 738 represents a crematory basin, although the fact that, no human skeletal elements (or for that matter any faunal remains) were recovered from this feature argues against this use. However, (proposed) Middle Woodland crematory basins from other parts of Middle Tennessee have also failed to yield human remains (Butler 1977, 1979; Moore 2000). The careful recovery and subsequent reburial of cremated remains have been proposed as reasons why the absence of burned human bone does not necessarily disqualify a feature as a crematory basin.

V. RADIOCARBON DATES

Michael C. Moore

The successful recovery of charred materials from the Rutherford-Kizer investigations provided the opportunity to prepare samples for radiocarbon assay. A total of fifteen samples were submitted for analysis. Nine samples from Strip Block B features were selected and sent after the initial 1993 work. Six additional samples were submitted following the 1994 and 1995 burial removals. Five of these six samples were from the two palisade lines exposed during the 1994 removal. A large pit feature uncovered during the 1995 removal in lot 85 provided the sixth sample.

Calibrated results for each sample have been presented in Tables 1 and 2 (Stuiver et al. 2000). As anticipated, fourteen samples yielded dates within the AD 950 to 1500 date range broadly defined as Mississippian. The remaining sample originated from an isolated area of the site with several Woodland period features.

Twelve Mississippian dates yielded calibrated results (at 2-sigma) between AD 1281 and 1483 (Figure 44). These results place the site well within the Thruston phase range of AD 1250 to 1450. Charred wood from a large pit feature of suspected Woodland origin was submitted for assay. Calibrated results (at 2-sigma) of AD 619–874 confirmed the feature was of late Middle Woodland age.

Table 1. Radiocarbon Dates from the 1993-1995 Excavations of 40Su15.

Sample No.	Charred Material	Dates BP	Calibrated Results * 1 Sigma	Calibrated Results * 2 Sigma	Provenience
Beta-90627	wood	1320+/- 60	AD 657 - 772	AD 619 - 874	Feature 738 (large hearth, lot 85)
Beta-70876	wood	970 +/- 50	AD 1017 - 1157	AD 984 - 1205	Feature 15 (small refuse-filled pit, Strip Block B)
Beta-90625	wood	780 +/- 60	AD 1194 - 1288	AD 1045 - 1383	Feature 528 (interior palisade bastion post)
Beta-70874	wood	630 +/- 60	AD 1298 - 1394	AD 1281 - 1414	Feature 20 (large refuse-filled pit, Strip Block B)
Beta-70877	wood	630 +/- 50	AD 1299 - 1393	AD 1286 - 1406	Feature 36 (large refuse-filled pit, Strip Block B)
Beta-70880	wood	640 +/- 50	AD 1297 - 1391	AD 1284 - 1403	Feature 96 (posthole, Structure 1, Strip Block B)
Beta-90024	wood	590 +/- 50	AD 1304 - 1404	AD 1297 - 1422	Feature 733 (exterior palisade bastion post)
Beta-70873	wood	580 +/- 50	AD 1305 - 1410	AD 1299 - 1426	Feature 101 (large refuse-filled pit, Strip Block B)
Beta-70875	wood	580 +/- 50	AD 1305 - 1410	AD 1299 - 1426	Feature 20 (large refuse-filled pit, Strip Block B)
Beta-90626	wood	570 +/- 60	AD 1305 - 1418	AD 1298 - 1436	Feature 708 (interior palisade post)
Beta-70878	wood	570 +/- 60	AD 1305 - 1418	AD 1298 - 1436	Feature 34 (posthole, Structure 1, Strip Block B)
Beta-70879	wood	540 +/- 50	AD 1326 - 1435	AD 1302 - 1443	Feature 88 (posthole, Structure 1, Strip Block B)
Beta-90025	wood	540 +/- 60	AD 1321 - 1437	AD 1299 - 1449	Feature 832 (exterior palisade post)
Beta-90023	wood	500 +/- 50	AD 1333 - 1445	AD 1307 - 1483	Feature 867 (exterior palisade bastion post)
Beta-70872	wood	500 +/- 50	AD 1333 - 1445	AD 1307 - 1483	Feature 101 (large refuse-filled pit, Strip Block B)

* CALIB Radiocarbon Calibration, Version 4.3 (Stuiver *et al.* 2000)

Table 2. Calibrated Results for Radiocarbon Samples from 40SU15.

Beta-90627		
Radiocarbon Age BP	1320 +/- 60	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 657 - 725	0.687
	739 - 772	0.313
95.4 (2 sigma)	cal AD 619 - 633	0.018
	636 - 783	0.875
	788 - 831	0.062
	838 - 874	0.045
Beta-70876		
Radiocarbon Age BP	970 +/- 50	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 1017 - 1066	0.443
	1083 - 1124	0.365
	1137 - 1157	0.191
95.4 (2 sigma)	cal AD 984 - 1165	0.961
	1167 - 1188	0.037
	1205 - 1205	0.001
Beta-90625		
Radiocarbon Age BP	780 +/- 60	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 1194 - 1196	0.014
	1210 - 1288	0.986
95.4 (2 sigma)	cal AD 1045 - 1051	0.005
	1056 - 1087	0.029
	1121 - 1138	0.018
	1156 - 1303	0.932
	1368 - 1383	0.016
Beta-70874		
Radiocarbon Age BP	630 +/- 60	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 1298 - 1328	0.377
	1344 - 1394	0.623
95.4 (2 sigma)	cal AD 1281 - 1414	1.000
Beta-70877		
Radiocarbon Age BP	630 +/- 50	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 1299 - 1327	0.385
	1346 - 1375	0.385
	1375 - 1393	0.230
95.4 (2 sigma)	cal AD 1286 - 1406	1.000
Beta-70880		
Radiocarbon Age BP	640 +/- 50	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 1297 - 1325	0.401
	1349 - 1391	0.599
95.4 (2 sigma)	cal AD 1284 - 1403	1.000

Table 2. Calibrated Results for Radiocarbon Samples from 40SU15. (continued)

Beta-90024		
Radiocarbon Age BP	590 +/- 50	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 1305 - 1355	0.665
	1357 - 1365	0.105
	1386 - 1404	0.229
95.4 (2 sigma)	cal AD 1297 - 1422	1.000
Beta-70873		
Radiocarbon Age BP	580 +/- 50	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 1305 - 1355	0.657
	1364 - 1365	0.021
	1386 - 1410	0.322
95.4 (2 sigma)	cal AD 1299 - 1375	0.629
	1375 - 1426	0.371
Beta-70875		
Radiocarbon Age BP	580 +/- 50	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 1305 - 1355	0.657
	1364 - 1365	0.021
	1386 - 1410	0.322
95.4 (2 sigma)	cal AD 1299 - 1375	0.629
	1375 - 1426	0.371
Sample ID		
Radiocarbon Age BP	570 +/- 60	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 1305 - 1355	0.596
	1363 - 1365	0.019
	1386 - 1418	0.385
95.4 (2 sigma)	cal AD 1298 - 1436	1.000
Beta-90626		
Radiocarbon Age BP	570 +/- 60	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 1305 - 1355	0.596
	1363 - 1365	0.019
	1386 - 1418	0.385
95.4 (2 sigma)	cal AD 1298 - 1436	1.000
Beta-70878		
Radiocarbon Age BP	570 +/- 60	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 1305 - 1355	0.596
	1363 - 1365	0.019
	1386 - 1418	0.385
95.4 (2 sigma)	cal AD 1298 - 1436	1.000

Table 2. Calibrated Results for Radiocarbon Samples from 40SU15. (continued)

Beta-70879		
Radiocarbon Age BP	540 +/- 50	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 1326 - 1347	0.296
	1392 - 1435	0.704
95.4 (2 sigma)	cal AD 1302 - 1370	0.416
	1381 - 1443	0.584
Beta-90025		
Radiocarbon Age BP	540 +/- 60	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 1321 - 1351	0.348
	1389 - 1437	0.652
95.4 (2 sigma)	cal AD 1299 - 1449	1.000
Beta-90023		
Radiocarbon Age BP	500 +/- 50	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 1333 - 1337	0.043
	1399 - 1445	0.957
95.4 (2 sigma)	cal AD 1307 - 1355	0.148
	1361 - 1365	0.004
	1386 - 1483	0.847
Beta-70872		
Radiocarbon Age BP	500 +/- 50	
% area enclosed	cal AD age ranges	relative area under probability distribution
68.3 (1 sigma)	cal AD 1333 - 1337	0.043
	1399 - 1445	0.957
95.4 (2 sigma)	cal AD 1307 - 1355	0.148
	1361 - 1365	0.004
	1386 - 1483	0.847

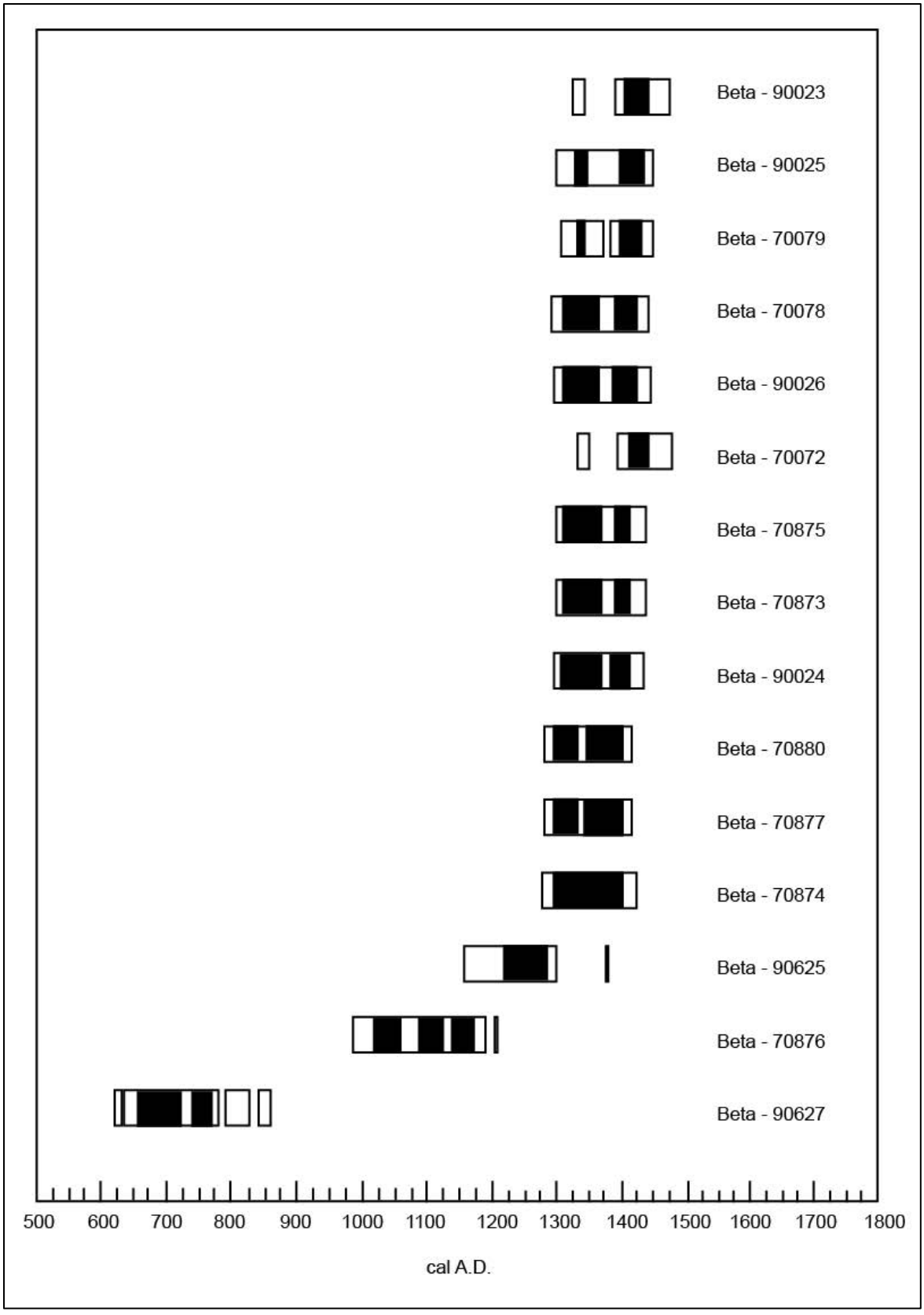

Figure 44. Calibrated ranges of 40SU15 radiocarbon dates.

VI. MORTUARY ANALYSIS

Emanuel Breitburg and Michael C. Moore

This section presents an analysis of the 91 human burials uncovered during the 1993–1995 investigations at the Rutherford-Kizer site (Table 3). Of these 91 burials, a total of 81 graves (containing 86 individuals) were removed under court order and later reburied within the large greenspace. The primary goals of this section are: (1) describe the types and morphological characteristics of the 91 burials exposed during the 40SU15 investigations; and (2) present demographic information obtained from the 81 exhumed graves to extract some insights about the human beings that lived and died at the Rutherford-Kizer site over 600 years ago. Bioarchaeological data compiled from three nearby Mississippian sites (Gordontown, Moss-Wright, and Averbuch) has been included in this analysis to broaden the picture from an intrasite view to a more regional perspective.

The distinct marker for Mississippian period burials throughout the Middle Cumberland region are graves lined with limestone or shale slabs ("stone boxes"). This mode of interring the dead is part of a much broader regional pattern of Mississippian period mortuary behavior reported elsewhere in the mid-South as well as portions of Kentucky, Ohio, Indiana, and Illinois (Brown 1981; Clay 1984; Dowd 1986; Milner and Schroeder 1992; Putnam 1883a, 1883b; Thruston 1897).

Most of the burials discovered at Rutherford-Kizer were of the stone-box variety routinely encountered at Mississippian period sites throughout the study area. True to their name, these graves were constructed of thin slabs of limestone set in a vertical manner along the sides, head, and foot of the grave shaft. Horizontally placed slabs (or capstones) were then laid across the top to complete the "box". The bottoms of these graves were prepared in a variety of ways. At times the base was lined with the same thin limestone slabs used to construct the coffin. Sherds from broken ceramic vessels (generally large jars) were also used to line the floor. However, the most common method was to leave an earthen floor. One intriguing question to ponder is whether or not these earthen floors had been originally lined with animal skins, woven mats, or other such materials that would have rapidly decayed. No evidence of such preparation has been recovered to date from any previously excavated stone-box grave within the Middle Cumberland region.

The limestone used to construct these stone-box coffins is readily available in creek beds and eroded hillsides throughout the study area (Moore and Breitburg 1998). The effort needed to dress the raw material into something useable would have been minimal due to the manner in which the limestone naturally fractures. In addition to limestone, shale was occasionally used to build stone-box graves. Coffins with shale slabs comprise a very small percentage of the stone-box sample. However, most burial sites in the Middle Cumberland region have at least one stone-box of this particular raw material.

Table 3. Summary of Human Burials Recorded During the 1993-1995 Excavations.

Burial	Burial Type	Body Position	Grave Floor	Grave Goods	Sex	Age	Comments
1	stone-box	?	?	?	?	adult?	This burial observed but not removed in Strip Block A.
2	stone-box	?	?	?	?	child	This burial observed but not removed in Strip Block A.
3	stone-box	?	?	?	?	child	This burial observed but not removed in Strip Block A.
4	stone-box	?	?	?	?	?	Long bone fragments observed but not removed, Strip Block A.
5	stone-box	?	?	?	?	?	This burial observed but not removed in Strip Block A.
6	pit	bundle	-	?	?	adult?	Stacked long bones and other skeletal elements in pit observed but not removed, Strip Block B.
7	pit	?	-	?	?	child	Cranial fragments, teeth observed but not removed, Strip Block B.
8	pit	?	-	?	?	child	Cranial fragments, teeth observed but not removed, Strip Block B.
9	stone-box	?	?	?	?	adult?	Capstones in place, observed but not removed, Strip Block B.
10	pit	?	-	?	?	adult?	This burial observed but not removed in Strip Block B.
11A	stone-box	extended	earth	none	?	10 yrs	This grave contained two individuals, Burial 11A defined in field.
11B	stone-box	unknown	earth	none	?	fetal/newborn	Burial 11B identified in laboratory.
12A	stone-box	extended	earth	none	?	2 yrs +/- 6 mo	This burial contained two individuals placed one on top of the other. Periostitis on interior surface of 12A cranium.
12B	stone-box	extended?	earth	none	?	3 yrs +/- 6 mo	This individual a bit older than 12A. Periostitis on interior suface of parietal bones.
13	pit	flexed?	-	none	F	30 yrs +/-5 yr	None.
14	stone-box	extended?	stone	none	?	fetal/newborn	None.
15	stone-box	flexed	?	none	?	4 yrs +/- 9 mo	Hypoplasia on central incisors.
16	stone-box	?	?	none	?	adult	None.
17	stone-box	?	?	none	?	1 yr +/- 6 mo	Periostitis visible on left tibia.
18	stone-box?	?	?	none	M	adult	None.
19	stone-box	?	earth	yes	?	adult	Portion of shell-tempered vessel recovered.
20	stone-box	?	stone	none	?	fetal/newborn	None.
21	stone-box	extended	stone	none	F	40 yrs +/- 5 yrs	Antemortem tooth loss, mandibular abscess P4 and M1, moderate arthritic lipping in most post-cranial bones; enamel pearl mandibular P4.
22	stone-box	extended	stone	none	F	50+ yrs	Antemortem tooth loss and resporption, osteoma above meatus, granulated articular surface of ilium.

Table 3. Summary of Human Burials Recorded During the 1993-1995 Excavations (continued).

Burial	Burial Type	Body Position	Grave Floor	Grave Goods	Sex	Age	Comments
23	pit	?	-	none	?	1 yr +/- 3 mo	None.
24	stone-box	?	stone	none	?	1 yr +/- 3 mo	None.
25	?	extended	?	none	?	11 yrs +/- 9 mo	Consultant notes unclear about this burial.
26	stone-box	extended	earth	none	?	6 yrs +/- 5 mo	Vandalized shortly after initial exposure.
27	stone-box	extended	stone	none	F	45 yrs +/- 5 yrs	Antemortem tooth loss, remaining teeth extremely worn, caries in distal cleft of 2nd mandibular molar, arthritic lipping in vertebrae (extreme in lumbar vertebrae, 13 mm osteophyte from margin).
28	stone-box	extended	earth	none	?	newborn - 6 mo	Removal notes suggest this individual was placed on stomach.
29	stone-box	extended	earth	none	?	6 yrs +/- 1 yr	Hypoplasia on maxillary incisor.
30	stone-box	?	earth	none	F	adult	Sex based on size of talus bone.
31	stone-box	extended	earth	none	M	35-40 yrs	Arthritic lipping on thoracic vertebrae. Third molars in maxillary and mandibular dentition did not erupt.
32	stone-box	extended	earth	none	M	40 yrs +/- 5 yrs	Arthritic lipping visible on 1st sacral vertebrae.
33	pit	?	?	none	?	about 3 yrs	This individual placed in a rectangular pit lined and capped with ceramic sherds. Consultant notes lack discussion and drawing.
34	stone-box	extended	ceramic	none	?	fetal/newborn	None.
35	stone-box	extended	earth	none	?	2 yrs +/- 6 mo	None.
36	stone-box	extended	stone	none	?	1 yr +/- 3 mo	None.
37	stone-box	extended	earth	none	?	3.5 yrs +/- 6 mo	None.
38	stone-box	extended	stone	none	?	5 yrs +/- 6 mo	None.
39	stone-box	extended	ceramic	none	?	9 mo +/- 2 mo	None.
40	stone-box	extended	stone	none	?	18 mo +/- 3 mo	None.
41	stone-box	extended	?	none	M	45 yrs +/- 5 yrs	Antemortem tooth loss, mandibular abscess on buccal side, extensive arthritic lipping on ulna and lumbar vertebrae, periostitis on left and right pubic symphysis.
42	stone-box	extended	?	none	M	12 yrs +/- 6 mo	Consultant notes state “partial flexing of the legs” but do not elaborate, no drawing or photograph made.
43	stone-box	extended	stone	none	F	30 yrs +/- 5 yrs	Caries noted in several teeth, slight arthritic lipping on vertebrae.
44	stone-box	extended?	earth	none	M	adult	None.
45	stone-box	?	earth	none	M?	about 35 yrs	This grave severely disturbed by backhoe and looting activity.

Table 3. Summary of Human Burials Recorded During the 1993-1995 Excavations (continued).

Burial	Burial Type	Body Position	Grave Floor	Grave Goods	Sex	Age	Comments
46	stone-box	?	?	none	M	25-30 yrs	Hypoplasia visible on several teeth, hypocementosis present on teeth roots.
47	stone-box	?	?	none	F	about 25 yrs	This grave severely disturbed by backhoe during removal.
48A	stone-box	extended	stone	none	M	30 yrs +/- 5 yrs	Two individuals placed in grave 48. No information available on the position of the individuals inside the stone-box. Burial 48A had an enamel pearl on one tooth.
48B	stone-box	extended	stone	none	?	under 16 yrs	Burial 48B aged by unfused femur epiphysis.
49	stone-box	?	?	none	?	11 yrs +/- 9 mo	None.
50	stone-box	extended	?	none	?	4 yrs +/- 9 mo	None.
51	pit	?	-	?	F	30 yrs +/- 5 yrs	Consultant notes very minimal.
52	pit	?	-	none	F	adult	Consultant notes very minimal.
53	stone-box	extended	earth	yes	?	child	Ceramic vessel placed at feet of this individual.
54	pit	?	?	?	F	25-30 yrs	Consultant notes very minimal.
55	stone-box	extended	stone	none	F	about 30 yrs	Extraneous right ulna (male) present among remains.
56	stone-box	extended	earth	none	M	35+ yrs	None.
57	stone-box	extended	earth	none	F	30 yrs +/- 5 yrs	Periostitis present on external and internal surface of cranium.
58	stone-box	extended	?	none	F	30 yrs +/- 5 yrs	Antemortem tooth loss.
59	unknown	?	?	none	M	35+ yrs	Consultant expresses confusion whether or not these skeletal elements placed in a grave or piled up by looters.
60	stone-box	extended	earth	yes	?	11 yrs +/- 9 mo	Two ceramic vessels present, one at the waist and one at feet.
61	pit	?	-	none	M	30 yrs +/- 5 yrs	Consultant notes minimal. This grave intruded upon by Burial 53. Osteomyelitis on right femur shaft (with perforations showing drainage of septic material), right femur also possibly fractured.
62	stone-box	extended	?	none	F	30 yrs +/- 5 yrs	None.
63	pit	?	-	yes	F	15 yrs +/- 6 mo	Consultant notes very minimal. One ceramic vessel present, but location not provided in notes.
64	stone-box?	?	?	none	?	adult	Consultant notes indicate grave between Burials 46 and 48.
65	stone-box	extended	stone	none	?	5 yrs +/- 9 mo	This stone-box had been placed inside the palisade trench. Cranial deformation observed on the skull of this individual.
66	pit	flexed	-	none	?	4 yrs +/- 9 mo	Hypoplasia present on central incisors.

Table 3. Summary of Human Burials Recorded During the 1993-1995 Excavations (continued).

Burial	Burial Type	Body Position	Grave Floor	Grave Goods	Sex	Age	Comments
67	stone-box	extended?	earth	none	?	5 yrs	Previously looted stone-box.
68	stone-box	?	?	none	?	?	Completely looted stone box burial with no intact skeletal remains or coffin slabs.
69	stone-box	extended	earth	none	?	adult	Previously looted stone-box.
70	stone-box	?	stone	yes	?	4 yrs	Previously looted stone-box. One calcite bead present in grave.
71	stone-box	extended	earth	none	M	adult	Previously looted stone-box.
72	stone-box	extended	earth	none	M	30 yrs +/- 5 yrs	Previously looted stone-box. Slabs of shale rather than limestone. This stone-box intruded into an earlier Woodland pit feature.
73	stone-box	extended	stone	none	F	35 yrs +/- 5 yrs	Previously looted stone-box.
74	stone-box	extended	earth	none	M	about 35 yrs	Burials 74 and 75 shared an interior side wall. Both burials previously looted. Burial 74 individual exhibited arthritic lipping on lumbar vertebrae.
75	stone-box	extended	earth	none	F	30 yrs +/- 5 yrs	See comments for Burial 74.
76	stone-box	extended?	earth?	none	M	35-40 yrs	Previously looted stone-box.
77	stone-box	extended?	earth?	none	?	adult	Previously looted stone-box.
78	stone-box	?	stone?	none	?	adult	Previously looted stone-box.
79	stone-box	extended?	stone	none	?	15 yrs +/- 6 mo	Previously looted stone-box.
80A	stone-box	extended	earth	yes	?	4 yrs	This relatively intact grave contained two individuals placed on top of one another with both heads to the east. Two ceramic vessels were placed with the individuals, one positioned near the shoulder area, and the other at the feet.
80B	stone-box	extended	earth	yes	?	4 yrs +/- 9 mo	See comments for Burial 80A.
81	stone-box	extended?	ceramic	none	M	45+ yrs	Previously looted stone-box.
82	stone-box	extended	stone	none	M	30 yrs +/- 5 yrs	Previously looted stone-box.
83	stone-box	?	?	none	M	adult	Completely destroyed by looter activity. One glass Pepsi bottle found in looter hole.
84	stone-box	extended	earth	none	M	adult	Previously looted stone-box.
85A	stone-box	extended	stone	yes	?	6 yrs +/- 9 mo	This stone-box contained two individuals that do not appear to have been buried at the same time. One ceramic bowl was found on the upper arm/shoulder area. Hypoplasia was visible on the dental crowns of Burial 85A.
85B	stone-box	extended	stone	yes	?	5 yrs +/- 9 mo	See comments from Burial 85A.

Table 3. Summary of Human Burials Recorded During the 1993-1995 Excavations (continued).

Burial	Burial Type	Body Position	Grave Floor	Grave Goods	Sex	Age	Comments
86	stone-box	extended	earth?	none	?	35-40 yrs	Severely looted stone-box.
87	stone-box	extended	earth	none	M	about 40 yrs	This was only burial that was completely intact, including the capstones. Most stones used for the coffin were dressed shale.
88	stone-box	extended	stone	none	?	3 yrs +/- 6 mo	Previously looted stone-box.
89	stone-box	extended?	earth	none	?	10 yrs +/- 9 mo	Burials 89-91 were aligned with shared side walls. All of these graves had been previously looted.
90	stone-box	extended	earth	none	M	35-40 yrs	See comments for Burial 89.
91	stone-box	extended?	stone	none	F	35-40+ yrs	See comments for Burial 89.

Two stone-box graves from Rutherford-Kizer (Burials 72 and 87) were constructed with shale. Burial 87 (from lot 85) was somewhat unique in that the entire coffin (including the capstones) was made of thin, rather large but finely crafted shale slabs. Every one of these grave slabs had been carefully dressed for a very tight fit (much tighter than the average stone-box). Another curious aspect of Burial 87 was that an additional layer of rather crude, much thicker limestone slabs had been placed on top of the nicely shaped shale capstones.

As mentioned above, 91 graves were recorded during the 40SU15 project (see Appendix D). Nearly 86% (*n*=78) of these graves were stone-boxes. This percentage may actually be higher, as several graves identified as pit burials during the 1994 removal were probably stone-boxes completely removed by looters (examples of this were observed during the 1995 removal). With this thought in mind, the remainder of the Rutherford-Kizer graves (*n*=13) were classified as pit burials.

One bundle burial was present among the 10 human graves exposed (but not removed) during the 1993 testing program. Burial 6 was initially defined as a rather small, somewhat oval pit feature in Strip Block B. Excavation of this feature soon uncovered stacked long bones and other skeletal elements. Once the remains were positively identified as human, all work on this feature stopped. The burial was then photographed and covered over with soil without any additional investigation. Burial 6 remains intact within the large greenspace.

A total of 86 people were removed from 81 graves during the 1994 and 1995 burial removal projects. Almost 90% (*n*=77) of these individuals were placed in stone- boxes. The vast majority of people were interred in an extended, face up position. One exception was Burial 15, a capped, rectangular stone-box with the flexed remains of a young child.

The most peculiar grave identified and removed from 40SU15 has to be Burial 65. The extraordinary aspect of this stone-box burial lies not in its construction or content, but rather its location. This intact stone-box contained the remains of a young child and had been constructed inside the exterior palisade trench. The grave was found during the removal of a large ceramic vessel section that happened to be immediately above the capstones. The vessel section (observed inside the palisade trench) was very fragile and had to be taken out in a block. The capstones of Burial 65 were struck with the spade while undercutting the block for removal. Such a fortuitous discovery was truly amazing, considering the fact that subsequent investigation of the remaining section of palisade trench yielded no additional graves.

One individual per stone-box was the general rule at Rutherford-Kizer (93.1% of the removed stone-box sample). Five stone-boxes (Burials 11, 12, 48, 80, and 85) contained the remains of two individuals. Four of these graves (Burials 11, 12, 80, and 85) held only young children. Burial 48, on the other hand, contained one adult male and one adolescent of unknown sex.

Most graves (*n*=77) removed from the site area had been previously subjected to some type of destructive action. Only four (Burials 15, 21, 65, and 87) were determined to be intact prior to their removal. Relic collecting, plowing, and burrowing animals were recognized as the

main culprits. Long term relic collecting caused the most direct damage to the skeletal remains. Vandals in search of pottery and other exotic artifacts caused quite a range of injury to the skeletal elements. Such digging varied anywhere from total grave destruction (complete removal of stones as well as bones) to targeting specific areas within the grave (mainly head, waist, and feet) for relics. Plowing was another long-term problem, although damage prior to the archaeological investigation was generally limited to removal of the capstones and at times the top of the skeleton. Deep plowing during the summer 1994 consultant investigation was observed to have further damaged a number of graves in what is now the large greenspace. Finally, burrowing animals managed to disturb several graves by digging tunnels through and under the skeletal remains.

Numerous exotic artifacts (including marine shell gorgets, ceramic effigy vessels, and mica sheets) have been previously recovered from the Rutherford-Kizer site area over the past century. The editors believe that most, if not all, of these originated from burial contexts. Despite this fact, the 1994 and 1995 burial removals exhumed very few graves with associated burials goods. The extensive digging by relic collectors undoubtedly had some influence upon this result. Only seven (8.6%) of the 81 removed graves (Burials 19, 53, 60, 63, 70, 80, and 85) contained some type of burial association. Ceramic vessels were recovered from Burials 19, 53, 60, 63, 80, and 85. Burial 70 yielded one calcite/fluorite bead despite being extensively disturbed by looter activity (Moore et al. 2014).

Demography

Accurate age and sex determination of individuals in a skeletal sample are vital to all areas of analysis. These judgments aid in the interpretation of patterns of morphological variation between individuals and ultimately populations, thus furthering the illumination of an individual's or population's lifestyle, health status, and general quality of life. The burials from Rutherford-Kizer were generally fragmented and often incomplete. Several graves did yield complete to nearly complete skeletons. However, the overall fair to (at times) poor condition of the assemblage can be attributed to extensive relic collecting and plowing activity. Numerous graves (especially those recovered from lot 85) contained just a few elements, and often from disturbed contexts. Determinations of sex and age were often based upon long bone fragment measurements and teeth.

Numerous attempts have been made to develop an accurate method to determine the sex of immature skeletal remains less than 15 years of age; however, there has been little success. Thus sex identification of subadult skeletal material is somewhat inaccurate and unreliable at this time (Bass 1971; Krogman and Iscan 1986; Ubelaker 1978). The adult sex determination techniques applied today have been remarkably accurate in the assessment of sex for skeletal material from individuals of known sex. It is with confidence then, that these techniques are applied to prehistoric skeletal remains in order to determine the sex of an individual. Sex determination of the 40SU15 skeletal material was only possible for less than half (46.5%, 40 of 86 individuals) due to the condition of the remains.

Table 4 presents the life table profile of the Rutherford-Kizer collection, with comparative demographic information from the Gordontown (40DV6), Moss-Wright (40SU20), and Averbuch (40DV60) sites provided in Tables 5–7 (Klippel and Bass 1984; Moore et al. 2006; Tennessee Division of Archaeology 1996). Survivorship curves constructed from these demographic data are presented in Figure 45. As shown in Table 4, it is clear that just over one-half of the sample (52.8%, 37 of 70 individuals) is represented by subadult individuals 16 years of age or younger, with the greatest percentage represented by children in the birth to less than 5 year age category (*n*=24).

This frequency of subadults falls within the upper middle range of contemporaneous Middle Cumberland human skeletal populations excavated at Moss-Wright (41%, 37 of 90 individuals), Averbuch (48%, 426 of 886 individuals), and Gordontown (56.6%, 57 of 94 individuals). The highest frequency of adults fall into the 30–40 year age category (*n*=26). For the frequency of interments identified by sex, adult males (*n*=21) somewhat out number adult females (*n*=17). Other vital statistics and comparisons are as follows.

Life expectancy at birth was 20.2 years at Rutherford-Kizer, compared with 18.8 years at Gordontown, 20.0 years at Averbuch, and 24.6 years at Moss-Wright. The percentage of individuals dying at birth to four years was 34% at Rutherford-Kizer, compared with 23% at Moss-Wright, 30% at Averbuch, and 45% at Gordontown. The probability of dying after the 15 to 19 year age interval was significantly reduced until the 30–34 year age interval, after which the probability of life expectancy ranges from 20% to 30%. The crude mortality rate or the average number of people dying per 1000 persons is 29 at Rutherford-Kizer. This compares a crude mortality rate of 33 at Averbuch, 43 at Moss-Wright, and 53 at Gordontown.

Table 4. Life Table for the Rutherford-Kizer Site, 40SU15.

Age Interval (x)	Number of Deaths (Dx)	Percent of Deaths (dx)	Survivors Entering (lx)	Probability of Death (qx)	Total Years Lived (Lx)	Total Years After Lifetime (Tx)	Life Expectancy (ex)
0–4	24	34.29	100.00	0.34	414.29	2021.43	20.21
5–9	5	7.14	65.71	0.11	310.71	1607.14	24.46
10–14	6	8.57	58.57	0.15	271.43	1296.43	22.13
15–19	2	2.86	50.00	0.06	242.86	1025.00	20.50
20–24	0	0.00	47.14	0.00	235.71	782.14	16.59
25–29	3	4.29	47.14	0.09	225.00	546.43	11.59
30–34	12	17.14	42.86	0.40	171.43	321.43	7.50
35–39	11	15.71	25.71	0.61	89.29	150.00	5.83
40–44	3	4.29	10.00	0.43	39.29	60.71	6.07
45–49	3	4.29	5.71	0.75	17.86	21.43	3.75
50–54	1	1.43	1.43	1.00	3.57	3.57	2.50
55–59	0	0.00	0.00	0.00	0.00	0.00	5.00
60+	0	0.00	0.00	0.00	0.00	0.00	0.00
Total	**70**						

Table 5. Life Table for the Gordontown Site, 40DV6.

Age Interval (x)	Number of Death (Dx)	Percent of Deaths (dx)	Survivors Entering (lx)	Probability of Death (qx)	Total Years Lived (Lx)	Total Years After Lifetime (Tx)	Life Expectancy (ex)
0–4	42	44.68	100.00	0.45	388.30	1882.95	18.83
5–9	6	6.38	55.32	0.12	260.65	1494.65	27.02
10–14	4	4.26	48.94	0.09	234.05	1234.00	25.21
15–19	5	5.32	44.68	0.12	210.10	999.95	22.38
20–24	1	1.06	39.36	0.03	194.15	789.85	20.07
25–29	0	0.00	38.30	0.00	191.50	595.70	15.55
30–34	5	5.32	38.30	0.14	178.20	404.20	10.55
35–39	15	15.96	32.98	0.48	125.00	226.00	6.85
40–44	7	7.45	17.02	0.44	66.48	101.00	5.93
45–49	7	7.45	9.57	0.78	29.22	34.52	3.61
50–54	2	2.13	2.12	1.00	5.30	5.30	2.50
55+	0	0.00	0.00	0.00	0.00	0.00	0.00
Total	**94**						

Table 6. Life Table for the Moss-Wright Site, 40SU20.

Age Interval (x)	Number of Deaths (Dx)	Percent of Deaths (dx)	Survivors Entering (lx)	Probability of Death (qx)	Total Years Lived (Lx)	Total Years After Lifetime (Tx)	Life Expectancy (ex)
0–4	21	23.33	100.00	0.23	441.67	2461.11	24.61
5–9	14	15.56	76.67	0.20	344.44	2019.44	26.34
10–14	1	1.11	61.11	0.02	302.78	1675.00	27.41
15–19	1	1.11	60.00	0.02	297.22	1372.22	22.87
20–24	4	4.44	58.89	0.08	283.33	1075.00	18.25
25–29	6	6.67	54.44	0.12	255.56	791.67	14.54
30–34	4	4.44	47.78	0.09	227.78	536.11	11.22
35–39	22	24.44	43.33	0.56	155.56	308.33	7.12
40–44	7	7.78	18.89	0.41	75.00	152.78	8.09
45–49	1	1.11	11.11	0.10	52.78	77.78	7.00
50–54	9	10.00	10.00	1.00	25.00	25.00	2.50
55+	0	0.00	0.00	0.00	0.00	0.00	0.00
Total	**90**						

Table 7. Life Table for the Averbuch Site, 40DV60.

Age Interval (x)	Number of Deaths (Dx)	Percent of Deaths (dx)	Survivors Entering (lx)	Probability of Death (qx)	Total Years Lived (Lx)	Total Years After Lifetime (Tx)	Life Expectancy (ex)
0–4	268	30.25	100.00	0.30	424.38	1994.92	19.95
5–9	54	6.09	69.75	0.09	333.52	1570.54	22.52
10–14	25	2.82	63.66	0.04	311.23	1237.02	19.43
15–19	79	8.92	60.84	0.15	281.88	925.79	15.22
20–24	152	17.16	51.92	0.33	216.70	643.91	12.40
25–29	93	10.50	34.76	0.30	147.57	427.20	12.29
30–34	64	7.22	24.27	0.30	103.27	279.63	11.52
35–39	49	5.53	17.04	0.32	71.39	176.35	10.35
40–44	30	3.39	11.51	0.29	49.10	104.97	9.12
45–49	30	3.39	8.13	0.42	32.17	55.87	6.88
50–54	21	2.37	4.74	0.50	17.78	23.70	5.00
55–59	21	2.37	2.37	1.00	5.93	5.93	2.50
60+	0	0.00	0.00	0.00	0.00	0.00	0.00
Total	**886**						

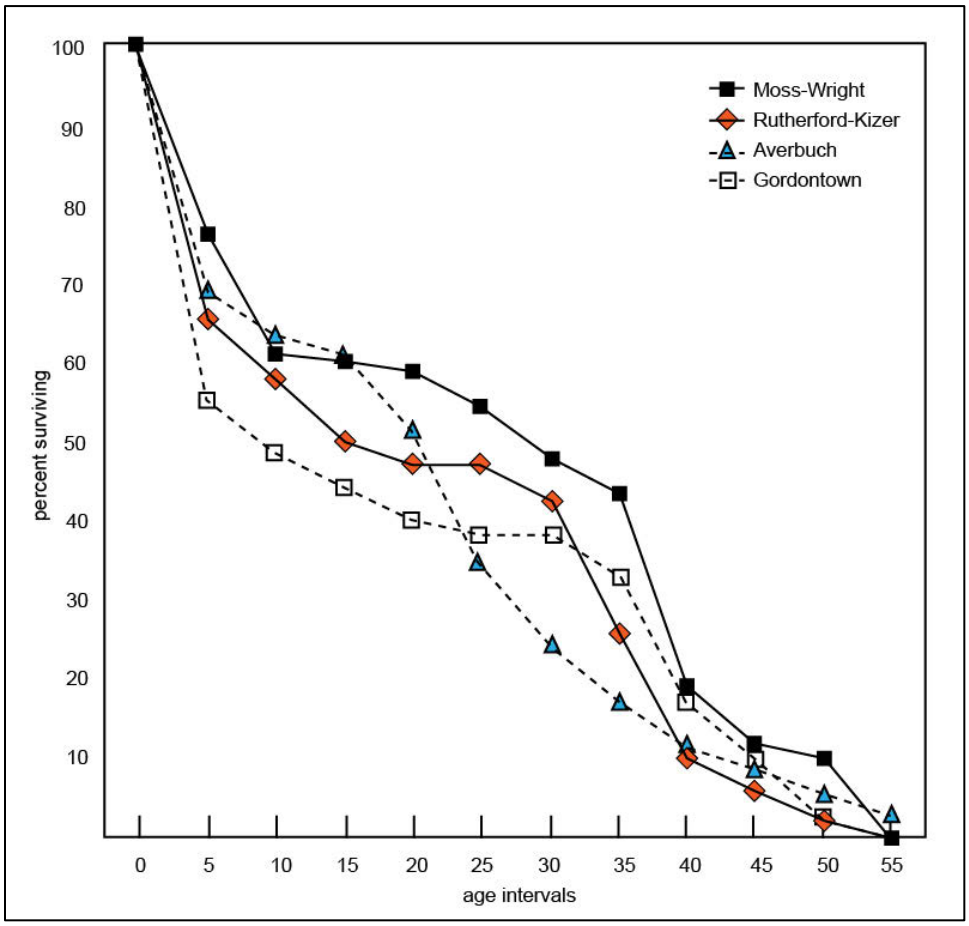

Figure 45. Mississippian survivorship.

Pathology

Oral and dental pathologies were present in the cases of four children, five adult females, and two adult males. Children generally exhibit little in the way of common dental diseases, whereas adults often have a variety of pathologic oral and dental conditions. Among children, hypoplasia was displayed on the incisors of Burial 15 (4 years +/- 9months), Burial 29 (6 years +/- 1 year), Burial 66 (4 years +/- 9 months), and Burial 85A (6 years +/- 9 months).

Hypoplasia appears on the dentition of one adult male (Burial 46, 25–30 years). Two adult females had cavities (Burials 27 and 43). Tooth loss was visible among four adult females (Burials 21, 22, 27, and 58) and one adult male (Burial 41) over 30 years of age. One female 40 years +/- 5 years (Burial 21) and one male 45 years +/- 5 years (Burial 41) displayed mandibular alveolar abscesses.

Infectious Disease

Evidence of nonspecific infections of bone caused by various kinds of microorganisms (including some form of osteomyelitis) is usually expressed as periostitis or an inflammation of the periosteum. Two very young children show evidence of cranial lesions. Burials 12A and 12B (2 years +/- 6 months and 3 years +/- 6 months, respectively) display periostic lesions along the interior cranium. One infant (Burial 17) displays periostitis on the postcranial skeleton. This individual, 1 year +/- 6 months at the time of death, showed periostitis on the left tibia shaft.

One adult female and two adult males showed signs of periostitis at the time of their death. Burial 57 (female, 30 year +/- 5 years) exhibited periostitis along the exterior and interior surface of the cranium. Burial 41 (male, 45 years +/- 5 years) displayed periostitis along the left and right pubic symphysis. Burial 61 (male, 30 years +/- 5 years) had osteomyelitis on the right femur shaft. Extensive perforations showing drainage of septic material were visible along the shaft.

Tumors

Osteomas are one of the most common benign bone tumors or tumor-like processes found in human populations, and are characterized by raised areas of dense bone found on the cranium (Steinbock 1976:325–329). They are small, solitary projections that are circular dome-shaped or flattened in appearance. An adult female (Burial 22, 50+ years) had one osteoma above the external auditory meatus, or in the area of the ear.

Osteoarthritis and Osteophytosis

Osteoarthritis and vertebral osteophytosis appear in seven individuals 30 years of age and upward. Three female (Burials 21, 27, and 43) and four male (Burials 31, 32, 41, and 74) skeletons exhibited evidence of arthritic lipping, especially along the vertebrae. Other affected

areas included the ulna and sacrum. Burial 21 (female, 40 years +/- 5 years) displayed arthritic lipping in most of the post-cranial bones. Burial 27 (female, 45 years +/- 5 years) exhibited extreme lipping on the lumbar vertebrae. One osteophyte measured 13 mm from the vertebrae margin.

Trauma

Only one potential case of bone trauma was recorded from 40SU15. Burial 61 (male, 30 years +/- 5 years) had a possible fracture to the right femur shaft. This particular bone was also severely infected (possibly due to the fracture?) which inhibited the positive identification of a break.

Discussion

The Rutherford-Kizer skeletal assemblage represented a potentially valuable addition to the growing data base to evaluate the general health and standard of living for late prehistoric residents in the Nashville Basin. Unfortunately, the damage sustained by the skeletal remains curtailed the ability of this site assemblage to add anything new to our current understanding of disease, nutritional deficiencies, personal injuries, or warfare for Middle Cumberland Mississippian populations. Previous studies at such sites as Gordontown (40DV6) and Averbuch (40DV60) characterized these populations as stressed by high infant mortality and low adult survivorship, with manifestations of infectious pathology, anemia and trauma (Eisenberg 1986; Moore and Breitburg 1998; Moore et al. 2006).

Information obtained from the Rutherford-Kizer skeletons generally support these characterizations, especially the high infant mortality and low adult survivorship. Over 34% of the 40SU15 population died before five years of age. This compares with 23.3% from Moss-Wright, 30.2% from Averbuch, and 44.6% from Gordontown.

Previous work has suggested that late prehistoric towns were crowded, with unclean conditions providing an opportunity for infectious diseases (tuberculosis, for example) to develop as an endemic condition. An over-reliance on maize appears to have contributed to the general bad health of these populations (Buikstra et al. 1988). Added to these stressful conditions was the threat of violence (scalping, decapitation, etc.).

The skeletal remains from Rutherford-Kizer were not particularly insightful regarding these stress indicators. Again, this lack of information can be attributed to the level of previous grave disturbance. Many of the skeletal elements necessary for such determinations were simply not available. Relatively few individuals were observed with notable pathologies, disease, or trauma. Only five cases of an infectious disease (one extremely severe) were observed. In a related note, only one possible trauma was identified, and this was the same individual with the severe infection. No evidence of tuberculosis or other such conditions were noted in this assemblage. In addition, no evidence of violence, such as scalping or decapitation, was observed.

VII. LITHIC ARTIFACT DESCRIPTIONS

Michael C. Moore

A moderate sample (*n*=5,964) of chipped, ground, and pecked stone artifacts was recovered from the 1993–1995 Rutherford-Kizer site investigations. These items were retrieved from a variety of contexts, including refuse-filled pits, hearths, burials, and the site surface. Each artifact was placed into one of 25 categories based upon distinct morphological or functional characteristics. These categories were tested cobble, core, thick biface, thin biface, primary flake, secondary flake, blank flake, blocky debris, modified/utilized flake, rejuvenation flake, projectile point, knife, drill, scraper, chisel, celt, discoidal, disk, bead, gorget, mano, metate, abrader, unidentified groundstone, and hammerstone. Specific provenience information and artifact counts for each category are presented in Appendix E.

Chipped Stone

Tested Cobbles (*n*=6)

Few examples of this category were observed within the lithic assemblage. Tested cobbles represent those small to moderate size chert cobbles that have one or two flakes removed in a rather random fashion to examine the quality of the objective piece. Four of the six tested cobbles were recovered from the site surface. The other two specimens were found in refuse-filled pits (Features 101 and 194). All of these artifacts were local resources.

Cores (*n*=385)

Chert cobbles and cobble sections that displayed regular patterns of flake removal were classified as cores. The objective of reducing these cobbles and cobble sections was the acquisition of flakes that could be further modified, rather than working the cobble itself into a tool. Nearly all of the 40SU15 cores were rather small (expended?) cobble fragments with multi-directional flake scars. Some moderate size examples were also observed. One blade core recovered from the surface (southeast site area near lot 85) did exhibit a prepared platform with several flakes removed in a sequential order. No microblade or bipolar cores were present in this assemblage of locally available cherts.

Thick Bifaces (*n*=50; Figure 46)

Thick bifaces comprise moderate to large cobbles or tabular pieces that have been bifacially worked and minimally shaped. Items placed in this category display large flake scars, thick cross-sections, and sinuous edges. Step and hinge fractures are prominent on the lateral edges of numerous specimens. Several thick bifaces were fractured by end shock. Cortex is visible on many of these artifacts. One biface retrieved from the surface was made of Dover chert.

Figure 46. Biface cache, lot 85.

A cache of two thick bifaces was recovered from Lot 85 immediately adjacent to a stone-box grave (Figure 46). These stacked items were designated Feature 742, and are likely the remnants of a larger cache subsequently disturbed during construction of the stone box or possibly by modern activity. Both artifacts were manufactured from tabular sections of Ft. Payne chert, with quarry type cortex visible along the ends of both specimens. One biface measures 157.4 mm long, 79.8 mm wide, and 22.3 mm thick, while the second measures 143.5 mm long, 73.4 mm wide, and 25.7 mm thick.

Thin Bifaces (*n*=42)

Thin bifaces are the product of additional reduction and shaping of thick bifaces, and exhibit much thinner cross-sections and less sinuous edges. The flake scars are considerably smaller with little to no cortex left on the biface. One specimen of Dover chert was recovered from Feature20.

Flakes (*n*=4,424)

This category includes all unmodified flakes created by the manufacture and maintenance of chipped stone artifacts, and have been classified based upon a reduction sequence and the amount of cortex remaining on the dorsal surface. Primary flakes (*n*=207) have cortex over their entire dorsal surface, whereas secondary flakes (*n*=932) exhibit less than 90% cortex over their dorsal surface. Blank flakes (*n*=3,285) have no cortex except occasionally

over their striking platform. Most flakes from 40SU15 were made from locally available chert. Dover chert (*n*=76) accounted for 1.7% of the sample, including one primary, 13 secondary, and 62 blank flakes. Two blank flakes of exotic Burlington chert were also recovered from the eastern site area (in disturbed contexts).

Blocky Debris (*n*=694)

Angular, blocky fragments produced during chipped stone tool manufacture or maintenance activities comprise this category. Blocky debris often occurs as shatter during percussion flaking. Dover chert comprised less than 1% (*n*=3) of this sample.

Modified/Utilized Flakes (*n*=17)

Flakes with intentional, consistent and even flaking along one or more lateral edges were placed in this category. Four functional subcategories (scraper, cutting tool, spokeshave, and perforator) were identified based upon morphological and wear characteristics. Scraping tools display steep, unifacial flaking along one or more edges with fine unifacial microflaking along the same edge. These tools differ from formal scrapers in that they have been less extensively chipped and shaped. Cutting tools are retouched flakes with fine bifacial microflaking along the same edge. Spokeshaves are flakes that exhibit a unifacially retouched, concave edge. Perforators comprise those flakes with a small, bifacially retouched projection along one lateral edge.

Nearly two-thirds (*n*=10) of the modified flake sample were scraping tools, with one made from a primary flake, two from secondary flakes, and seven from blank flakes. Three of the blank flake scrapers were made from Dover chert. Five flakes (one secondary, four blank) were designated as cutting tools. One blank flake spokeshave and one secondary flake perforator comprise the rest of the category.

Rejuvenation Flakes (*n*=84)

Rejuvenation flakes have highly polished dorsal surfaces and generally originate from hoe, chisel, or celt resharpening activities. Over 90% (*n*=76) of these artifacts were made of Dover chert. Another six flakes were made from locally available cherts, with the remaining two specimens made of limestone.

Projectile Points (*n*=141; Table 8; Figures 47 and 48)

This functional category includes those notched and unnotched bifaces interpreted as dart and arrow points. These points were classified by morphological characteristics, with previously established type names used when possible (Cambron and Hulse 1983; Justice 1987). Most of the identified projectile points were recovered from the site surface. Other specimens were found in refuse-filled pits and stone-box grave fill (see Table 8).

Table 8. Provenience and Measurements of Identified Projectile Points. (measurements in mm)

Point Type	Provenience	Total Length	Maximum Width	Maximum Thick	Proximal Haft Width	Distal Haft Width	Blade Base Width	Haft Length
Adena	Burial 70, Lot 85	38.88*	33.50*	8.85	14.78	15.23	33.50*	8.32
Bakers Creek	Feature 36	42.86	18.80*	9.14	15.91	18.01*	18.80*	11.61
Bakers Creek	General Surface, Lot 85	39.44*	23.83*	5.90	16.38	23.83*	22.97	14.78
Benton	General Surface	49.28*	33.57	9.89	23.45	25.09	33.57	12.90
Benton	General Surface	36.22*	27.79*	7.49	16.36*	16.18*	27.79*	8.47
Cotaco Creek	Strip Block B, General Collection	57.37*	39.25*	7.02	17.05	14.31	39.25*	10.46
Eva-like	Feature 14 (NE 1/4)	50.00*	26.60	7.57	15.64	19.02	26.60	13.00
Eva-like	Burial 70, Lot 85	39.23*	27.82	8.48	19.62	19.20*	27.82	16.17*
Jacks Reef Pentagonal	General Surface	32.15	18.36	4.23	16.88	13.13	18.36	11.90
Kirk Corner-Notched	General Surface	56.31	31.42	7.51	15.75	14.91*	31.42	12.14
Kirk Corner-Notched	General Surface	34.07*	28.97*	6.98	16.82	12.34*	28.97*	11.25
Kirk Corner-Notched	Feature 36	51.61	30.37*	7.42	19.49	19.83*	30.37*	9.23
Madison	General Surface	39.25	16.51	6.78	-	-	-	-
Madison	General Surface	29.91	14.01	2.67	-	-	-	-
Madison	General Surface	25.71*	14.08	4.31	-	-	-	-
Madison	General Surface	17.98*	17.93	5.26	-	-	-	-
Madison	General Surface	31.04	17.8	4.05	-	-	-	-
Madison	General Surface	37.24	13.84	6.09	-	-	-	-
Madison	General Surface	19.37	11.61	3.29	-	-	-	-
Madison	General Surface	30.37*	17.83*	7.22	-	-	-	-
Madison	General Surface	23.60*	16.58	5.67	-	-	-	-
Madison	General Surface	20.83*	14.17*	4.77	-	-	-	-
Madison	Strip Block C, General Collection	18.39*	19.82	5.03	-	-	-	-
Madison	Plow Strip B4	37.90	15.39	7.47	-	-	-	-
Madison	Plow Strip C7	16.01*	14.18	4.64	-	-	-	-
Madison	Plow Strip D5	30.76*	17.38	5.15	-	-	-	-
Madison	Plow Strip D6	21.73*	19.99	5.83	-	-	-	-
Madison	Plow Strip E5	29.71	11.64*	4.02	-	-	-	-
Madison	Plow Strip E6	31.38*	17.32	5.68	-	-	-	-
Madison	Plow Strip E6	32.24*	15.73	7.36	-	-	-	-
Madison	Plow Strip E8	26.48*	14.77	5.17	-	-	-	-
Madison	Plow Strip F5	34.36	13.15	4.92	-	-	-	-
Madison	Plow Strip F6	25.85*	18.04*	3.89	-	-	-	-
Madison	Plow Strip F6	19.42*	14.27	5.09	-	-	-	-
Madison	Plow Strip G7	21.56*	14.98	3.32	-	-	-	-
Madison	Plow Strip N9	26.02	17.02	4.60	-	-	-	-
Madison	Backhoe Trench K	37.28	14.23	3.62	-	-	-	-

Table 8. Provenience and Measurements of Identified Projectile Points. (continued)

Point Type	Provenience	Total Length	Maximum Width	Maximum Thick	Proximal Haft Width	Distal Haft Width	Blade Base Width	Haft Length
Madison	Backhoe Trench K	25.34	14.17	4.62	-	-	-	-
Madison	Feature 12	14.53*	15.75	4.40	-	-	-	-
Madison	Feature 14 (NE 1/4)	27.48	17.60	3.57	-	-	-	-
Madison	Feature 15	25.61*	14.88*	12.26*	-	-	-	-
Madison	Feature 15	21.12*	17.97	6.15	-	-	-	-
Madison	Fill above Feature 20	35.02	14.31	4.01	-	-	-	-
Madison	Fill above Feature 20	35.57*	17.88	5.78	-	-	-	-
Madison	Feature 36	31.11	15.77	4.70	-	-	-	-
Madison	Feature 36	29.54*	12.05	6.67	-	-	-	-
Madison	Feature 101	39.59	17.91	4.86	-	-	-	-
Madison	Feature 101	21.71*	17.96	5.23	-	-	-	-
Madison	Feature 101	19.49*	11.56	4.46	-	-	-	-
Moderate size triangular	General Surface	46.33*	22.61	8.63	-	-	-	-
Moderate size triangular	General Surface	28.82*	26.79	7.92	-	-	-	-
Moderate size triangular	General Surface	45.05	31.42	7.51	-	-	-	-
Moderate size triangular	Strip Block B, General Collection	22.57*	24.64	8.77	-	-	-	-
Moderate size triangular	Strip Block B, General Collection	33.84*	33.07	10.15	-	-	-	-
Moderate size triangular	Strip Block B, General Collection	37.73*	32.00	10.46	-	-	-	-
Moderate size triangular	Strip Block B, General Collection	69.23	24.76	10.34	-	-	-	-
Moderate size triangular	Strip Block B, General Collection	48.65	18.09	5.88	-	-	-	-
Moderate-size triangular	Plow Strip B6	48.97	21.30	11.54	-	-	-	-
Moderate-size triangular	Plow Strip F6	36.82*	22.93	7.77	-	-	-	-
Moderate-size triangular	Feature 143	61.78	22.91*	8.10	-	-	-	-
Moderate-size triangular	Feature 194	19.25*	21.80	3.64	-	-	-	-
Moderate-size triangular	Feature 880	23.99*	23.54	6.11	-	-	-	-
Motley	General Surface	34.90*	24.65	7.53	17.20	24.65	24.62	14.24
Motley	Feature 14 (NE 1/4)	51.71	30.35	8.00	10.77	9.59*	30.35	8.97
Motley	General Surface	20.03*	19.32	4.69	13.50	19.32	16.64*	14.43
Motley	Feature 101	25.15*	20.01*	8.70	12.58	14.00*	19.69*	13.59
Motley	Feature 880	40.11	23.40	8.35	14.80	23.40	23.30	14.10
Sand Mountain	Plow Strip D7	17.36*	12.80	2.90	-	-	-	-
Sand Mountain	Plow Strip G3	27.19*	17.36	4.76	-	-	-	-
Turkey-tail	General Surface, Lot 85	71.74*	25.87*	7.70	18.13	6.43	25.87*	28.40
Turkey-tail	Burial 72, Lot 85	35.22*	22.83	7.09	17.61	8.30	22.83	21.57

* = broken.

A wide variety of styles were represented in the 71 points that could be assigned to a defined type. These types include Adena, Bakers Creek, Benton, Cotaco Creek, Eva-like, Kirk Corner-Notched, Madison, moderate-size triangular, Motley, Sand Mountain, and Turkey-tail. The remainder of the projectile point sample (*n*=70) consisted of unidentified tip, midsection, and stem fragments.

Although the primary site occupation dates to the Mississippian period, many (*n*=32) of the identified points are associated with earlier Early Archaic through possibly late Woodland occupations (Figure 47). This situation is not unusual as many Mississippian sites within the study area yield high percentages of earlier projectile points. The presence of these points is usually attributed to prior use or habitation of the site area by native groups. In some cases, however, these earlier points appear to have been collected by the later Mississippian residents and reworked for their needs (Moore and Breitburg 1998). Thirty-nine projectile points (Madison, Sand Mountain) can be attributed to the Mississippian occupation at Rutherford-Kizer (Figure 48).

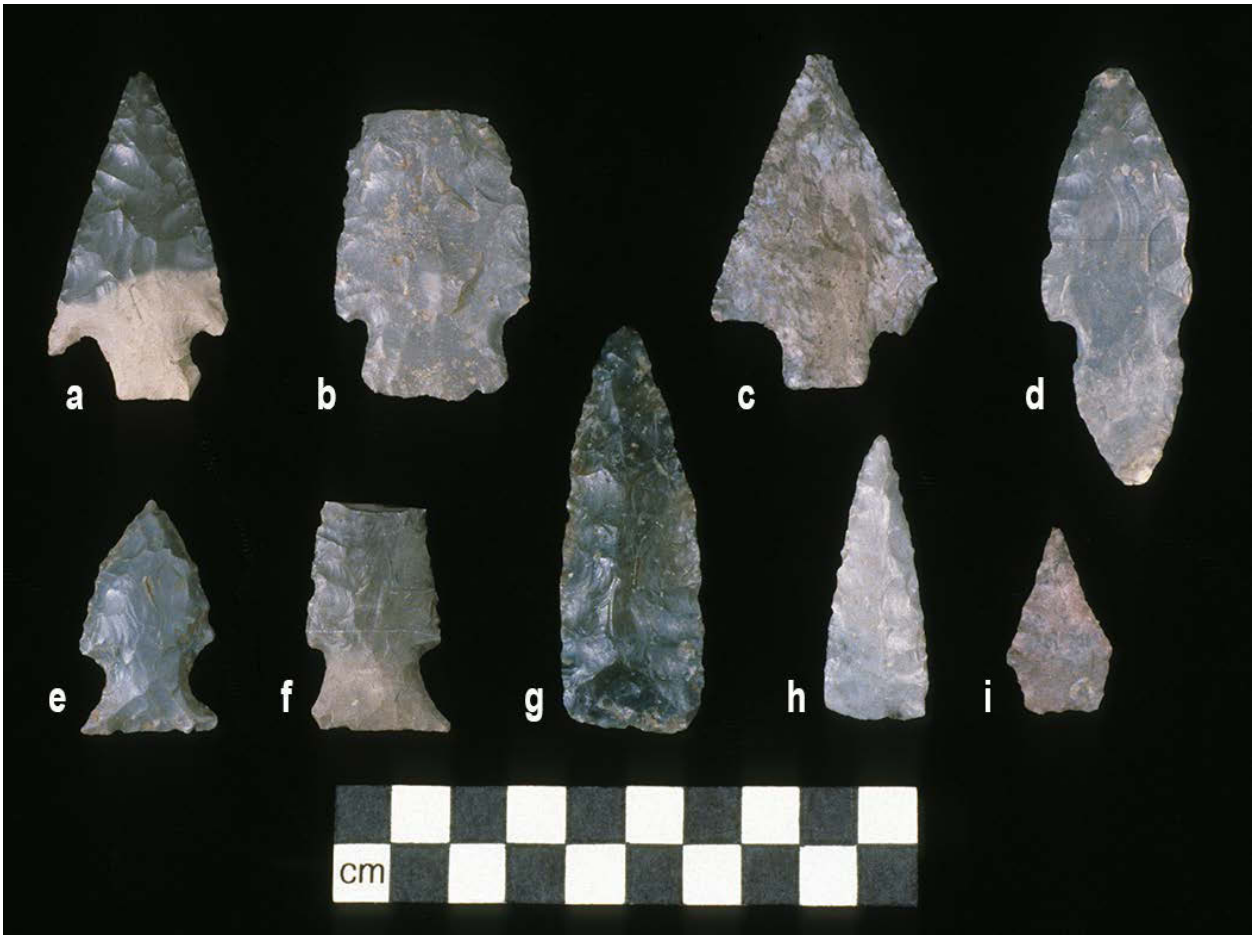

Figure 47. Selected dart points recovered from 40SU15: (a) Kirk Corner-Notched; (b) Benton; (c) Cotaco Creek; (d) Turkey-tail; (e) Motley; (f) Bakers Creek; (g-h) moderate-size triangular; (i) Jacks Reef Pentagonal.

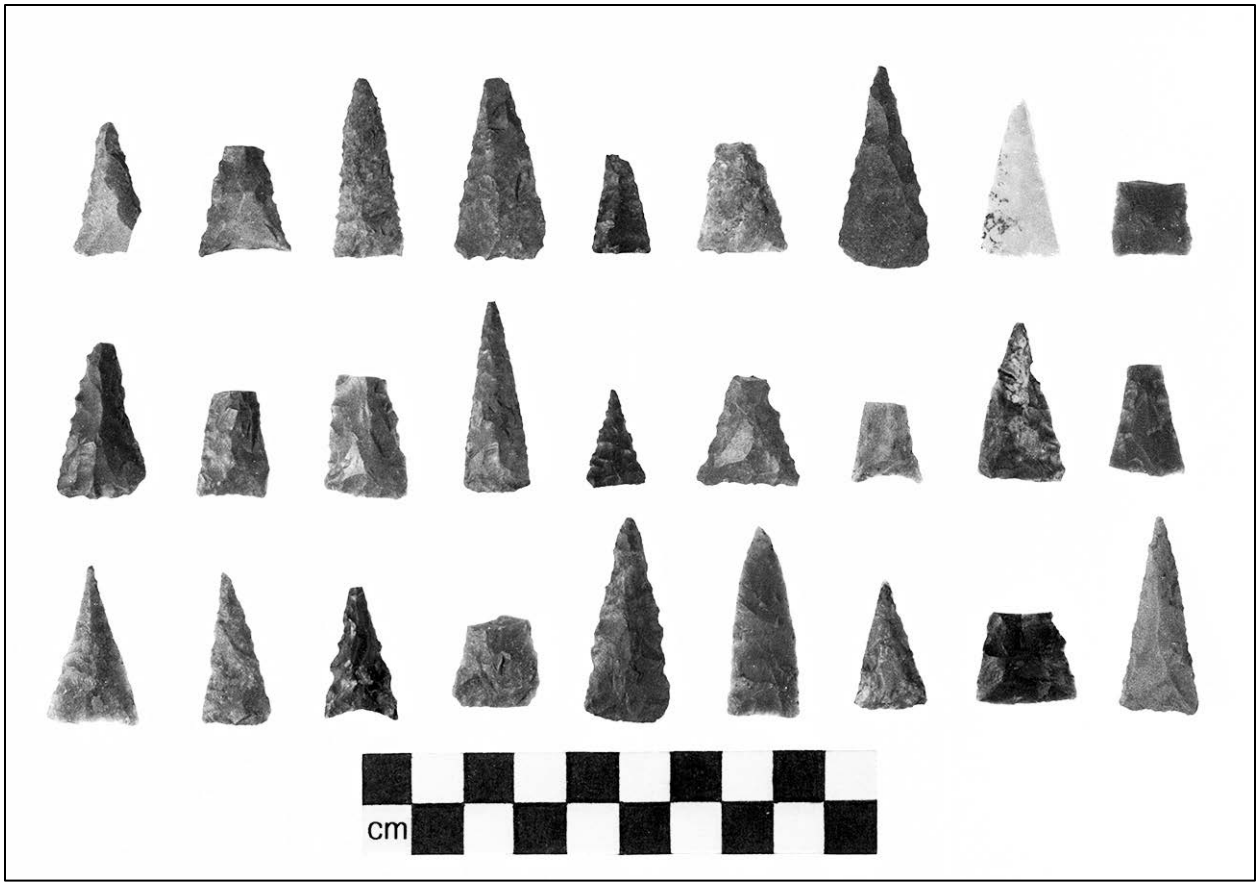

Figure 48. Small triangular points recovered from 40SU15.

Non-local materials account for a small percentage of the projectile point sample. Four unidentified point fragments (one from Feature 20, one from Feature 36, two from the surface) were made of Dover chert. Two other items (one Madison point from Feature 36 and one unidentified point fragment from the surface) were manufactured from Burlington chert.

Knives (*n*=2)

Both artifacts assigned to this category consist of well-crafted, lanceolate blade fragments with somewhat triangular plan views and bifacial microflaking along their lateral edges. One sizeable item of Dover chert from the site surface, despite missing the distal end and portions of the base, measured (at least) 87.4 mm long, 40.4 mm wide, and 13.0 mm thick. The lateral edges of this knife were a bit sinuous, possibly due to attempted resharpening actions.

A second knife made from local Ft. Payne chert was also recovered from the site surface. This fragment was came from a more narrow and thinner (7.0 mm) specimen.

Drills (*n*=5)

This category contains those bifacially worked tools used for drilling holes in a variety of materials, including wood, bone, shell, animal hides, and plants. Three of the five specimens

from 40SU15 comprise very thin (3.3 to 6.1 mm) biface fragments with rounded(?) bases and slender (6.0 to 7.2 mm), parallel sided bits. A fourth drill displays an oval to rounded base that is much thicker (12.7 mm) than the previously mentioned examples. The bit is also broader (10.7 mm) with contracting rather than parallel sides. The fifth example is a small triangular projectile point with the distal tip reworked into an alternate beveled drill bit. All items were made of locally available cherts.

Scraper (*n*=1)

Artifacts representative of this category were conspicuously absent from the Rutherford-Kizer assemblage. The only scraper recovered during the investigations was a slender, lanceolate fragment of locally available chert that had been unifacially flaked along both lateral edges. This surface collected item may comprise the distal end of a "rat tail" scraper often attributed to very early prehistoric groups.

Chisels (*n*=25; Figure 49)

These specialized woodworking implements comprise the second most common tool category from 40SU15. Chisels are bifacially flaked but exhibit a distinctive plano-convex cross-section. Bit ends are generally straight and heavily polished. Lateral edges can also display variable amounts of polish. Some specimens may be entirely smoothed, although the flake scars are still visible. These tools vary in size, which is likely a result of continuous tool resharpening as well as craftsman needs.

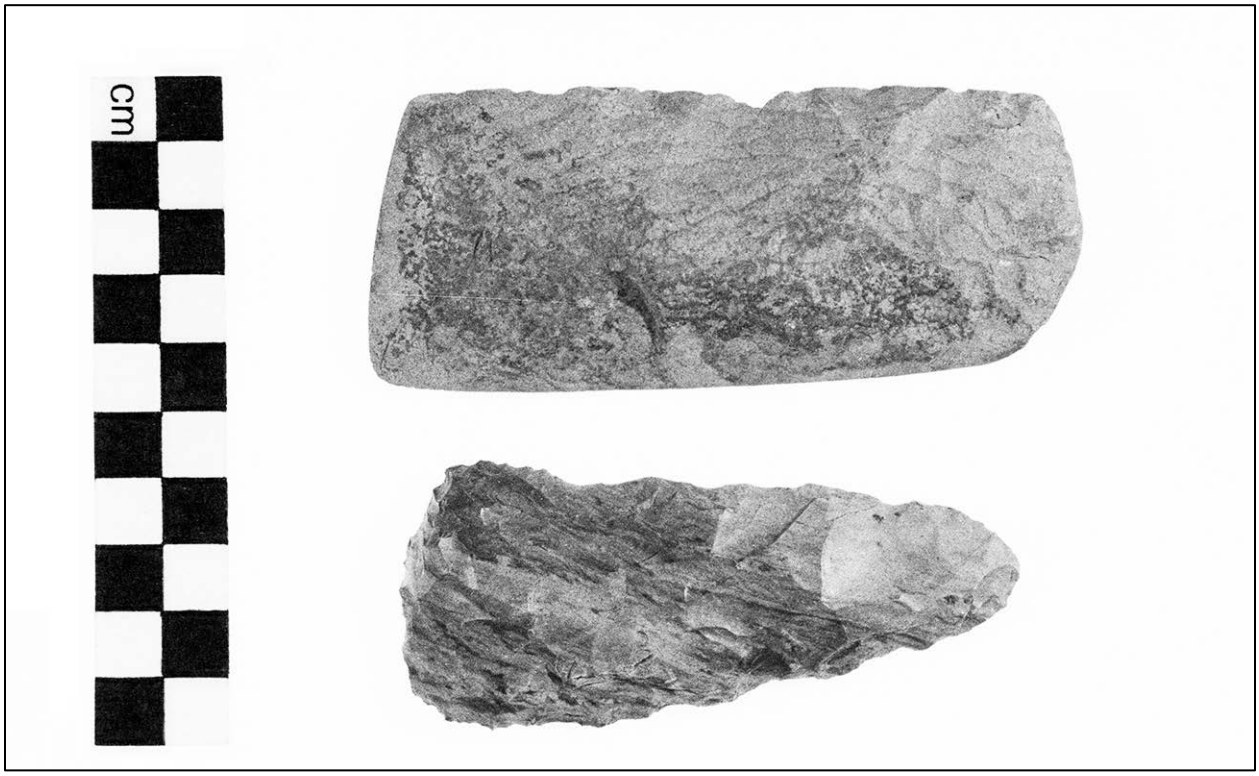

Figure 49. Chisels of Dover chert.

Three complete chisels of Dover chert were recovered from the site surface (see Figure 49). These artifacts widely vary in size and shape. For example, one specimen displays a rectangular plan view, and measures 104.9 mm long, 45.4 mm wide, and 16.6 mm thick. A second item is lanceolate and narrow in plan view, measuring 136.2 mm in length, 27.6 mm in width, and 15.3 mm in thickness. The third complete artifact is somewhat triangular in plan view, and measures 92.0 mm long, 38.2 mm wide (at the bit), and 13.6 mm thick.

The remaining chisel sample was comprised of large to small bit/midsection fragments. One fragment of a rather large chisel (made from local chert) measured 132.6 mm, 53.8 mm wide, and 22.0 mm thick. The bit end was missing from this particular artifact. All but four of these fragments were made of Dover chert. The remainder was manufactured from locally available cherts.

Ground and Pecked Stone

Celts (*n*=8; Figure 50)

Celts are also considered to be woodworking tools. The 40SU15 sample includes fragments of variable sizes that were retrieved from the site surface and pit features. These items display highly polished exterior surfaces, straight to convex bit edges, and bodies that gently taper (from the bit end) to a rather flattened end with rounded corners. Cross-sections range from somewhat oval to rectangular with rounded corners.

A variety of materials were used to manufacture the celts from Rutherford-Kizer, including greenstone, locally available cherts, and limestone. Over half (*n*=5) of the sample was made of greenstone (Figure 50). Four items were found on the site surface, whereas the other was recovered from Feature 101. One nearly complete greenstone specimen (butt end missing) recovered from the site surface was rather small, measuring 72.3 mm in length, 45.5 mm in width, and 19.8 mm in thickness. A midsection fragment from a much larger greenstone celt provides some idea of the size range. This particular artifact measured 106.6 mm long, 59.5 mm wide, and 30.6 mm thick. Interestingly, the broken bit end of this celt displays a rejuvenation attempt by the native resident through unifacial flaking, pecking, and heavy grinding.

Two fragments were manufactured from locally available Ft. Payne chert. One very large bit and midsection fragment recovered from the surface measures 96.6 mm long, 69.0 mm wide, and 45.3 mm thick. This bifacially flaked (flake scars partially visible) and polished artifact has a more oval cross-section than the above described greenstone specimens. The second item is a very small, heavily burned bit fragment recovered from Feature 359.

One highly polished fragment (butt end) of a moderate to large celt made of limestone was retrieved from the surface. The end has been flattened at a 15-degree angle to the celt body, and displays some battering marks along its surface. This artifact exhibits a nearly rectangular cross-section.

Figure 50. Selected greenstone celts.

Discoidals (*n*=2; Figure 51)

Two discoidals ("chunkey stones") were recovered during the Rutherford-Kizer site investigations. One complete specimen of moderate size, made of an off-white cherty limestone, was found on the surface along the fence row that bisects the site (Figure 51). This circular artifact measured 69.5 mm in diameter, with a concave cross-section. Maximum thickness was 28.7 mm along the raised lateral edge. The exterior surface was originally ground (polished?), although erosion has left the surface rather pitted and rough to the touch. The interior portion of this item is paper-thin. A hole (10.2 mm diameter) is present in the artifact center.

A fragment from a very large discoidal was also recovered from the site surface. The cross-section of this specimen strongly resembles that of a champagne cork. A rather level interior surface sharply mushrooms near the lateral edge. The significantly raised lateral edges then gently taper to a flat end with rounded edges. The parent material for this item is a well-consolidated, whitish quartzite. Apparent heat exposure has given the exterior surface a striking smoky-gray tint. In contrast to the previously described discoidal, all surfaces of this artifact are highly polished. This discoidal fragment measures 40.8 mm thick along the raised lateral edge, with an interior thickness of 27.5 mm.

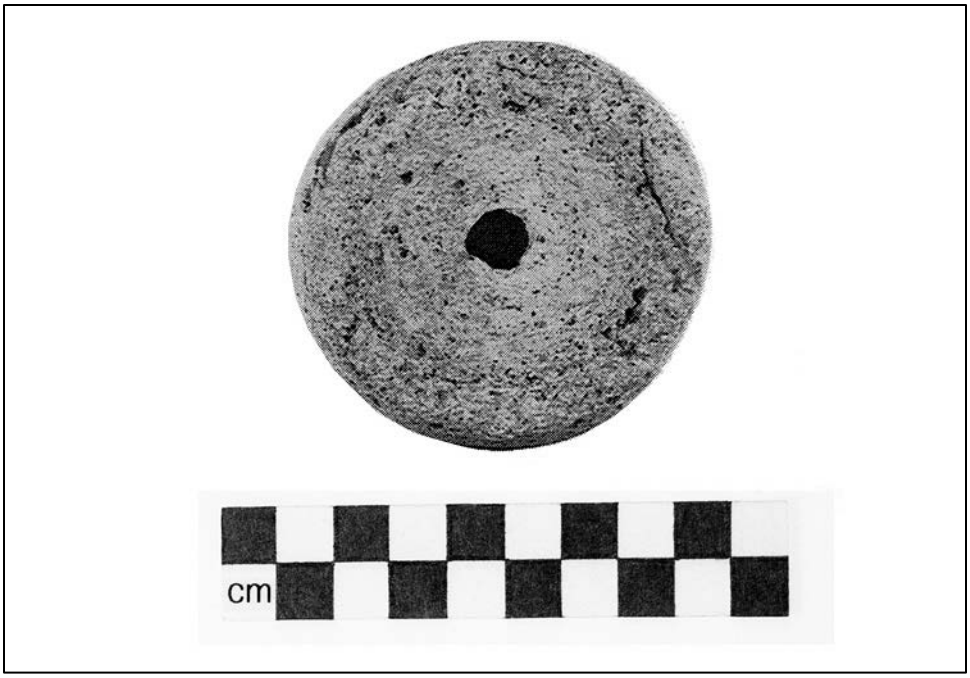

Figure 51. Discoidal of cherty limestone.

Disks (*n*=14; Figures 52 and 53; Table 9)

This category includes small and moderate size stone artifacts that have a circular plan-view and somewhat tabular cross-section (Figure 52). The exterior surfaces have been pecked/ground, and occasionally polished. Disks have often been interpreted as gaming pieces, but alternative functions should not be ruled out. For example, the moderate size specimen from Feature 101 is a probable spindle whorl based upon such characteristics as a central drilled hole, and moderate size (Figure 53).

The fourteen disks recovered from the Rutherford-Kizer investigations exhibited some variety in raw material (Table 9). Limestone (*n*=7) was the most common resource, followed by abrasive siltstone (*n*=5) and siltstone (*n*=2). The limestones used to make these disks ranged in texture from coarse/fossiliferous to rather fine-grain. Each of the abrasive siltstone and siltstone artifacts was made from rather fine-grain materials.

Beads(?) (*n*=3; Figure 54)

Two of these artifacts appear to be beads based upon their general morphology and central drilled holes. These items could possibly be interpreted as spindle whorls since they tend to be larger and obviously more stout than beads of other materials (such as shell). The first example is a fragment made from limestone found in Feature 36 (Figure 54). The limestone used to make this artifact is fine-grained and banded. Circular in plan-view, this bead displayed a rectangular cross-section with convex lateral edges. The shoulders were somewhat squared. All exterior surfaces were heavily ground and polished. This item measured 28.6 mm in diameter and 13.1 mm thick. The drilled center hole displayed a cylindrical cross-section, and measured 6.5 mm in diameter.

A second bead(?) of fossiliferous limestone measuring 26.2 mm in diameter and 15.5 mm thick was recovered from Feature 20. This fragmented specimen displayed a circular plan view, flattened lateral edges with widely rounded shoulders, and a heavily ground exterior surface. A drilled center hole exhibited an hourglass cross-section with a maximum diameter of 4.4 mm.

The third item included in this category was recovered from Burial 70 fill (Lot 85) and embodies the more classic concept of bead shape and size. Made of calcite or fluorite, this bead exhibited a maximum diameter of 9.1 mm and maximum width of 5.6 mm. A small hole measuring 2.5 mm in diameter was drilled in the center.

Gorgets (*n*=3; Figure 55)

End fragments from two different bar style gorgets were retrieved from Feature 101. One heavily ground limestone fragment displays a rectangular plan-view, and a slightly bi-convex cross-section with rounded lateral edges. This artifact measures 56.7 mm wide, at least 66.8 mm long, and 4.5 mm thick near the center and between 2.1 mm and 3.3 mm along the lateral edges.

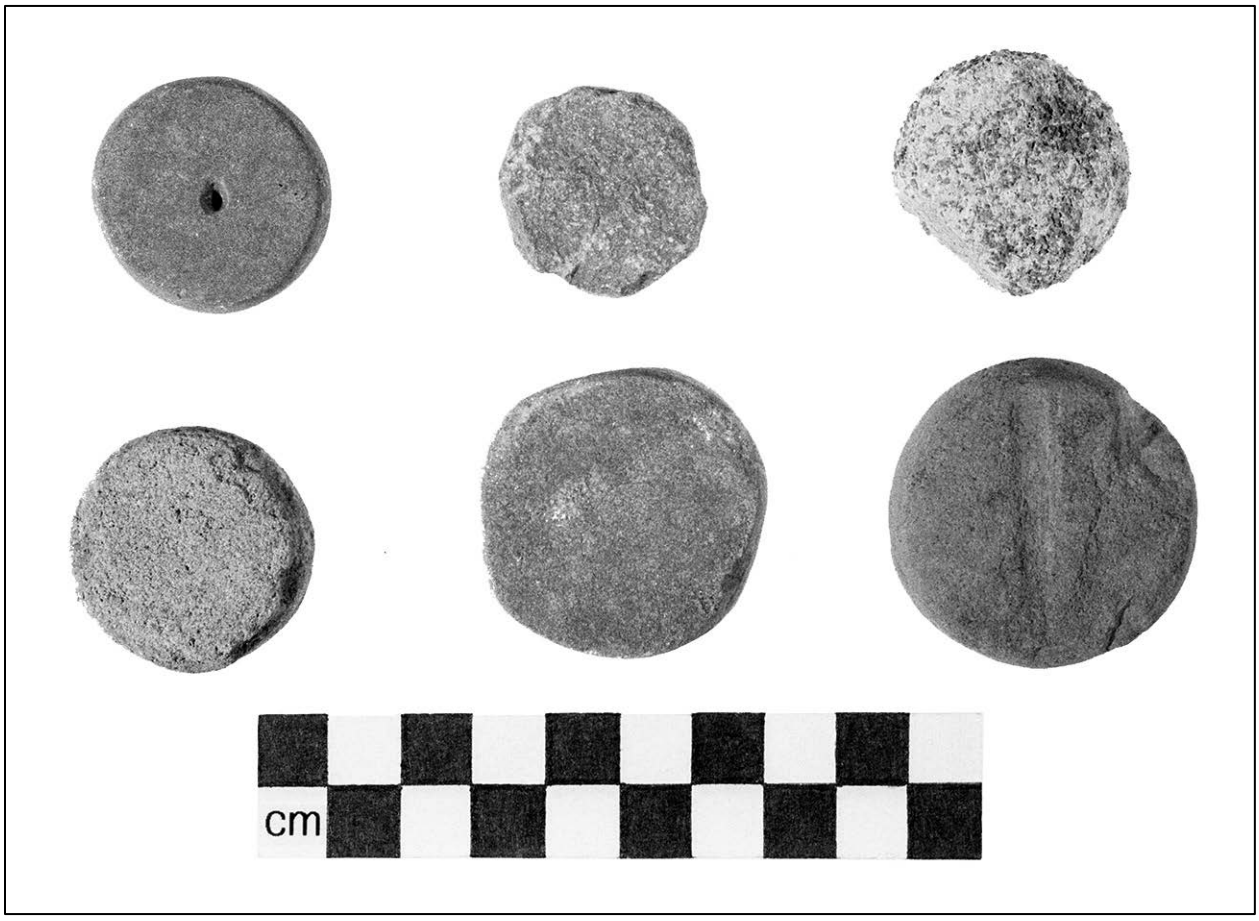

Figure 52. Selected stone disks.

Table 9. Provenience and Measurements (in mm) of Stone Disks.

Provenience	Material	Maximum Diameter	Maximum Thickness	Comments
Surface	abrasive siltstone	29.4*	13.6	Small fragment, heavily ground disk with bi-convex cross-section. Lateral edges are rounded, measure 5.7 mm thick.
Surface	abrasive siltstone	41.6	18.8	Cross-section rectangular, lateral edges flattened to slightly rounded. This well-crafted artifact has been heated. All surfaces heavily ground.
Surface	abrasive siltstone	73.0*	20.3	Fragment of very large disk. Cross-section slightly bi-convex, lateral edges rounded. All exterior surfaces heavily ground.
Surface	siltstone	43.3	12.8	Nearly complete specimen has roughly circular plan view. Cross-section somewhat bi-convex. Lateral edges vary from rather narrow/pointed to rounded. A series of perpendicular etched lines are present on one side. Exterior surfaces heavily ground.
Surface	limestone	32.8	16.2	Nearly complete object exhibits rectangular cross-section and rounded lateral edges. Eroded exterior surfaces of this fossiliferous material gives artifact very rough texture.
Surface	limestone	38.9	16.9	Somewhat circular artifact made from fossiliferous limestone apparently in early manufacture stage. Cross-section roughly plano-convex. Broad exterior surfaces completely unworked. No evidence of pecking or grinding. Lateral edges bifacially worked and sinuous.
Surface	limestone	32.7*	11.8	Fragment with unusual plano-convex cross-section. Shallow, circular depression 16.5 mm diameter in center of convex surface. Artifact is burned. Exterior surfaces heavily ground.
Surface	limestone	69.2*	8.8	Fragment of large disk made from fossiliferous limestone. Cross-section somewhat rectangular, lateral edges are flattened. Diameter/thickness ratio much greater than others in sample. Exterior surfaces heavily ground, but artifact is not planar (undulates in places).
Feat. 20	abrasive siltstone	33.5	12.2	Cross-section rectangular, lateral edges flattened to slightly convex. All exterior surfaces heavily ground.
Feat. 20	siltstone	57.3	25.7	Cross-section somewhat rectangular, lateral edges vary from flattened to slightly rounded. Artifact has been heated. Exterior surfaces have begun to erode.
Feat. 20	limestone	40.4	13.3	Cross-section rectangular, lateral edges flattened with rounded corners. Artifact has been heated. Broad surfaces heavily ground. Lateral edges pecked and unevenly ground.
Feat. 20	limestone	32.9	11.0	Well-crafted artifact has rectangular cross-section. Lateral edges flattened with rounded corners. Exterior surfaces heavily ground to polished. One small, shallow hole (3.7 mm diameter) present in center of both broad surfaces.
Feat. 36	limestone	29.4	10.5	Roughly circular disk in early manufacture stage. Cross-section is rectangular. Lateral edges partially ground but very uneven. Broad exterior surfaces not ground.
Feat. 101	abrasive siltstone	46.2	20.0	Cross-section is rectangular, lateral edges flattened with rounded corners. Drilled hole in center has hourglass cross section. Diameter of hole measures 6.5 mm near artifact center, expanding to 14.2 mm near broad exterior surfaces. Artifact has been heated. All exterior surfaces heavily ground. Probable spindle whorl.

* = broken.

Figure 53. Probable spindle whorl from Feature 101.

Figure 54. Bead(?) of limestone from Feature 36.

Figure 55. Stone gorget fragments from Feature 101.

The second gorget fragment from Feature 101 is also heavily ground and made of limestone. This particular specimen has a more oval plan-view, and exhibits a bi-convex cross-section with rounded lateral edges. This gorget is much thicker near the center than the first artifact, measuring 10.0 mm. However, the lateral edge thickness of 2.2 mm is similar.

A third artifact was found on the surface and consists of a piece of tabular (brown fossiliferous) limestone in the process of being worked into a gorget. One lateral edge and end have been bifacially chipped and pecked, whereas the opposing lateral edge still displays an unworked square edge. The worked edge is convex in plan-view with rounded edges. The opposite end has been broken. Moderate in size, this incomplete specimen measures 117.1 mm long, 76.7 mm wide (worked end), and 19.3 mm thick.

Manos (*n*=8)

Eight oval to circular fragments of abrasive siltstone were recovered during the site 40SU15 investigations. All of these grinding implements exhibited heavily ground, flattened surfaces and (rounded) lateral edges. Six fragments were found on the surface or from disturbed contexts. Features 36 and 587 yielded one artifact each. Length and width measurements were not viable on any of these rather small fragments. However, seven of the eight artifacts yielded thickness measurements between 29.2 mm and 45.3 mm.

Metates (*n*=4)

Two complete metates were recovered from the site surface. Both specimens were made from tabular pieces of abrasive siltstone and heavily ground on both sides. One metate is a bit unusual as it was worked into a nearly perfect square, measuring between 248.0 mm and 253.0 mm in length on a side. This artifact displays one concave surface, and measures 43.8 mm thick along the lateral edge and 34.0 mm thick near the center.

The second complete specimen is somewhat circular, measuring 354.0 mm in diameter. This artifact is much thinner than the previously described metate, ranging between 16.1 mm and 28.2 mm thick. A deep reddish-brown color indicates this metate has been subjected to heat.

Features 20 and 587 each yielded one small metate fragment. Both specimens have been exposed to heat. The Feature 20 fragment has one heavily ground, concave surface. In contrast, the Feature 587 piece exhibits two heavily ground, but rather flat, surfaces.

Abraders (*n*=4)

One small cobble and three tabular fragments of abrasive siltstone were assigned to this category. These artifacts exhibited one or more linear U and V-shaped grooves along their exterior surface. The small abrasive siltstone cobble, recovered from the surface and somewhat irregular to triangular in shape, displayed a multitude of V-shaped grooves across one broad surface. These narrow grooves ranged from less than 1.0 mm up to 2.1 mm in size.

The three small, tabular fragments exhibited larger U-shaped grooves between 5.3 mm and 11.1 mm wide on one or more sides. One specimen from a disturbed context also had several V-shaped grooves from 1.7 mm to 2.5 mm wide. The other two artifacts were retrieved from Features 101 and 359.

Unidentified Groundstone (*n*=34; Figure 56)

This category contains those artifacts with ground or polished surfaces that could not be assigned to a formal type due to their fragmented nature. Several odd items with no apparent function were also included in this admittedly catchall classification. An assortment of material types are represented in this sample, including greenstone, Dover chert, Ft. Payne chert, abrasive siltstone, limestone, cannel coal, and shale.

The most perplexing piece assigned to this category is a nearly complete artifact of highly polished greenstone recovered from the site surface (Figure 56). This tabular specimen is rectangular in cross-section on one end and triangular on the opposite end. Three of the four surfaces (from the rectangular end) are level with well-defined lateral corners. Moving from the rectangular to triangular end, the fourth lateral corner changes from a well-defined corner to a gently curved surface. Both ends of this item have been damaged, but the visible portions suggest they were ground and polished to an approximate 45-degree angle to the long axis. This artifact measures 60.2 mm in length. At the rectangular end it measures 21.9 mm wide, and 18.0 mm thick. Toward the triangular end it measures 9.7 mm wide and 6.9 mm thick.

A small, burned fragment of greenstone was recovered from Feature 20. The polished exterior surface supports the suggestion that this fragment was part of a greenstone celt.

Figure 56. Unusual polished greenstone artifact from site surface.

Sixteen fragments of Dover chert and one fragment of Ft. Payne chert were also assigned to this category. These artifacts range from small blocky pieces to tabular sections of moderate size with one or more ground surfaces. Most of these fragments probably represent portions of chisels, or possibly celts and hoes.

Four of the six abrasive siltstone artifacts assigned to this category comprise small, irregularly shaped fragments with one or more ground surfaces. These four items are likely portions of manos or abraders. A fifth item (from Feature 36) consists of a small, tabular piece of abrasive siltstone (7.6 mm thick) with heavy grinding along one flat surface and the lateral edge. Parallel linear grooves are present on the opposite flat surface. This particular artifact may be some type of light abrader, or possibly a decorated disk. The sixth fragment is a thin (7.2 mm), tabular artifact with heavily ground surfaces and lateral edge. The lateral edge is too straight for this artifact to be a disk, but a gorget fragment is a possibility.

Feature 587 yielded one fragmented tabular piece of limestone. Small and somewhat rectangular shaped, this artifact exhibited one partially ground surface. Portions of the lateral edge also displayed minimal grinding action. This item has no suggested function, but is at least 62.1 mm long, 46.7 mm wide, and 12.9 mm thick.

Two small, tabular pieces of cannel coal with ground lateral edges were retrieved from a disturbed context. Artifacts of this nature have often been interpreted as tools for smoothing ceramic vessels.

The remainder of the unidentified groundstone sample consists of four rather thin fragments of black shale with ground surfaces and lateral edges. One unusual fragment, measuring 73.1 mm long, 52.5 mm wide, and 6.3 mm thick, displayed numerous etched lines on both broad surfaces. These lines appear to be randomly placed as no specific pattern or figure could be identified.

Hammerstones (*n*=6)

Items assigned to this category consist exclusively of rather small to moderate size chert cobble (local) sections with bifacially worked lateral edges. These lateral edges display extensive battering and crushing. Most of these artifacts appear to be tested cobbles or discarded cores that were later selected for use as hammers. Features 101 and 740 yielded one item each. The other four artifacts were recovered from disturbed contexts. One complete hammerstone (from the site surface) derived from a small, bifacially worked cobble with no cortex that measured 39.4 mm in diameter and 22.0 mm thick.

Lithic Resources

Residents of the Rutherford-Kizer site utilized a variety of local and exotic stone for their domestic needs. Over 96% (*n*=5,751) of the 5,964 recovered lithic artifacts were made from locally available resources. The vast majority of these specimens originated from cherts in the Mississippian Ft. Payne and St. Louis Formations. These abundant resources outcrop in the Highland Rim, and also in scattered erosional remnants within the Central Basin (Amick 1987; Miller et al. 1966). Smooth, waterworn cortex observed on 40SU15 specimens indicates the majority of these local resources were acquired from nearby streambeds. Ft. Payne chert is opaque and exhibits a variety of textures. Colors are quite variable (and at times mixed) even within the same source, ranging from various shades of blue, gray, and brown. The distinctive blue to blue-gray St. Louis chert is isotropic, opaque, and fine-grained. Additional local cherts present in the sample include the homogenous, opaque, gray to mottled gray-white chert derived from the Mississippian Warsaw Formation just north of the study area. Chert gravels originating from Ordovician formations were likely part of the assemblage as well.

Other local resources important to the site inhabitants were limestone, abrasive siltstone, and calcite. As mentioned before, limestone is a plentiful resource throughout the study area. A number of groundstone items were made from limestone, including one celt, one discoidal, seven disks, two probable beads, and three gorgets.

The manos, metates, abraders, and one spindle whorl from 40SU15 were made from an abrasive material previously described as sandstone (e.g., Moore and Breitburg 1988; Moore and Smith 1993a), as prompted by the presence of visible sand grains and the materials'

abrasive texture. However, this material is instead a siltstone derived from the Mississippian Ft. Payne limestone formation which occurs locally in limestone outcrops (Moore 2005)

The 40SU15 investigations yielded two disks of siltstone. This particular resource was dense, fine grain, light brown in color, and rather lightweight. The closest source of siltstone is probably the Pennsylvanian age deposits within the Highland Rim physiographic province.

One small bead of calcite/fluorite was recovered from Burial 70. This mineral likely derives from the study area (Moore et al. 2014).

About 3.6% (*n*=213) of the 5,964 lithic artifacts retrieved during the 1993–1995 investigations were derived from non-local contexts. Exotic resources recovered from Rutherford-Kizer consist of Dover chert, Burlington chert, and greenstone. Dover chert and greenstone represent materials that are commonly found on Mississippian period sites within the study area. On the other hand, few sites within the Middle Cumberland region have indicated the presence of Burlington chert.

Dover chert primarily derives from quarries in Stewart County, Tennessee roughly 110 km west of the site area. Additional sources have been identified from investigations in Houston and Humphreys Counties just south of Stewart County (Smith and Broster 1993). This resource is a homogenous, non-lustrous, gray to brown colored material with mottled black and gray inclusions. Dover was used for such domestic tools as hoes, chisels/adzes, and knives; and also for specialty items like maces and "ceremonial" swords. Dover chert accounts for 3.4% (*n*=202) of the 40SU15 lithic assemblage. Artifacts from Rutherford-Kizer include one thick biface, one thin biface, 76 waste flakes, three blocky debris, three flake scrapers, 76 rejuvenation flakes, four projectile points, one knife, 21 chisels or chisel fragments, and 16 unidentified groundstone fragments.

Burlington chert is a homogenous, fine-grain, and (generally) white-colored material that originates from the Burlington Limestone formation in the Central Mississippi Valley region of Illinois and Missouri (Meyers 1970; Morse and Morse 1983). The mere presence of this resource may be significant, since few sites within the Middle Cumberland region have reported this material (Smith and Moore 2012). On the other hand, this absence may be the result of identification error or sample bias. Burlington chert was minimally represented with <1% (*n*=4) of the total lithic assemblage. Two projectile points and two waste flakes comprise the Burlington sample.

Greenstone artifacts have been recovered from a number of Mississippian sites within the Middle Cumberland region. The probable origin of this colorful resource is the Appalachian Mountain chain east of the study area. No formal source studies for this material have been conducted to date. However, one outcrop of greenstone has been identified in Polk County along the Hiwassee River roughly 220 kilometers southeast of the Rutherford-Kizer site (Riggs et al. 1988). Greenstone artifacts account for 0.1% (*n*=7) of the 40SU15 lithic assemblage. These items include five celts or celt fragments, and two unidentified groundstone tools.

VIII. FAUNAL REMAINS

Emanuel Breitburg and Michael C. Moore

A substantial collection of 8,667 vertebrate skeletal specimens were recovered during the 1993–1995 archaeological investigations at the Rutherford-Kizer site. The specimens were recovered from a variety of contexts, including surface collections, backhoe trenches, hand-excavated test units, features, and human burials. Each bone was examined and identified to the most specific taxon possible. Approximately 21% (*n*=1,180) of the vertebrate skeletal material was identifiable to family, genus, or species, and is presented in Table 10. Appendix F lists the frequency of identified and indeterminate skeletal elements.

One of the primary goals of examining the faunal remains was to establish a site-specific model of the animal species utilized by site residents. A second objective involved documenting bone modification to determine methods of butchering animals, and examine the role animal bone played in the occupants daily lives. Finally, on the basis of useable meat estimates determined for edible taxa present, a model of animal and environmental resource has been presented. The discussion and summary portions focus on Rutherford-Kizer animal subsistence practices relative to a Cumberland River drainage model for Mississippian period sites (Moore and Breitburg 1998). The summary also examines the model currently used to explain Mississippian period animal exploitation for the Mississippi River drainage (Smith 1975).

Skeletal and Taxonomic Composition

Just over 1% (*n*=104) of the total assemblage represents human skeletal fragments. Most of these human elements were retrieved from non-feature contexts. The exceptions were Features 16, 20, 36, 62, 66, and 101. These 104 specimens have been excluded from the faunal percentages and discussions presented in the remainder of this section.

The Rutherford-Kizer assemblage of 8,563 specimens (excluding human remains) is composed of 71.0% mammal (*n*=6,079), 16.7% bird (*n*=1,427), 9.0% reptile (*n*=774), 4.4% fish (*n*=380), and less than 1% amphibian (*n*=7). Exactly 22% (*n*=1,884) of the recovered remains show some sign of contact with heat or direct contact with fire. In comparison, less than 1% (*n*=19) display cut marks indicative of human modification. Nearly the same small percentage (*n*=36, less than 1%) represents complete or fragmented items of personal adornment, domestic tools, hunting or fishing equipment, and manufacturing residue.

Thirty species, nine genera, and five families comprised 20.2% (*n*=1,726) of the total assemblage. Mammal species represented most of the taxa (17 species, 2 genera, and 2 families) identified from 1,115 specimens (13% of the total assemblage). The most common identified mammal by total remains (*n*=787) and individual count (MNI=24) was white-tailed deer. The next most common species, rice rat, was followed by fox squirrel (MNI=7) and gray squirrel (MNI=5). Other mammals present included wapiti, striped skunk, raccoon, bear, gray

Table 10. Identifiable Vertebrate Fauna From the 1993–1995 Excavations.

	Gen Surf	SBA Fill	SBB Fill	TU1 LVL1	TU! LVL2	TU2 LVL1	TU3 LVL1	BHT A	BHT K	Psd Trn	Mon	Features 2	3	8	12	13	14	15	16	18	20	21	27	28	29	36	41	42	45	46	50	51	52	57	59	61	62	64	66
MAMMALS																																							
Homo sapiens, Human	1	11	2	4	1	-	1	-	2	-	-	-	-	-	-	3	-	-	1	-	5	-	-	-	-	2	-	-	-	-	-	-	-	-	1	-	1
Cervus canadensis, Wapiti	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
Cervidae, Wapiti/Deer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Odocoileus virginianus, White-tailed deer	13	13	123	4	12	20	-	4	43	-	-	1	-	-	1	-	9	1	-	-	109	1	2	-	-	152	-	1	-	1	-	-	-	1	-	-	1	1	-
Mephitis mephitis, Striped skunk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Procyon lotor, Raccoon	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	1	2	-	-	2	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
Ursus americanus, Black bear	1	-	8	1	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Urocyon cinereoargenteus, Gray fox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Canis sp., Fox size	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canis familiaris, Domestic dog	1	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Canis, cf. *lupus*, Gray wolf	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Ondatra zibethicus, Muskrat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oryzomys palustris, Rice rat	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	13	-	-	-	-	-	-	-	-	1	-	-
Castor canadensis, Beaver	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-
Sciurus niger, Fox squirrel	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	2	-	-	-	21	-	-	-	-	34	-	-	-	-	-	-	-	-	-	-	-
Sciurus carolinensis, Gray squirrel	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2	-	-	-	3	-	-	1	-	34	-	-	-	-	-	-	-	1	-	-	-
Sciurus spp., Squirrel species	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Marmota monax, Woodchuck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tamais striatus, Chipmunk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sylvilagus floridanus, Cottontail rabbit	-	-	1	2	1	-	-	-	-	-	-	-	-	-	-	-	3	2	1	-	3	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-
Scalopus aquaticus, Common mole	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Didelphis marsupialis, Opossum	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	6	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-
Large mammal fragments	2	33	143	61	54	56	28	1	122	-	1	-	4	-	1	-	55	-	5	-	361	-	-	-	-	551	1	-	4	-	-	1	-	1	-	3	-	-
Small mammal fragments	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	4	-	-	-	22	-	-	-	-	25	-	-	-	-	-	-	-	-	-	-	-	-
Small rodent fragments	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	6	-	-	-	-	43	-	-	-	-	-	-	-	-	-	-	-	-
Indeterminate mammal fragments	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	1	-	-	-	414	-	-	-	-	365	-	-	-	-	-	-	-	-	-	-	-	-
BIRDS																																						
Passerine spp., Perching birds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corvus brachyrhynchos, Common crow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Strix varia, Barred owl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grus canadensis, Sandhill crane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ectopistes migratorius, Passenger pigeon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meleagris gallopavo, Wild turkey	-	1	13	-	-	4	-	1	2	-	-	-	-	1	-	-	3	3	-	-	37	-	-	-	-	33	-	-	-	-	1	-	-	-	-	1	-	-
Colinus virginianus, Bobwhite quail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Anas et al., Mallard/Black/Pintail Duck spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Branta canadensis, Canada goose	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Bird fragments	-	2	20	10	21	9	5	-	13	-	-	-	2	-	-	-	16	10	4	-	90	-	-	-	2	766	-	-	1	-	1	3	-	-	-	3	2	-
REPTILES																																						
Trionyx spiniferus, Softshell turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	1	-	-	-	-	-	-
Chrysemys/Graptemys spp., Map/painted turtle	-	-	-	-	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Terrapene carolina, Box turtle	1	1	16	-	-	2	-	-	19	-	-	-	-	-	-	-	1	3	1	-	125	-	-	-	-	42	-	-	-	-	-	1	1	-	-	-	-	-
Chelydra serpentina, Snapping turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Turtle fragments	-	-	4	15	15	1	5	-	-	-	-	-	3	-	1	-	16	-	-	-	36	-	-	-	-	15	-	-	-	-	-	-	-	-	2	-	2	
Colubridae, Non-poisonous snake family	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	10	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Viperidae, Poisonous snake family	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
Serpent spp., Snake	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
AMPHIBIANS																																						
Rana/Bufo spp., Frog/Toad spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	1	-	
FISHES																																						
Aplodinotus grunniens, Freshwater drum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-
Ictalurus punctatus, Channel catfish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ictalurus spp., Catfish	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Moxostoma spp., Redhorse	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Catostomidae, Sucker family	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyprinidae, Minnow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Amia calva, Bowfin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fish fragments	-	-	-	1	-	-	-	-	-	-	-	-	13	-	-	-	2	1	-	-	142	-	-	1	-	68	-	-	1	-	-	-	-	-	1	1	-	-	-
TOTAL	**19**	**62**	**335**	**100**	**108**	**95**	**40**	**7**	**206**	**1**	**2**	**1**	**41**	**1**	**3**	**3**	**118**	**28**	**13**	**1**	**1444**	**1**	**2**	**2**	**2**	**2203**	**1**	**1**	**6**	**1**	**1**	**6**	**2**	**2**	**1**	**2**	**12**	**4**	**3**

Table 10. Identifiable Vertebrate Fauna From the 1993–1995 Excavations (continued).

	Features																																							
	68	69	70	76	82	83	84	88	89	90	91	92	95	96	101	105	107	108	109	111	112	117	118	123	124	126	128	129	130	131	137	139	140	141	152	156	158	162	194
MAMMALS																																								
Homo sapiens, Human	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cervus canadensis, Wapiti	-	-	-	-	-	1	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cervidae, Wapiti/Deer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Odocoileus virginianus, White-tailed deer	-	-	2	-	-	2	-	2	2	1	1	-	1	-	137	-	-	1	-	-	-	1	-	1	-	1	1	-	1	1	-	-	-	-	-	2	-	9	15
Mephitis mephitis, Striped skunk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Procyon lotor, Raccoon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ursus americanus, Black bear	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Urocyon cinereoargenteus, Gray fox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Canis sp., Fox size	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canis familiaris, Domestic dog	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Canis, cf. *lupus*, Gray wolf	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ondatra zibethicus, Muskrat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oryzomys palustris, Rice rat	-	-	-	-	-	-	-	-	-	-	1	-	-	-	11	-	-	-	-	-	-	-	1	-	-	-	-	2	1	-	1	-	-	-	-	-	-	-
Castor canadensis, Beaver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sciurus niger, Fox squirrel	-	-	-	-	-	-	-	-	-	-	-	-	-	1	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sciurus carolinensis, Gray squirrel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Sciurus spp., Squirrel species	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marmota monax, Woodchuck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tamais striatus, Chipmunk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sylvilagus floridanus, Cottontail rabbit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-
Scalopus aquaticus, Common mole	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Didelphis marsupialis, Opossum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Large mammal fragments	-	1	1	-	-	12	-	3	7	1	-	1	-	5	2026	1	1	-	-	-	1	-	-	1	1	-	1	2	-	1	-	-	1	1	4	-	1	7	13
Small mammal fragments	1	-	-	-	-	1	-	-	1	-	1	-	-	1	31	-	-	-	-	-	1	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	1	-	-
Small rodent fragments	-	-	-	-	-	-	-	-	-	-	-	1	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeterminate mammal fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-
BIRDS																																							
Passerine spp., Perching birds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corvus brachyrhynchos, Common crow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Strix varia, Barred owl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grus canadensis, Sandhill crane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ectopistes migratorius, Passenger pigeon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meleagris gallopavo, Wild turkey	-	1	-	-	-	-	1	-	2	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-
Colinus virginianus, Bobwhite quail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anas et al., Mallard/Black/Pintail Duck spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Branta canadensis, Canada goose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bird fragments	-	-	-	-	-	5	-	1	11	-	1	1	-	-	228	-	-	-	-	-	1	-	-	-	-	1	-	2	-	-	-	-	-	-	-	2	-	6	1
REPTILES																																							
Trionyx spiniferus, Softshell turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysemys/Graptemys spp., Map/painted turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Terrapene carolina, Box turtle	-	-	3	-	-	1	-	-	-	-	-	1	-	-	16	-	-	-	-	1	-	-	-	-	1	-	-	1	-	1	-	1	-	-	1	-	-	5
Chelydra serpentina, Snapping turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turtle fragments	-	-	-	2	2	5	-	1	19	-	-	-	-	-	238	1	-	-	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-	-	-	-	-	3	-
Colubridae, Non-poisonous snake family	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Viperidae, Poisonous snake family	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serpent spp., Snake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AMPHIBIANS																																							
Rana/Bufo spp., Frog/Toad spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FISHES																																							
Aplodinotus grunniens, Freshwater drum	-	-	-	-	-	1	-	-	1	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ictalurus punctatus, Channel catfish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ictalurus spp., Catfish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Moxostoma spp., Redhorse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Catostomidae, Sucker family	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyprinidae, Minnow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amia calva, Bowfin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fish fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	1
TOTAL	**1**	**2**	**7**	**2**	**2**	**28**	**1**	**7**	**44**	**2**	**4**	**4**	**1**	**7**	**3055**	**2**	**1**	**1**	**1**	**1**	**3**	**1**	**1**	**3**	**4**	**2**	**3**	**12**	**2**	**4**	**1**	**1**	**1**	**1**	**4**	**6**	**2**	**36**	**37**

Table 10. Identifiable Vertebrate Fauna From the 1993–1995 Excavations (continued).

	Features													
	196	**211**	**359**	**360**	**361**	**365**	**371**	**392**	**587**	**588**	**739**	**740**	**741**	**880**
MAMMALS														
Homo sapiens, Human	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cervus canadensis, Wapiti	-	-	2	-	-	-	-	-	-	-	-	-	-	-
Cervidae, Wapiti/Deer	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Odocoileus virginianus, White-tailed deer	2	1	10	1	1	-	1	1	1	1	7	-	4	23
Mephitis mephitis, Striped skunk	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Procyon lotor, Raccoon	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ursus americanus, Black bear	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urocyon cinereoargenteus, Gray fox	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Canis sp., Fox size	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canis familiaris, Domestic dog	-	-	-	-	-	2	-	-	-	-	-	-	-	-
Canis, cf. *lupus*, Gray wolf	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ondatra zibethicus, Muskrat	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oryzomys palustris, Rice rat	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Castor canadensis, Beaver	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sciurus niger, Fox squirrel	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Sciurus carolinensis, Gray squirrel	-	-	-	-	-	-	1	-	-	-	-	-	-	3
Sciurus spp., Squirrel species	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marmota monax, Woodchuck	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tamais striatus, Chipmunk	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sylvilagus floridanus, Cottontail rabbit	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Scalopus aquaticus, Common mole	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Didelphis marsupialis, Opossum	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Large mammal fragments	2	-	31	-	-	-	-	1	-	-	10	6	17	56
Small mammal fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Small rodent fragments	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Indeterminate mammal fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BIRDS														
Passerine spp., Perching birds	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corvus brachyrhynchos, Common crow	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Strix varia, Barred owl	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grus canadensis, Sandhill crane	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ectopistes migratorius, Passenger pigeon	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meleagris gallopavo, Wild turkey	-	-	1	-	-	-	-	-	-	2	-	-	-	-
Colinus virginianus, Bobwhite quail	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anas et al., Mallard/Black/Pintail Duck spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Branta canadensis, Canada goose	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bird fragments	-	-	3	-	-	-	-	-	-	-	-	-	-	8
REPTILES														
Trionyx spiniferus, Softshell turtle	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Chrysemys/Graptemys spp., Map/painted turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Terrapene carolina, Box turtle	1	-	1	-	-	-	-	-	-	-	-	-	-	11
Chelydra serpentina, Snapping turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turtle fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Colubridae, Non-poisonous snake family	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Viperidae, Poisonous snake family	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serpent spp., Snake	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AMPHIBIANS														
Rana/Bufo spp., Frog/Toad spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FISHES														
Aplodinotus grunniens, Freshwater drum	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ictalurus punctatus, Channel catfish	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ictalurus spp., Catfish	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Moxostoma spp., Redhorse	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Catostomidae, Sucker family	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyprinidae, Minnow	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amia calva, Bowfin	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fish fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	2
TOTAL	**6**	**1**	**51**	**1**	**1**	**2**	**2**	**2**	**1**	**3**	**17**	**6**	**21**	**114**

	Plow Strips																										
	A2	**A4**	**A5**	**A6**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**D4**	**D5**	**D6**	**D7**	**E2**	**E3**	**E4**	**E5**	**E6**	**E7**
MAMMALS																											
Homo sapiens, Human	-	2	-	-	-	-	1	-	-	1	-	-	-	-	-	-	6	3	1	-	-	-	1	16	2	1	-
Cervus canadensis, Wapiti	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Cervidae, Wapiti/Deer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Odocoileus virginianus, White-tailed deer	-	1	1	-	1	-	-	1	4	2	-	4	5	-	2	2	1	-	1	1	-	-	-	3	-	-	-
Mephitis mephitis, Striped skunk	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Procyon lotor, Raccoon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ursus americanus, Black bear	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urocyon cinereoargenteus, Gray fox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canis sp., Fox size	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canis familiaris, Domestic dog	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Canis, cf. *lupus*, Gray wolf	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ondatra zibethicus, Muskrat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oryzomys palustris, Rice rat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Castor canadensis, Beaver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sciurus niger, Fox squirrel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sciurus carolinensis, Gray squirrel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sciurus spp., Squirrel species	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marmota monax, Woodchuck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
Tamais striatus, Chipmunk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sylvilagus floridanus, Cottontail rabbit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
Scalopus aquaticus, Common mole	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Didelphis marsupialis, Opossum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Large mammal fragments	-	4	3	7	3	2	-	2	4	8	2	12	5	5	4	2	9	1	3	4	6	1	2	5	-	-	4
Small mammal fragments	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Small rodent fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeterminate mammal fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BIRDS																											
Passerine spp., Perching birds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Corvus brachyrhynchos, Common crow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Strix varia, Barred owl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grus canadensis, Sandhill crane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ectopistes migratorius, Passenger pigeon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Meleagris gallopavo, Wild turkey	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Colinus virginianus, Bobwhite quail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anas et al., Mallard/Black/Pintail Duck spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Branta canadensis, Canada goose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bird fragments	1	1	-	-	-	-	-	1	-	3	1	-	-	-	1	-	-	1	-	-	2	-	-	-	-	-	-
REPTILES																											
Trionyx spiniferus, Softshell turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysemys/Graptemys spp., Map/painted turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Terrapene carolina, Box turtle	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-
Chelydra serpentina, Snapping turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Turtle fragments	-	3	1	1	-	-	-	-	-	3	-	2	-	2	1	-	-	-	1	1	1	-	-	2	-	-	-
Colubridae, Non-poisonous snake family	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Viperidae, Poisonous snake family	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serpent spp., Snake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AMPHIBIANS																											
Rana/Bufo spp., Frog/Toad spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FISHES																											
Aplodinotus grunniens, Freshwater drum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ictalurus punctatus, Channel catfish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ictalurus spp., Catfish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Moxostoma spp., Redhorse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Catostomidae, Sucker family	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyprinidae, Minnow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amia calva, Bowfin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fish fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	**1**	**12**	**6**	**9**	**4**	**3**	**2**	**6**	**8**	**18**	**3**	**19**	**10**	**7**	**8**	**4**	**18**	**6**	**6**	**6**	**9**	**1**	**3**	**28**	**3**	**1**	**4**

Table 10. Identifiable Vertebrate Fauna From the 1993–1995 Excavations (continued).

	Plow Strips																				
	F1	F4	F5	F7	G2	G3	G4	G7	H4	M9	N7	N8	O9	010	P9	Q7	Total	MNI	Burned	Cut	Modified
MAMMALS																					
Homo sapiens, Human	-	2	2	2	-	-	-	-	-	7	1	4	10	-	3	1	104	4	2	-	-
Cervus canadensis, Wapiti	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	15	2	1	2	1
Cervidae, Wapiti/Deer	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Odocoileus virginianus, White-tailed deer	1	-	2	2	1	1	4	-	-	-	-	-	-	-	-	-	787	24	66	12	11
Mephitis mephitis, Striped skunk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-
Procyon lotor, Raccoon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	1	1	-	1
Ursus americanus, Black bear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	2	1	1	2
Urocyon cinereoargenteus, Gray fox	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	1	1	-	-
Canis sp., Fox size	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Canis familiaris, Domestic dog	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	2	-	-	-
Canis, cf. *lupus*, Gray wolf	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Ondatra zibethicus, Muskrat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Oryzomys palustris, Rice rat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43	7	-	-	-
Castor canadensis, Beaver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	1	-	1	2
Sciurus niger, Fox squirrel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	76	7	6	-	-
Sciurus carolinensis, Gray squirrel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	75	5	9	-	-
Sciurus spp., Squirrel species	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-
Marmota monax, Woodchuck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Tamais striatus, Chipmunk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Sylvilagus floridanus, Cottontail rabbit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	2	4	-	-
Scalopus aquaticus, Common mole	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	2	-	-
Didelphis marsupialis, Opossum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	2	2	-	-
Large mammal fragments	-	-	3	2	1	1	1	-	1	-	-	-	-	2	-	-	3814	-	1383	1	6
Small mammal fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	97	-	9	-	-
Small rodent fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	-	-	-	-
Indeterminate mammal fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	878	-	1	-	3
BIRDS																					
Passerine spp., Perching birds	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Corvus brachyrhynchos, Common crow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Strix varia, Barred owl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Grus canadensis, Sandhill crane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Ectopistes migratorius, Passenger pigeon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	-	-	-
Meleagris gallopavo, Wild turkey	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	141	9	9	2	6
Colinus virginianus, Bobwhite quail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	2	-	-	-
Anas et al., Mallard/Black/Pintail Duck spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1	-	-
Branta canadensis, Canada goose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	1	-	-	-
Bird fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1262	-	175	-	3
REPTILES																					
Trionyx spiniferus, Softshell turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	2	1	-	-
Chrysemys/Graptemys spp., Map/painted turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	1	-	-	-
Terrapene carolina, Box turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	262	10	18	-	1
Chelydra serpentina, Snapping turtle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Turtle fragments	-	-	-	-	1	1	-	1	-	-	-	-	-	-	-	-	412	-	78	-	-
Colubridae, Non-poisonous snake family	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60	1+	16	-	-
Viperidae, Poisonous snake family	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	1+	4	-	-
Serpent spp., Snake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	4	-	-
AMPHIBIANS																					
Rana/Bufo spp., Frog/Toad spp.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	1+	1	-	-
FISHES																					
Aplodinotus grunniens, Freshwater drum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	5	14	-	-
Ictalurus punctatus, Channel catfish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	5	-	-	-
Ictalurus spp., Catfish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-
Moxostoma spp., Redhorse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-
Catostomidae, Sucker family	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-
Cyprinidae, Minnow	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-
Amia calva, Bowfin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Fish fragments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	311	-	35	-	-
TOTAL	**1**	**2**	**8**	**6**	**3**	**3**	**5**	**1**	**1**	**7**	**1**	**4**	**10**	**2**	**3**	**1**	**8667**	**119**	**1844**	**19**	**36**

fox, domestic dog, gray wolf, muskrat, beaver, woodchuck, chipmunk, cottontail rabbit, common mole, and opossum. A substantial number of unidentified mammal and rodent fragments (*n*=4,852) accounted for 79.8% of the mammal sample, and 56.7% of the total vertebrate fauna assemblage.

Turkey was the most represented avifauna with 141 specimens and nine individuals. Bobwhite quail was the next most common species with two individuals, followed by one individual each of common crow, barred owl, sandhill crane, passenger pigeon, and Canada goose. Unspecified duck and perching bird were also present. Unidentified bird fragments (*n*=1,262) comprised 88.4% of the bird sample, and 14.7% of the total faunal assemblage.

Turtles and snakes constituted the identified reptile sample. Carapace and plastron fragments represented spiny softshell, snapping, map and/or painted, and box turtles. Box turtle was the most prevalent species, accounting for 262 specimens and ten individuals. Unidentified turtle remains (*n*=412) comprised 53.2% of the reptile sample. Vertebrae from at least one individual each of non-poisonous and poisonous snakes were also present.

Seven taxa of fish were identified from the sample of 69 specimens. Drumfish and channel catfish were well represented with five individuals each. Additional identified fish included catfish, redhorse, sucker, minnow, and bowfin. Unidentified fish fragments (*n*=311) accounted for 81.8% of the fish sample.

Cut and Modified Bone

Observable cut marks appeared on nineteen elements from 40SU15, including wapiti, deer, black bear, beaver, and turkey (Table 10 and Appendix F). The wapiti, deer, and black bear bones were primarily cut along the long bones and vertebrae, implying these marks were produced while the carcasses were being partitioned and defleshed. Several turkey tibiotarsi showed intentional scoring in an attempt to snap the bone in a specific manner (and at a particular point) to make awls or other tools and objects. One beaver incisor also displayed cut marks.

Thirty-six specimens of bone displayed modification as a result of human use or manufacture (see Table 10 and Appendix F). These items ranged from small, polished bone fragments to well-crafted tools. For example, Feature 101 yielded three antler tines used as tools for pressure flaking. Two of these artifacts were (for the most part) complete, whereas the third specimen was limited to a tip fragment.

Bone awls were a common Mississippian period tool used to punch holes in hides and other materials. Six awls from four different species were recovered from 40SU15 (Figure 57). Two awls were manufactured from right proximal deer ulnas. A second type of awl was exemplified by the recovery of two left turkey tarsometatarsi. One of these turkey specimens was from an adult male. The left distal femur shaft of a black bear was polished and comprised a very stout item. A somewhat gracile tip fragment from an unidentified bird constituted the final artifact. All of these artifacts were obtained during the 1993 reconnaissance and testing

program. Two specimens (one turkey and one deer) were recovered from Feature 20 in Strip Block B. The other three were retrieved from Strip Block B general midden fill. The unidentified bird awl was found in Test Unit 1 that was eventually encompassed by Strip Block B.

Two rather elaborate hairpin sections were also recovered from the Strip Block B area, one each from Features 20 and 36 (Figure 58). Features 20, 101, and 152 yielded additional pin fragments.

A left maxillary raccoon canine from Feature 20 was probably used as a pendant. Some scoring of the canine appeared around the apex of the root.

Additional modified specimens include an extensively ground and polished deer astragalus fragment, and one polished right mandibular beaver incisor. Several polished deer antler and miscellaneous long bone fragments of indeterminate objects were also present.

Figure 57. Bone awls: (a) bear left distal femur shaft; (b-c) turkey left tarsometatarsi;(d-e) deer right proximal ulna.

Figure 58. Bone hairpin sections.

Food Potential and Subsistence Variety

Table 11 presents a summary of the minimum number of individuals, and the amount of usable meat per edible taxon. Using these figures, white-tail deer account for the most important source of meat with over half (51.4%) of the total meat yield. Wapiti and black bear comprised the next most important meat sources with 22.6% and 15.3% of the total meat yield, respectively. The remainder of the mammal group (striped skunk, raccoon, gray fox, domestic dog, gray wolf, muskrat, beaver, fox and gray squirrels, woodchuck, cottontail rabbit, and opossum) contributed approximately 5% to the meat diet. As a meat source, birds accounted for about 4.0%. Turkey represented the primary species taken, followed by migratory avifauna as a group. The scant presence of fish signified either a sampling bias or limited procurement strategies that did not include an annual fish harvest. Fish were a meager source of meat with about 1% of the total meat yield.

The potentially edible animal species from Rutherford-Kizer are identified with three primary habitats or groups of habitats: (1) forest edge or open forest; (2) rugged forest uplands; and (3) aquatic/riparian habitat. Forest edge or open forest was by far the most significant habitat based upon combinations of meat yields. Animal species taken within or along the

forest edge or open forest habitat included wapiti, deer, fox squirrel, woodchuck, cottontail rabbit, and turkey. Nearly 80% of the edible meat source was obtained within forest edge or open wooded habitats.

Table 11. Summary of Meat Yields from 1993–1995 Excavations.

	Total	MNI	Meat Yield (Kg)	%	Burn	Cut	Mod
MAMMALS							
Cervus canadensis, Wapiti	15	2	318.0	22.6	1	2	1
Cervidae, Wapiti/Deer	1	-	-	-	-	-	-
Odocoileus virginianus, White-tailed deer	787	24	720.0	51.4	66	12	11
Mephitis mephitis, Striped skunk	2	2	6.4	0.5	-	-	-
Procyon lotor, Raccoon	11	1	5.8	0.4	1	-	1
Ursus americanus, Black bear	20	2	214.4	15.3	1	1	2
Urocyon cinereoargenteus, Gray fox	9	1	2.3	0.2	1	-	-
Urocyon spp., Fox spp.	1	-	-	-	-	-	-
Canis familiaris, Domestic dog	15	2	7.3	0.5	-	-	-
Canidae, cf. *lupus*, Gray wolf	1	1	21.6	1.5	-	-	-
Ondatra zibethicus, Muskrat	1	1	0.8	<0.1	-	-	-
Oryzomys palustris, Rice rat	43	7	-	-	-	-	-
Castor canadensis, Beaver	5	1	11.9	0.8	-	1	2
Sciurus niger, Fox squirrel	76	7	3.5	0.2	6	-	-
Sciurus carolinensis, Gray squirrel	75	5	2.0	0.1	9	-	-
Sciurus spp., Squirrel species	6	-	-	-	-	-	-
Marmota monax, Woodchuck	1	1	2.4	0.2	-	-	-
Tamais striatus, Chipmunk	1	1	-	-	-	-	-
Sylvilagus floridanus, Cottontail rabbit	33	2	1.2	<0.1	4	-	-
Scalopus aquaticus, Common mole	3	2	-	-	2	-	-
Didelphis marsupialis, Opossum	17	2	5.8	0.4	2	-	-
BIRDS							
Passerine spp., Perching birds	1	1	-	-	-	-	-
Corvus brachyrhynchos, Common crow	1	1	-	-	-	-	-
Strix varia, Barred owl	1	1	-	-	-	-	-
Grus canadensis, Sandhill crane	1	1	-	-	-	-	-
Ectopistes migratorius, Passenger pigeon	3	1	0.2	<0.1	-	-	-
Meleagris gallopavo, Wild turkey	141	9	52.2	3.7	9	2	6
Colinus virginianus, Bobwhite quail	10	2	0.2	<0.1	-	-	-
Anas et al., Mallard/Black/Pintail Duck spp.	2	1	0.2	<0.1	1	-	-
Branta canadensis, Canada goose	5	1	2.7	0.2	-	-	-
REPTILES							
Trionyx spiniferus, Softshell turtle	6	2	2.7	0.2	1	-	-
Chrysemys/Graptemys spp., Map/painted turtle	10	1	0.1	<0.1	-	-	-
Terrapene carolina, Box turtle	262	10	1.0	<0.1	18	-	1
Chelydra serpentina, Snapping turtle	1	1	4.5	0.3	-	-	-
Colubridae, Non-poisonous snake family	60	1+	trace	-	16	-	-
Viperidae, Poisonous snake family	15	1+	trace	-	4	-	-
AMPHIBIANS							
Rana/Bufo spp., Frog/Toad spp.	7	1+	trace	-	1	-	-
FISHES							
Aplodinotus grunniens, Drumfish	54	5	9.0	0.6	14	-	-
Ictalurus punctatus, Channel catfish	6	5	3.4	0.2	-	-	-
Ictalurus spp., Catfish	2	1	0.1	<0.1	-	-	-
Moxostoma spp., Redhorse	2	1	0.5	<0.1	-	-	-
Moxostoma spp., Sucker	2	2	1.0	<0.1	-	-	-
Cyprinidae, Minnow	2	1	-	-	-	-	-
Amia calva, Bowfin	1	1	0.5	<0.1	-	-	-
TOTAL	**1718**	**115**	**1401.7**	**100.0**	**157**	**18**	**24**

Species from rugged forested upland and denser wooded areas were a somewhat significant source of meat. Animals from these habitats (including black bear, gray squirrel, opossum, passenger pigeon, box turtle, and non-poisonous and poisonous snakes) comprised nearly 16% of the total meat yield.

A substantial variety of animal species acquired from the aquatic/riparian habitats accounted for about 2% of the total meat yield. These species included beaver, muskrat, mallard/black/pintail duck, softshell turtle, map/painted turtle, snapping turtle, frog/toad, drumfish, channel catfish, other catfish, redhorse, sucker, and bowfin.

Summary

The 40SU15 vertebrate faunal assemblage was characterized by a substantial reliance on animal species taken within or along forest edges and open forest habitats. Hunting white-tail deer was a primary means by which Rutherford-Kizer residents obtained meat and other by-products for daily existence. Complete dependence on a single resource, such as white-tail deer, was significantly offset by the presence of other large game animals (wapiti and wild turkey) that probably occupied the forest edge and open forested areas adjoining the site.

There was less reliance by the site occupants on species from the rugged forest uplands and bottomland aquatic/riparian habitats. Black bear characterized the primary species representative of more rugged upland habitats. Despite the wide variety of aquatic/riparian species from the site (beaver, muskrat, duck, assorted turtles and fish), they still constituted a very small percentage of the total meat yield. These results follow a similar subsistence pattern previously defined for other Mississippian period sites within the middle Cumberland region (Breitburg 1998).

The heavy reliance of 40SU15 residents on forest edge/open forest species can be easily understood with a brief review of the site location. The site was established along a low upland ridge that overlooks Drakes Creek, a tributary of the Cumberland River. The site area occupied the northern edge of the Central Basin immediately adjacent to the Highland Rim boundary. This ecotone supported a sufficient forest edge environment ideally suited for deer. On the other hand, human access to animal species within the more rugged uplands was accomplished at a minimal distance. Aquatic/riparian resources, although not relied upon, were easily obtained from the nearby stream.

An earlier model of Mississippian animal exploitation characterized a primary dependence on white-tailed deer, migratory avifauna, and seasonal fish use (Smith 1975). The Rutherford-Kizer site represents yet another example from the Middle Cumberland region that contrasts with this interpretation. Within the study area, human populations were oriented toward a subsistence pattern of large game (deer, wapiti, and bear) as well as turkey, and far less affected by seasonal variations in migrating bird and fish populations as were the prehistoric people living within the environs of the Mississippi River.

IX. FLORAL REMAINS

Andrea B. Shea and Michael C. Moore

Most of the floral assemblage from 40SU15 was recovered from pit features and postmolds exposed during the 1993 explorations. Intermittent opportunities arose during the subsequent 1994 and 1995 burial removals to recover samples from non-mortuary features. All floral remains from the Rutherford-Kizer site were retrieved from soil samples in the laboratory using fine waterscreen and flotation methods. These remains were then examined under a binocular microscope. A complete list of the recovered floral assemblage is presented in Table 12.

Wood Charcoal and Cane

Thirteen distinct tree species were identified from the wood charcoal sample, including maple, hickory, dogwood, redbud, ash, honey locust, red cedar, sweetgum, sycamore, black cherry, oak, black locust/osage orange, and elm. These species indicate the Rutherford-Kizer residents were exploiting bottomland forest as well as upland habitats for construction materials, fuel, and other needs. For example, black locust/osage orange trees were selected as posts (Features 528, 708, 733, and an undefined bastion post) for the fortified wall around the town.

Small amounts of cane were recovered from several refuse-filled pits and posts. This grass species is common in extensive stands throughout the Central Basin floodplains and terraces. Several upland stands overlooking floodplain-terrace settings have been observed in areas with permanent springs and seeps. Cane was an important resource used in the construction of house walls. Impressions are readily visible on daub fragments from sites throughout the Central Basin. In fact, a cluster of daub and charred cane fragments was observed within Feature 101 (Strip Block B).

Nuts

A substantial number of charred hickory nutshells were recovered from the three large refuse-filled pits (20, 36, and 101) in Strip Block B. Smaller amounts of charred black walnut hulls were present in pits 20 and 36. Both of these resources originate in terrace and upland settings.

Wild Fruits and Seeds

Small quantities of persimmon, honey locust, and cherry seeds were present in pits 20 and 36. These species are generally found in bottomland environments.

Table 12. Identified Floral Species from the 1993-1995 Excavations.

	Features																					
Species	**12**	**13**	**15**	**16**	**17**	**19**	**20**	**21**	**26**	**28**	**29**	**32**	**33**	**34**	**36**	**44**	**45**	**50**	**53**	**73**	**83**	**88**
WOOD/CANE CHARCOAL																						
Arundinaria sp., Cane	-	-	-	-	-	-	4	-	-	1	-	-	-	-	5	-	-	-	-	-	-	-
Acer sp., Maple	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Carya sp., Hickory	6	-	29	-	3	-	16	1	4	-	-	-	1	-	26	-	1	-	-	-	-	-
Cornus florida, Dogwood	-	-	-	-	-	3	4	-	-	-	-	-	13	-	6	-	-	-	-	-	-	1
Cercis canadensis, Redbud	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Fraxinus sp., Ash	-	-	-	-	1	-	8	-	-	-	-	-	-	-	9	-	-	-	-	-	9	-
Gleditsia triacanthos, Honey Locust	-	-	9	-	-	-	3	-	-	-	-	-	-	30	10	-	-	-	-	-	-	-
Juniperus virginiana, Red Cedar	2	-	-	-	-	-	3	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Liquidambar styraciflua, Sweetgum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Maclura pomifera /Robinia pseudoacacia, Osage Orange/Black Locust	-	-	2	-	-	-	10	-	-	1	1	10	6	-	23	2	4	-	-	8	2	12
Platanus occidentalis, Sycamore	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Prunus serotina, Black Cherry	-	-	-	-	-	1	3	-	3	1	-	-	-	-	5	-	-	-	-	-	5	-
Quercus sp., Oak	-	5	-	4	-	-	13	-	-	2	1	-	-	-	8	2	4	-	-	8	2	-
Ulmus sp., Elm	-	-	-	-	-	-	9	2	-	-	2	-	-	-	5	-	-	-	-	-	-	-
Vitis sp., Grapevine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Shrub	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Bark	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	8	-	-	-
Diffuse Porous	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NUTSHELL																						
Carya sp., Hickory	-	-	-	-	-	-	127+	-	1	-	-	-	-	-	100+	1	-	-	-	-	-	-
Juglans nigra, Black Walnut	-	-	-	-	-	-	3	-	-	-	-	-	-	-	25	-	-	-	-	-	-	-
SEED/FRUIT																						
Diospyros virgiana, Persimmon	-	-	-	-	-	-	1w	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gledtisia triacanthos, Honey Locust	-	-	-	-	-	-	1w	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phaseolus sp., Cultivated Bean	-	-	-	-	-	-	2f	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prunus sp., Cherry Pit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3f	-	-	-	-	-	-	-
MAIZE																						
cob segments	-	-	-	-	-	3	2	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-
cob fragments	-	-	-	-	-	1	2	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
kernels	-	-	-	-	-	-	4	-	-	-	-	-	-	-	1	-	-	-	-	2	-	-
cupules	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-

f = fragment
w = whole

Table 12. Identified Floral Species from the 1993-1995 Excavations (continued).

	Features																Bastion				
Species	**89**	**90**	**91**	**96**	**100**	**101**	**108**	**109**	**110**	**112**	**120**	**124**	**126**	**131**	**138**	**150**	**528**	**708**	**733**	**881**	**Post**
WOOD/CANE CHARCOAL																					
Arundinaria sp., Cane	-	2	1	-	-	2	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-
Acer sp., Maple	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carya sp., Hickory	4	1	1	8	-	30	-	-	-	-	10	4	1	18	-	12	-	-	-	-	-
Cornus florida, Dogwood	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cercis canadensis, Redbud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fraxinus sp., Ash	-	-	1	-	-	1	-	-	24	-	-	-	-	-	-	-	-	-	-	-	-
Gleditsia triacanthos, Honey Locust	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Juniperus virginiana, Red Cedar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Liquidambar styraciflua, Sweetgum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maclura pomifera /robinia pseudoacacia Osage Orange/Black Locust	-	-	3	-	-	12	-	30	-	4	2	8	3	7	-	-	30	60	30	-	30
Platanus occidentalis, Sycamore	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prunus serotina, Black Cherry	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Quercus sp., Oak	-	5	2	2	2	3	15	-	1	3	6	2	2	13	-	-	-	-	-	-	-
Ulmus sp., Elm	-	1	29	6	-	5	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-
Vitis sp., Grapevine	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2	-	-	-	-	-
Shrub	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bark	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-
Diffuse Porous	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NUTSHELL																					
Carya sp., Hickory	-	2	-	-	-	100+	-	-	1	1	2	-	-	-	-	-	-	-	-	-	-
Juglans nigra, Black Walnut	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SEED/FRUIT																					
Diospyros virgiana, Persimmon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gledtisia triacanthos, Honey Locust	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phaseolus sp., Cultivated Bean	-	-	-	-	-	4f	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prunus sp., Cherry Pit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAIZE																					
cob segments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
cob fragments	-	-	-	-	-	-	-	-	1	-	-	-	3	-	-	-	-	-	-	10	-
kernels	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
cupules	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

f = fragment
w = whole

Cultigens

Maize was one of two cultigens obtained from the 1993–1995 investigations (see Table 12). Charred cob sections, cob fragments, cupules, and kernels were recovered from four pits (Features 20, 36, 101, and 881) and four postmolds (Features 19, 73, 110, and 126). The largest individual sample of maize (ten cob fragments) came from Feature 881, a relatively small pit or depression that had been exposed in an early road cut. Division personnel observed this particular feature during a routine site inspection, and removed the fill just ahead of the road grader.

The analyzed maize assemblage revealed an assortment of eight, ten and twelve-row specimens (Table 13). For example, three cob segments from Feature 19 were eight-row specimens. Features 20, 101, 126, and 881 contained specimens with primarily ten and twelve-row numbers. A few eight-row specimens were also present in Features 20 and 881. On the other hand, specimens from Features 36 and 73 were exclusively twelve-row.

Two cultivated bean (*Phaseolus* sp.) fragments were recovered from the fill of Feature 20, a large pit feature with corrected radiocarbon date ranges (at 2-sigma) of AD 1281-1414 and AD 1299-1426. Beans are often coupled with maize and squash as the dietary "trinity" for Mississippian groups in the southeastern United States. Despite such lofty status, however, this particular cultigen is frequently absent from middle Cumberland Mississippian floral assemblages. This absence may be due in part to past recovery techniques, as beans have been recently identified from at least one house at the Kellytown site, 40WM10 (Barker and Kline 2013), and at Kelley's Battery, 40DV392 (Jones 1999).

Table 13. Measurements of Analyzed Maize from the 1993–1995 Excavations.

Provenience	Sample	Cupule Width	Cupule Length	Glume Width	Est Row Number	Actual Row Number	Kernel Width	Kernel Length	Kernel Thickness
Feature 19	Cob segment	6.5	2.0	4.0	-	8	-	-	-
		5.5	2.0	3.0	-	8	-	-	-
		6.0	2.0	3.5	-	8	-	-	-
		6.0	2.0	3.0	-	8	-	-	-
	Cob segment	6.0	2.0	3.0	-	8	-	-	-
		6.0	2.0	3.5	-	8	-	-	-
	Cob fragment	8.0	2.5	4.0	8	-	-	-	-
		9.0	2.0	4.5	8	-	-	-	-
Feature 20	Cob segment	4.0	1.5	2.5	10	-	-	-	-
		4.3	1.5	2.5	10	-	-	-	-
		4.5	1.5	2.0	10	-	-	-	-
	Cob segment	4.0	1.0	2.0	-	12	-	-	-
		4.0	1.0	2.0	-	12	-	-	-
	Cob fragment	9.0	1.5	4.5	8	-	-	-	-
		8.0	1.5	4.5	8	-	-	-	-
	Cob fragment	5.5	2.0	3.0	12	-	-	-	-
		6.0	2.0	3.0	12	-	-	-	-
	Cupule	9.0	2.5	-	10	-	-	-	-
	Kernel	-	-	-	-	-	9.0	6.0	4.5
	Kernel	-	-	-	-	-	8.5	8.0	2.5
	Kernel	-	-	-	-	-	5.5	5.5	3.0
	Kernel	-	-	-	-	-	4.5	4.0	3.0
Feature 36	Cob fragment	5.5	1.5	3.0	12	-	-	-	-
		5.5	1.5	3.0	12	-	-	-	-
	Cob fragment	6.0	1.5	4.0	12	-	-	-	-
		6.0	1.5	4.0	12	-	-	-	-
	Cupule	6.0	1.5	3.0	12	-	-	-	-

Table 13. Measurements of Analyzed Maize from the 1993–1995 Excavations (continued).

Provenience	Sample	Cupule Width	Cupule Length	Glume Width	Est Row Number	Actual Row Number	Kernel Width	Kernel Length	Kernel Thickness
	Cupule	6.0	1.0	3.0	12	-	-	-	-
	Kernel	-	-	-	-	-	7.0	4.0	4.0
Feature 73	Cob segment	4.5	1.0	3.0	12	-	-	-	-
		6.0	1.5	3.0	12	-	-	-	-
		5.0	1.0	2.5	12	-	-	-	-
		5.5	-	-	12	-	-	-	-
	Cob segment	5.0	1.5	3.0	12	-	-	-	-
		4.0	1.5	2.5	12	-	-	-	-
		5.0	1.5	3.0	12	-	-	-	-
		5.0	1.5	3.0	12	-	-	-	-
	Kernel	-	-	-	-	-	6.0	4.0	4.0
	Kernel	-	-	-	-	-	6.0	4.0	4.5
Feature 101	Cupule	9.0	1.5	3.5	10	-	-	-	-
	Cupule	8.0	1.0	-	10	-	-	-	-
	Cupule	7.0	1.5	-	10	-	-	-	-
	Cupule	5.5	1.0	3.5	12	-	-	-	-
	Kernel	-	-	-	-	-	8.5	4.5	5.0
Feature 110	Cob fragment	7.0	1.5	3.5	12	-	-	-	-
		7.0	1.5	3.5	12	-	-	-	-
	Kernel	-	-	-	-	-	7.0	7.0	3.5
Feature 126	Cob fragment	6.5	1.5	3.0	12	-	-	-	-
		6.0	1.5	2.5	12	-	-	-	-
	Cob fragment	7.0	2.0	4.0	12	-	-	-	-
		6.5	2.0	4.0	12	-	-	-	-
	Cob fragment	9.0	2.5	5.0	10	-	-	-	-
		8.5	3.0	5.0	10	-	-	-	-
Feature 881	Cob fragment	7.0	1.5	4.0	12	-	-	-	-
		6.5	1.5	3.5	12	-	-	-	-
	Cob fragment	7.0	1.5	4.0	12	-	-	-	-
		6.0	1.5	3.5	12	-	-	-	-
	Cob fragment	7.5	2.0	4.0	10	-	-	-	-
		8.5	2.0	4.0	10	-	-	-	-
	Cob fragment	8.5	2.0	5.0	10	-	-	-	-
		8.5	2.0	4.5	10	-	-	-	-
	Cob fragment	9.5	2.0	4.5	10	-	-	-	-
		9.5	2.0	4.5	10	-	-	-	-
	Cob fragment	9.5	2.0	-	10	-	-	-	-
		9.5	2.0	-	10	-	-	-	-
	Cob fragment	10.5	3.0	5.0	10	-	-	-	-
		10.5	3.0	5.0	10	-	-	-	-
	Cob fragment	7.0	2.0	3.0	12	-	-	-	-
		7.0	2.0	3.0	12	-	-	-	-
	Cob fragment	8.5	1.5	4.0	10	-	-	-	-
		9.0	2.5	4.5	10	-	-	-	-
	Cob fragment	11.0	2.5	5.5	8	-	-	-	-
		11.5	2.5	5.5	8	-	-	-	-

X. CERAMIC ARTIFACT DESCRIPTIONS

Kevin E. Smith and Michael C. Moore

A total of 9,770 vessel sections and pottery sherds (larger than 0.5 inch square) were analyzed from the 1993–1995 Rutherford-Kizer excavations (Table 14). The assemblage consisted of vessel rim and body sherds, along with attached or fragmentary appendages of various types (such as lug handles, strap handles, and effigy adornments). Pipe fragments, marbles, earplugs, trowel fragments, beads, pendants, and raw clay were among an additional collection of 61 non-pottery clay artifacts recovered from the site work. The semi-systematic manner in which much of the ceramic sample was recovered precluded many types of detailed comparative and statistical analyses. However, the relatively large sample size and close chronological control of site occupation does permit the first substantive definition of a diagnostic ceramic assemblage for the Thruston phase.

Vessel sherds were sorted on the basis of temper type and surface treatment. Analysis of such characteristics as paste, color, decoration, and thickness was also conducted. In general, the assemblage is representative of the extensive and intensive Mississippian period occupation as a major town, but also includes a smaller and less intensive Middle Woodland presence.

Shell Tempered Ceramic Types

Shell tempered ceramics formed the bulk of the Rutherford-Kizer assemblage. Continuing discussions concerning the analysis of plain-surfaced, shell-tempered ceramics have ensued throughout the Middle Cumberland region, as well as the southeastern United States (Clay 1963; Phillips et al. 1951; Phillips 1970; Steponaitis 1983; Trubitt 1998; Walling et al. 2000). However, the two “supertypes” of Mississippi Plain and Bell Plain have been retained for consistency with prior published materials (see Phillips 1970).

Mississippi Plain

Sample size: n=7,313 sherds (475 rim, 6,778 body, 60 handle [18 strap, 29 bifurcate lug, 13 unidentified lug]).

Paste: The paste is generally poor to moderately compact, with coarse ground mussel shell as the primary temper. These platy temper particles are often in excess of 5.0 mm in size. Grit particles commonly occur within the paste, but these are considered to be natural inclusions in the clay matrix. Several sherds with a compact paste and somewhat finer temper particles (between 2.0 mm and 4.0 mm in size) have been included in this sample.

Surface finish (exterior): Generally smoothed, although the amount can vary from rather fine to uneven. At times the exterior surface is rough to the touch due to the large temper particles. Large linear holes from leached temper particles are often visible.

Table 14. Ceramic Sherds/Vessels from the 1993-1995 Investigations.

	SHELL TEMPER														OTHER TEMPERS									
Provenience	Miss Plain	Bell Plain	Kim Fbr	Kim Pln	Kim Und	Crd	Chk Stp	MtIn Matt	MtIn Mnly	Bck Inc	MdPl Inc	Und Inc	Neg Pnt	Eff Frg	McaS Pln	McaS CmSt	Lst Crd	Lst Stp	Qz Pln	Qz Crd	Grt Pln	Grt Crd	No Tm	TOTAL
General Surface	166*	48	51	2	11	2	-	3	1	-	-	-	1	4d,1fi 1h,6u	-	1	3	1	-	-	1	-	1	304
Monument	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Test Unit 1, Lv1	106	24	-	-	-	-	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	133
Test Unit 1, Lv2	151	37	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	191
Test Unit 2, Lv1	276	54	12	-	2	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	348
Test Unit 3, Lv1	44	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	51
Fill, Strip Block A	57	18	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	78
Fill, Strip Block B	586	128	20	3	10	-	-	1	2	-	-	-	3	2u	-	-	-	-	1	-	-	-	3	759
Fill, Strip Block C	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Fill over F20/36	272	65	6	1*	3	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	350
Plow Strip A1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Plow Strip A2	21	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28
Plow Strip A3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Plow Strip A4	39	9	-	-	-	-	-	-	-	-	-	-	-	1h	-	-	-	-	-	-	-	-	-	49
Plow Strip A5	28	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33
Plow Strip A6	29	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36
Plow Strip B1	30	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38
Plow Strip B2	16	3	1	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	20
Plow Strip B3	13	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Plow Strip B4	20	3	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25
Plow Strip B5	22	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28
Plow Strip B6	34	8	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	45
Plow Strip C1	6	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Plow Strip C2	58	14	2	-	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	77
Plow Strip C3	29	12	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
Plow Strip C4	50	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64
Plow Strip C5	56	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63
Plow Strip C6	25	6	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32
Plow Strip C7	30	9	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	40
Plow Strip D1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip D2	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Plow Strip D3	9	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Plow Strip D4	23	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32
Plow Strip D5	20	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25
Plow Strip D6	30	3	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34
Plow Strip D7	35	7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
Plow Strip E1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip E2	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Plow Strip E3	13	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Plow Strip E4	20	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21
Plow Strip E5	14	3	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	19
Plow Strip E6	15	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18

Table 14. Ceramic Sherds/Vessels from the 1993-1995 Investigations (continued).

	SHELL TEMPER														OTHER TEMPERS									
Provenience	Miss Plain	Bell Plain	Kim Fbr	Kim Pln	Kim Und	Crd	Chk Stp	MtIn Matt	MtIn Mnly	Bck Inc	MdPl Inc	Und Inc	Neg Pnt	Eff Frg	McaS Pln	McaS CmSt	Lst Crd	Lst Stp	Qz Pln	Qz Crd	Grt Pln	Grt Crd	No Tm	TOTAL
Plow Strip E7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Plow Strip E8	7	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Plow Strip F1	5	2	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Plow Strip F2	15	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Plow Strip F3	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Plow Strip F4	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Plow Strip F5	8	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Plow Strip F6	30	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33
Plow Strip F7	31	5	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37
Plow Strip F8	7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Plow Strip G1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Plow Strip G2	12	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Plow Strip G3	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Plow Strip G4	5	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Plow Strip G5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Plow Strip G6	18	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Plow Strip G7	14	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Plow Strip G8	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip H1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Plow Strip H2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip H4	16	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
Plow Strip H5	6	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Plow Strip H6	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip H7	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Plow Strip I2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip I3	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip I4	6	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Plow Strip I5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip L9	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip M4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip N9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	2
Backhoe Trench A	14	5	3	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Backhoe Trench K	477	128	23*	-	1	-	-	3	4	-	-	1	-	1h	-	-	1	-	-	-	-	-	-	639
Burial 11	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42
Burial 14	121	33	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	155
Burial 17	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
Burial 19	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
Burial 21	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Burial 22	5	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Burial 33	129	-	-	-	32	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	164
Burial 34	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Burial 39	103	69	1	-	-	-	-	-	-	-	-	-	2	1u	-	-	-	-	-	-	-	-	-	176
Burial 53	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13

Table 14. Ceramic Sherds/Vessels from the 1993-1995 Investigations (continued).

	SHELL TEMPER														OTHER TEMPERS									
Provenience	Miss Plain	Bell Plain	Kim Fbr	Kim Pln	Kim Und	Crd	Chk Stp	MtIn Matt	MtIn Mnly	Bck Inc	MdPl Inc	Und Inc	Neg Pnt	Eff Frg	McaS Pln	McaS CmSt	Lst Crd	Lst Stp	Qz Pln	Qz Crd	Grt Pln	Grt Crd	No Tm	TOTAL
Burial 60	8	17	-	-	-	-	-	-	-	-	-	-	-	1h	-	-	-	-	-	-	-	-	-	26
Burial 61	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Burial 70	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Burial 80 (ves 1)	-	1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Burial 80 (ves 2)	-	-	-	-	-	-	-	-	-	-	-	-	-	1fr*	-	-	-	-	-	-	-	-	-	1
Burial 81	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70
Burial 85	-	-	-	-	-	-	-	-	-	-	-	-	-	1d*	-	-	-	-	-	-	-	-	-	1
Burial 87	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Palisade Trench	2*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Structure 5 Trench	7	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Feature 1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 3	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Feature 4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 9	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 11	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 12	8	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	11
Feature 13	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 14	159	70	2	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	234
Feature 15	33	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36
Feature 16	11	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	16
Feature 17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Feature 18	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 20	442*	85	56*	2	10	-	-	1	-	-	-	-	1	1fi,1h	-	14	-	-	-	-	-	-	-	613
Feature 21	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Feature 26	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 27	13	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Feature 28	12	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Feature 29	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 30	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Feature 34	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 35	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Feature 36	758	307	46*	-	7	-	-	6	1	-	-	-	9	2d,1fi 2h,6u	-	2	1	-	1	-	-	-	-	1149
Feature 37	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 39	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 40	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 43	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 44	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Feature 45	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Feature 46	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 49	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 50	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

Table 14. Ceramic Sherds/Vessels from the 1993-1995 Investigations (continued).

	SHELL TEMPER														OTHER TEMPERS									
Provenience	Miss Plain	Bell Plain	Kim Fbr	Kim Pln	Kim Und	Crd	Chk Stp	MtIn Matt	MtIn Mnly	Bck Inc	MdPl Inc	Und Inc	Neg Pnt	Eff Frg	McaS Pln	McaS CmSt	Lst Crd	Lst Stp	Qz Pln	Qz Crd	Grt Pln	Grt Crd	No Tm	TOTAL
Feature 51	9	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Feature 52	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 56	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 57	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 59	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 62	6	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Feature 64	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 66	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 67	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 68	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 70	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 71	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 80	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 81	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 82	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 83	21	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22
Feature 84	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 86	6	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Feature 87	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 88	4	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Feature 89	36	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	45
Feature 90	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Feature 91	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Feature 92	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 93	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 95	4	1	3	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Feature 96	20	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24
Feature 100	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 101	1175*	284	24*	4	2	2	-	8	1	-	2	7	-	2u	-	-	-	-	-	-	-	-	-	1511
Feature 102	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 105	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 106	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 107	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Feature 108	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 109	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 110	14	2	-	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
Feature 112	18	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21
Feature 113	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 114	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 118	8	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Feature 119	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 120	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 123	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

Table 14. Ceramic Sherds/Vessels from the 1993-1995 Investigations (continued).

	SHELL TEMPER														OTHER TEMPERS									
Provenience	Miss Plain	Bell Plain	Kim Fbr	Kim Pln	Kim Und	Crd	Chk Stp	MtIn Matt	MtIn Mnly	Bck Inc	MdPl Inc	Und Inc	Neg Pnt	Eff Frg	McaS Pln	McaS CmSt	Lst Crd	Lst Stp	Qz Pln	Qz Crd	Grt Pln	Grt Crd	No Tm	TOTAL
Feature 124	5	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Feature 126	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 128	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 129	6	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Feature 131	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Feature 136	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 139	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Feature 140	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Feature 143	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 146	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 150	6	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Feature 152	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Feature 156	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Feature 157	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 162	57	10	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70
Feature 194	84	31	1	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	121
Feature 196	25	8	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34
Feature 211	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 359	90	22	2	-	-	-	-	2	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	118
Feature 360	21	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29
Feature 361	13	7	1	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Feature 365	9	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Feature 371	26	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28
Feature 392	36	15	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53
Feature 425	-	5	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Feature 500	3	-	2	-	-	-	-	1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Feature 587	11	1	1	-	-	-	-	-	-	-	-	-	-	1fi	-	-	-	-	-	-	-	-	-	14
Feature 588	21	5	7*	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34
Feature 694	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 695	8	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
Feature 696	5	5	1	-	1	-	-	-	-	-	-	-	-	1h	-	-	-	-	-	-	-	-	-	13
Feature 702	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 710	16	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22
Feature 715	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Feature 717	9	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Feature 738	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 739	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	11
Feature 740	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	7
Feature 741	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	7
Feature 799	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 863	10	-	-	-	-	-	-	-	-	-	-	-	-	1d,1g?	-	-	-	-	-	-	-	-	-	12
Feature 868	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 880	217	59	6	-	-	-	-	1	-	-	-	-	5	1d?	-	-	-	-	-	-	-	-	-	289

Table 14. Ceramic Sherds/Vessels from the 1993-1995 Investigations (continued).

	SHELL TEMPER														OTHER TEMPERS									
Provenience	Miss Plain	Bell Plain	Kim Fbr	Kim Pln	Kim Und	Crd	Chk Stp	MtIn Matt	MtIn Mnly	Bck Inc	MdPl Inc	Und Inc	Neg Pnt	Eff Frg	McaS Pln	McaS CmSt	Lst Crd	Lst Stp	Qz Pln	Qz Crd	Grt Pln	Grt Crd	No Tm	TOTAL
Feature 882	1*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
TOTALS	**7313**	**1835**	**309**	**13**	**91**	**6**	**2**	**51**	**10**	**1**	**2**	**9**	**24**	**40**	**1**	**17**	**20**	**2**	**2**	**11**	**1**	**6**	**4**	**9770**

Miss Plain=Mississippi Plain; Kim Fbr=Kimmswick Fabric Impressed; Kim Pln=Kimmswick Plain; Kim Und=Kimmswick Unidentified; Crd=Cordmarked; Chk Stp=Check Stamped; MtIn Matt=Matthews Incised, variety Matthews; MtIn Mlny=Matthews Incised, variety Manly; Bck Inc=Beckwith Incised; Und Inc=Unidentified Incised; MdPl Inc=Mound Place Incised; Neg Pnt=Negative Painted; Eff Frg=Effigy vessel or fragment; MicaS CmSt=Micaceous Sand Tempered, Complicated Stamped; Lst Crd=Limestone Tempered, Cordmarked; Lst Stp=Limestone Tempered, Simple Stamped; Qz Pln=Quartz Tempered, Plain; Qz Crd=Quartz Tempered, Cordmarked; Grt Pln=Grit Tempered, Plain; Grt Crd=Grit Tempered, Cordmarked; Sd Pln=Sand Tempered, Plain; No Tp=Untempered sherd; d=duck effigy; fi=fish effigy; fr=frog effigy; h=human effigy; u=unidentified effigy fragment.

* = includes partial or nearly complete vessel.

Surface finish (interior): As with the exterior surface, the interior finish can be highly variable. Usually not quite as smooth as the exterior surface, but can still range between somewhat fine to uneven. This surface often rough to the touch due to the large temper particles. Linear holes from leached temper particles often visible.

Color: The exterior, core, and interior surfaces can be quite variable in color from one sherd or vessel to the next. Orange-red, tan, brown, and black comprise the more dominant colors for each surface.

Form: Includes virtually all known vessel forms, including jars, bowls, pans, plates, and bottles. However, large jars with direct rims and flattened lips represent a very common form within the 40SU15 assemblage.

Decoration: None, by definition.

Dimensions: Most body sherds range between 4.3 mm and 11.1 mm in thickness. Rim thickness is variable and generally dependent on the vessel form. The common direct jar rims with flattened lips generally range between 5.4 mm and 9.6 mm in thickness.

Comments: Mississippi Plain is the majority and ubiquitous type for the Mississippian period in the Middle South (cf. Phillips 1970).

Bell Plain

Sample size: n=1,835 sherds (272 rim, 1,554 body, 9 strap handle).

Paste: These sherds exhibit a compact paste with finely crushed mussel shell as the tempering agent. Temper particles within this type generally do not exceed 1.0 mm in size. Other particles (such as grit) are rarely visible within the paste.

Surface finish (exterior): These exterior surfaces are generally well finished, and often burnished and/or polished. More often than not these sherds are smooth to the touch, without the roughened texture visible on more coarse shell-tempered wares.

Surface finish (interior): Virtually the same as mentioned for the exterior surfaces, with the exception of some bottle forms. Many bottles (especially hooded) tend to have less well finished interior surfaces, without the polish visible on other vessel forms (such as bowls).

Color: Black is a primary exterior and interior surface color for the 40SU15 sample. Probably the most common core color was gray. Other common exterior and interior colors include light gray to dark tan.

Form: Includes most known vessel forms, but more commonly found in bowls, bottles, and effigy forms.

Decoration: None, by definition.

Dimensions: Body sherd thickness ranges between 2.4 mm and 7.9 mm. Most Bell Plain vessels tend to be thicker near the base than around the rim (especially bottles).

Comments: Like Mississippi Plain, Bell Plain is a common type with broad usage throughout the southeastern United States (Phillips 1970; Phillips *et al*. 1951:122–127).

Kimmswick Fabric Impressed

Sample size: n=309 sherds (83 rim, 226 body).

Paste: The vast majority of sherds from 40SU15 display a poorly compacted paste, with vast amounts of coarsely crushed shell as the temper. These particles are usually large, often

exceeding 8.0 mm in size. Several specimens, however, did have a somewhat moderately compact paste with more finely crushed mussel shell (up to 3.0 mm in size).

Surface finish (exterior): Apparently unfinished, as by definition the exterior surfaces display the impressions of fabric.

Surface finish (interior): For as coarse as the exterior surface can be, the interior surface offers quite a contrast. These surfaces are well finished, often very smooth to the touch.

Color: Light orange and dark brown comprise the primary exterior and interior colors. Several specimens with black exterior surfaces are also present. Core colors range from orange to tan to light black.

Form: Primarily shallow basin pans. Several sherds do suggest a deeper, more bowl-like form.

Decoration: As suggested in the definition, this ware displays fabric impressions along the vessel exterior surface/underside, and occasionally along the base of the rim, (see Appendix G).

Dimensions: Rims sherds in the 40SU15 assemblage average 20.0 mm thick, just over two times the thickness of body sherds. Rims have quite a range of thickness, from 13.2 mm to 39.8 mm. Vessel body thickness is also quite variable, ranging from 3.5 mm to 19.5 mm.

Comments: The type subsumes all outsize round or flat-bottomed pans on coarse, shell-tempered ware with fabric impressions on the exterior (Phillips 1970:95–96). Traditionally termed "salt pans," these vessels probably served a variety of functions, including evaporation of brine at some locales, communal serving vessels, and large stationary cooking vessels. The size and precise form of these vessels is often difficult to judge, since whole or partial reconstructed vessels are rare and sherd profiles are extremely uneven and variable on single vessels. Diameters are generally, however, greater than 30 cm.

The general presumption is that these vessels were molded in excavated pits lined with fabrics, perhaps designed to help lift and/or separate these generally large vessels after drying to a relatively firm consistency.

<u>Kimmswick Plain</u>

Sample size: *n*=13 sherds (6 rim, 7 body).

Paste: The paste of this type is generally a bit more compact than observed in the fabric impressed specimens. The temper particles, although still abundant, tend to be a bit more evenly crushed, and rarely exceed 4.0 mm in size. However, this observation does not hold true for all specimens. For example, one very large and very thick vessel section (including rim) exhibits no fabric impression, but is indistinguishable from the previously described fabric impressed ware. The paste is poorly compact, with very coarse and large crushed mussel shell particles up to 17.0 mm in size.

Surface finish (exterior): Somewhat smoothed and (in some cases) uneven. A bit rough to the touch due to temper particle size. Large holes left from leached temper.

Surface finish (interior): Generally well smoothed, virtually identical to the fabric impressed ware.

Color: Exterior surfaces range from orange to light black. Core colors generally orange to dark gray. Interior colors range from orange to tan to light brown.

Form: The current sample is restricted to shallow basin shapes.

Decoration (exterior/underside): None, by definition.

Dimensions: As with the fabric impressed ware, these rim and body sherds display a very wide range in thickness. Rims vary from 12.8 mm to 33.8 mm thick. Body sherds are not quite as variable, ranging between 8.1 mm and 17.3 mm.

Comments: Kimmswick Plain is a plain surface variant of Kimmswick Fabric Impressed (Clay 1963:250–255; Williams 1954:219–200). The vessel form is generally a large, shallow basin-shaped pan with diameters generally greater than 30 cm. Sorting of Kimmswick Plain from Mississippi Plain is difficult with small body and rim sherds, and it is generally presumed that the vessel counts are deflated for this particular type as a result.

Kimmswick, Type Unidentified

Sample size: *n*=91 sherds (58 rims).

Comments: A number of rim sherds were clearly from pans, but their small size did not permit identification as either fabric impressed or plain. Since fabric impressions often do not extend to the rim edge of Kimmswick Fabric Impressed, these sherds were not identified as to type.

Figure 59. Shell tempered, cordmarked sherds.

Shell Tempered, Cordmarked (Figure 59)

Sample size: *n*=6 (2 rim, 4 body).

Paste: Each of these sherds exhibits a moderately compact paste with crushed mussel shell as the primary temper. The shell temper particles vary greatly in size within the same

sherd, from about 1.0 mm to over 6.0 mm. Grit particles observed in several sherds appear to be part of the natural clay matrix.

Surface finish (exterior): On the rim sherds, the cordmarking begins just below the rim handle. Surfaces without cordmarks appear smoothed, but not particularly well smoothed.

Surface finish (interior): Interior surfaces fall within the somewhat moderate to moderately smoothed range. This characteristic is hard to tell on several sherds due to the holes created by leached temper particles.

Color: Exterior colors range from orange to tan to light black. Orange to light black comprise the core colors. Interiors are tan to dark gray.

Form: The two rim sherds come from jars with direct rims. One rim sherd displays a rounded and slightly flattened lip, along with a strap handle. The second rim has a single semi-lunar lug just below a rounded lip.

Decoration: Vertical cordmarking visible along the exterior surface. Cordmarks begin at the neck and shoulder juncture. The cordmarks are smoothed-over, but this might be due to exposure rather than an intentional decoration technique.

Dimensions: Rim thickness ranges between 5.3 mm and 7.1 mm. Body sherd thickness falls between 4.4 mm and 10.1 mm.

Comments: This particular ware is comparable to McKee Island Cordmarked (Heimlich 1952).

Shell Tempered, Check Stamped (Figure 60)

Sample size: *n*=2 body.

Paste: These sherds exhibit a moderate to compact paste with crushed mussel shell as the temper. The temper particles are generally fine, although some particles up to 3.0 mm in size are present.

Surface finish (exterior): Hard to tell due to check stamping.

Surface finish (interior): Moderately smoothed, with one sherd better finished than the other. Temper leaching has made the less-smoothed sherd's interior surface a little rough.

Color: One sherd exhibits a brownish-gray exterior, core, and interior. The second sherd has a brownish-orange exterior, dark gray core, and black interior.

Form: The size of these sherds makes a vessel form difficult to discern.

Decoration: Check stamping visible on the exterior surface. The checks measure roughly 3.5 mm in size.

Dimensions: These body sherds range from 6.3 mm to 7.7 mm in thickness.

Comments: These two sherds actually look quite different. One sherd has a moderate compact paste, leached temper appearance, and homogenous color. The second sherd has a more compact paste, generally smaller temper particle size with no leaching, variable color, and a well-smoothed interior surface.

Figure 60. Shell tempered, check stamped sherds.

Matthews Incised

Matthews Incised vessels have a long temporal and spatial distribution (Phillips 1970:127–128). Examination of several hundred whole and partial vessels from the Middle Cumberland region suggests that Matthews Incised ware (particularly *variety Matthews*) depict an increasingly stylized representation of a lobed jar (i.e. phytoform). Early jar and hooded bottle forms exhibit lobes generally interpreted as representative of local squash/gourd forms. Slightly later vessels display lobes highlighted with incised arch decorations. Subsequently, the vessel lobes appear to be dropped entirely and the phytoform is entirely stylized as Matthews Incised *variety Matthews*. The interpretation of *variety Manly* is somewhat equivocal with available data, but appears to be slightly later in occurrence. Often, the punctated arch motif co-occurs with an incised arch motif. Only rarely does the punctated arch occur in isolation.

Matthews Incised, variety Matthews (Figure 61)

Sample size: *n*=51 (12 rim [4 strap handles on rim sherds], 39 body).

Paste: Matthews Incised paste is highly variable with examples that would conform to either Mississippi Plain or Bell Plain. The paste tends to be moderately compact to compact with crushed mussel shell as the tempering agent. Some sherds do have grit particles, but, as in other wares, these particles appear to be part of the natural clay matrix. Matthews Incised specimens with a paste similar to Mississippi Plain tend to have temper particles of a more moderate size.

Figure 61. Matthews Incised, *variety Matthews*.

Surface finish (exterior): Generally well smoothed, especially those vessels with Bell Plain-like paste. Specimens with Mississippi Plain-like paste tend to be a bit more rough due to the temper particle size.

Surface finish (interior): Generally well smoothed, although in many cases not quite to the degree of the exterior surfaces. Several sherds exhibit rather rough interior surfaces, possibly due to use.

Color: Exterior surfaces range from brown to tan to gray. Core colors tend to be tan and various shades of gray. Interior surfaces have colors of gray, tan, brown, and black.

Form: Primarily jars with direct rims and flattened or partially flattened lips (some of these jars are lobed). Strap handles appear on several specimens. The sample also includes one everted rim jar with a flattened lip.

Decoration: Subsumes one or more arched incisions on the rim and/or shoulder of standard jars.

Dimensions: Rims measure between 4.5 mm and 5.3 mm thick. Body sherds range between 3.5 mm and 9.1 mm in thickness. Those specimens with Mississippi Plain-like paste tend to be a bit thicker.

Comments: Most of the current sample reflects a single incised line designated subvariety A (Smith 1992). Several specimens (Features 101 and 392) display two incised lines defined as subvariety B (Walling et al. 2000).

Matthews Incised, variety Manly (Figure 62)

Sample size: *n*=10 (9 body, 1 strap handle).

Paste: These sherds also exhibit a highly variable paste with examples that would conform to either Mississippi Plain or Bell Plain. The paste is moderately compact with rather fine-crushed mussel shell as the temper. The temper particles rarely exceed 2.0 mm in size. As with *variety Matthews*, the *variety Manly* sherds with Mississippi Plain-like paste tend to be a bit thicker.

Surface finish (exterior): Generally well smoothed.

Surface finish (interior): Generally well smoothed.

Color: The exterior surfaces of the 40SU15 sample exhibit quite a range of colors, including orange-brown, tan, gray, brown, and black. Gray and brown are the dominant core colors. Interior surfaces range from gray to black.

Form: These sherds originate from direct rim, flattened lip jars. One strap handle is present in the sample.

Figure 62. Matthews Incised, *variety Manly*.

Decoration: Arched incisions executed with an undulating series of punctations. Several sherds display punctations in single, double, and triple rows.

Dimensions: These body sherds measure 3.1 mm to 6.5 mm in thickness.

Comments: As a group, these sherds tend to be on the small side when compared to other pottery specimens from the site area. The reason for this size difference may be that they tend to be thinner than many of the other types, and therefore more likely to fracture when exposed to earthmoving activity.

Beckwith Incised (Figure 63)

Sample size: n=1 rim.

Paste: This single sherd has a paste that would conform to Mississippi Plain. The paste is moderately compact with crushed mussel shell as the temper. The temper particles reach up to 2.6 mm in size.

Surface finish (exterior): Generally well smoothed. Platy holes from leached temper particles have made the exterior surface a bit rough.

Figure 63. Beckwith Incised and Mound Place Incised sherds.

Surface finish (interior): As with the exterior, the interior surface is generally well smoothed. The leached temper has left numerous platy holes.

Color: The exterior surface is light brown, whereas the core and interior surfaces are light gray.

Form: This sherd denotes a jar with a direct rim and flattened lip.

Decoration: Angular guilloche design along the jar neck and shoulder.

Dimensions: Rim thickness is 5.4 mm.

Comments: This specimen of Beckwith Incised was recovered from Feature 359. Beckwith Incised has often been subsumed as a variety of Matthews Incised. However, the original definition of Beckwith Incised as a separate type seems more appropriate.

Beckwith Incised subsumes incision with a fine pointed implement or rectilinear or curvilinear guilloche design elements on the shoulders of standard jars. The design elements are strikingly distinct from the notion of arched incisions on Matthews Incised.

Mound Place Incised, *variety Chickasawba* (see Figure 63)

Sample size: n=2 rim.

Paste: The paste is moderately compact to compact with crushed mussel shell as the temper. The temper particles are generally less than 1.0 mm in size, but at times reach 1.5 mm.

Surface finish (exterior): Generally well smoothed.

Surface finish (interior): Generally well smoothed.

Color: The exterior surfaces range from orange-brown to brown. The core colors are dark gray to brown. Brown is the color of the interior surfaces.

Form: Hemispherical or nearly cylindrical bowls. These bowls display vertical or slightly incurvate rims with flattened lips.

Decoration: The decoration consists of two or more incised lines placed parallel to or just below the vessel rim. Incised festoons are also present below the vessel rim.

Dimensions: The two specimens from 40SU15 exhibit different thickness measurements. One sherd has a rim thickness of 4.4 mm, whereas the second rim has a thickness of 7.4 mm.

Comments: In general, Mound Place Incised describes a decorative treatment on Bell Plain ware limited to simple hemispherical bowls or occasionally nearly cylindrical bowls, both with vertical or slightly incurvate rims (Phillips et al. 1951:147–148; Phillips 1970:135–136). Two provisional varieties are described (*varieties Mound Place* and *Chickasawba*), but they are not readily distinguished without relatively large portions of vessels. *Variety Chickasawba* is distinguished from *variety Mound Place* only on the basis of "festoons" that dip down beneath effigy heads and tails and sometimes in loops on the sides. Whole and partially reconstructed vessels from the Middle Cumberland region all appear to correspond to the *Chickasawba* variety. Both identified sherds of Mound Place Incised were recovered from Feature 101. These two sherds exhibit part of a festoon and are herein assigned as *variety Chickasawba*.

Unidentified Incised

Sample size: n=9 body.

Comments: These rather small, incised body sherds are shell tempered and could not be confidently assigned to a recognized type. The paste of these specimens is highly variable, and could conform to either Mississippi Plain or Bell Plain.

Nashville Negative Painted, *variety Nashville* (Figures 64 and 65)

Sample size: n=24 (1 bottle rim, 20 probable bottle body, and three owl effigy head fragments from hooded effigy bottles). Edwin Curtiss recovered two additional specimens (one owl effigy hooded bottle and one human effigy hooded bottle from his excavations in 1878.

Figure 64. Selected negative painted body sherds from Features 36 and 880.

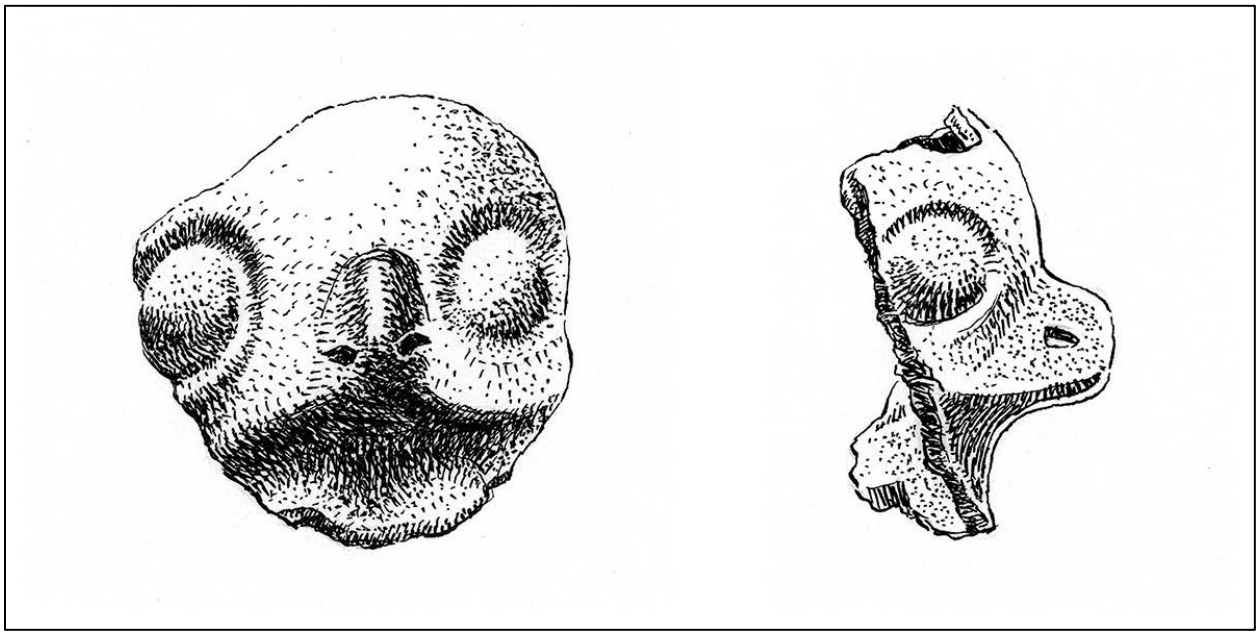

Figure 65. Negative painted owl bottle fragment from fill above Features 20 and 36.

Paste: The paste of these sherds is compact with extremely fine-crushed mussel shell as temper. All temper particles are less than 1.0 mm.

Surface finish (exterior): Highly smoothed.

Surface finish (interior): Generally highly smoothed, but several body sherds display a somewhat rough interior surface.

Color: The primary exterior colors are buff to light buff-orange to light orange. Core colors typically buff to gray to light orange. Interior colors are buff and light orange.

Form: Carafe-neck and hooded effigy bottles.

Decoration: Negative painting on exterior surface. The sherds recovered from the 1993–1995 work were limited in size, with several exhibiting brown lines on a buff surface. The owl bottle (PM 79-4-10/17247) recovered by Curtiss in 1878 displayed brown curvilinear (sun circle) motifs (see report cover).

Dimensions: The bottle rim measures 6.1 mm in thickness. Body sherd thickness ranges between 4.0 mm and 7.2 mm.

Comments: Negative-painted ceramics in the interior Southeastern United States have seen some renewed interest, particularly in the Lower Ohio Valley, as a result of the work of Sherri Hilgeman (1985, 1991). Traditionally, the distribution of negative painting north of Mexico has been limited to three major areas: (1) Lower Ohio Valley; (2) Cairo Lowlands/Sikeston Ridge region of southeast Missouri; and (3) Nashville Basin region of central Tennessee.

Type-variety designations of negative-painted ceramics have toggled between differentiation into several distinct types, and subsumed under a single type with regional varieties. Phillips (1970) described the type Nashville Negative Painted, with several tentatively defined varieties. More recently, Hilgeman divided the negative-painted horizon into four major types: Angel Negative Painted, Kincaid Negative Painted, Nashville Negative Painted, and Sikeston Negative Painted. While increasing attention has been paid in recent years to refining the definition of Angel and Kincaid Negative Painted ceramics, the Cumberland River version or Nashville Negative Painted has seen only minimal re-examination.

Phillips et al. (1951:174) suggested that "negative painting on a white slip [was] evidently the definitive decorated pottery for the Cumberland."

Effigy Fragments (Figures 66–68)

Sample size: n=40 (9 duck, 8 human, 4 fish, 1 frog, 1 possible gourd, 17 unidentified).

Paste: The somewhat variable pastes observed for these artifacts conform to both Mississippi Plain and Bell Plain. A medallion human head has the coarsest shell temper of any effigy fragment, with particles up to 3.6 mm in size. Most of the specimens, however, have finely crushed mussel shell temper and easily fall within Bell Plain ware.

Forms: Bowls and bottles.

Comments: Specimens from the 1993–1995 collection with structural or modeled effigy decorations, including rim-rider heads and tail lugs, are placed in this category. Not included in this category are the negative painted owl effigy fragments. This effigy

assemblage does include representations of humans as well as animals (namely duck, fish, and frog). One possible vegetable effigy (gourd?) is also present.

Four hooded bottle sections, three rim rider head fragments, and one medallion head comprise the human sample. The hooded bottle sherds include two very large blank face head sections, and two top knot fragments. One rim-rider human head is hollow and originally served as a rattle. The other two rim-rider heads are solid. The medallion head is solid, and was likely one of four attached just below the rim of a standard bowl form.

Among the animal representations are four duck head fragments as well as three probable duck tail lugs. The duck head rim-rider fragments (from oval, standard rim bowls) represent four different individuals, including a mallard and possibly a wood duck. The tail lugs range from common "handle" shapes to elaborate incised designs. Several fish head fragments from probable restricted orifice bowls are also present. Part of a small frog (restricted orifice) bowl was recovered from a multiple child burial (Burial 80). Seventeen sherds were unidentifiable as to effigy form, but were sufficiently large to suggest fragments of heads or lug tails.

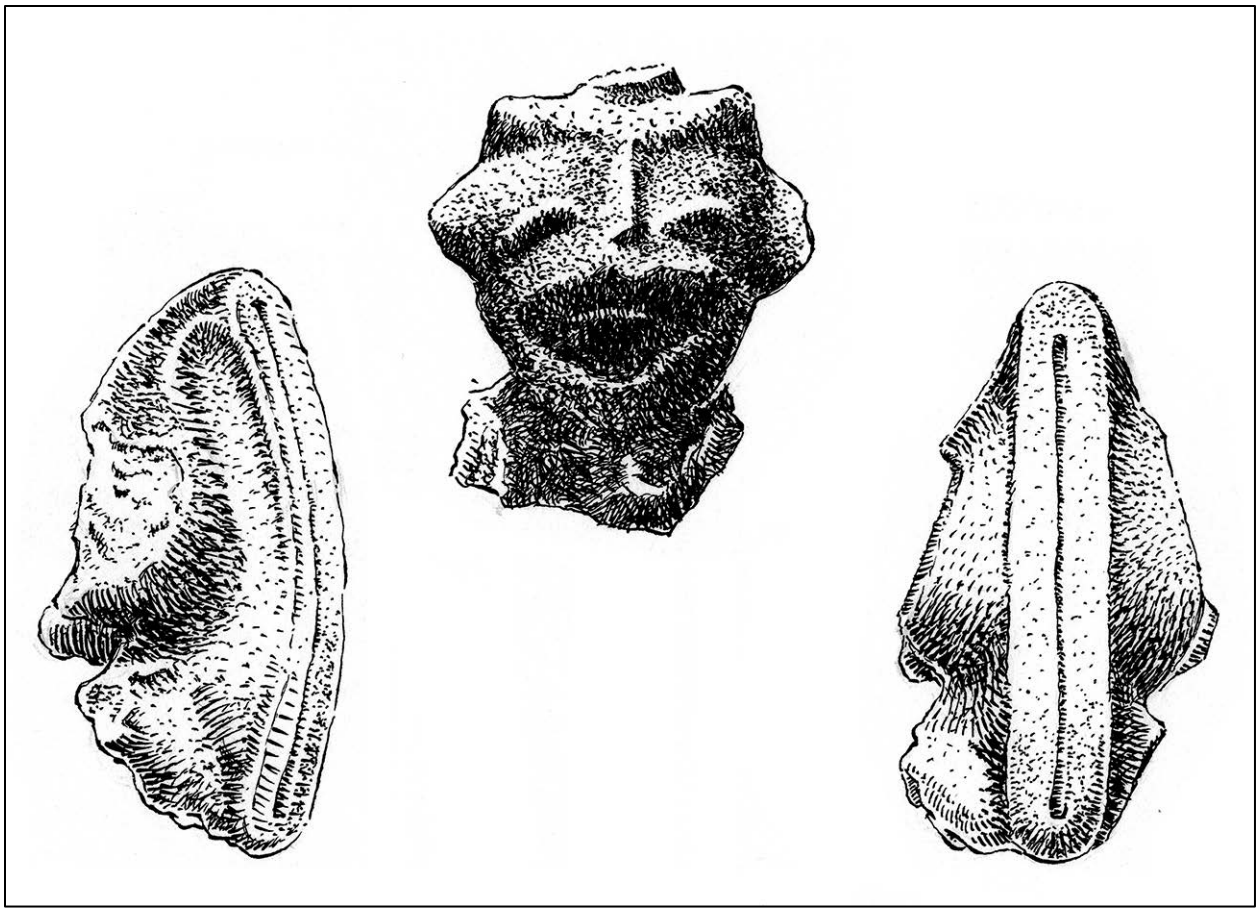

Figure 66. Human effigy fragments.

Figure 67. Animal effigy fragments.

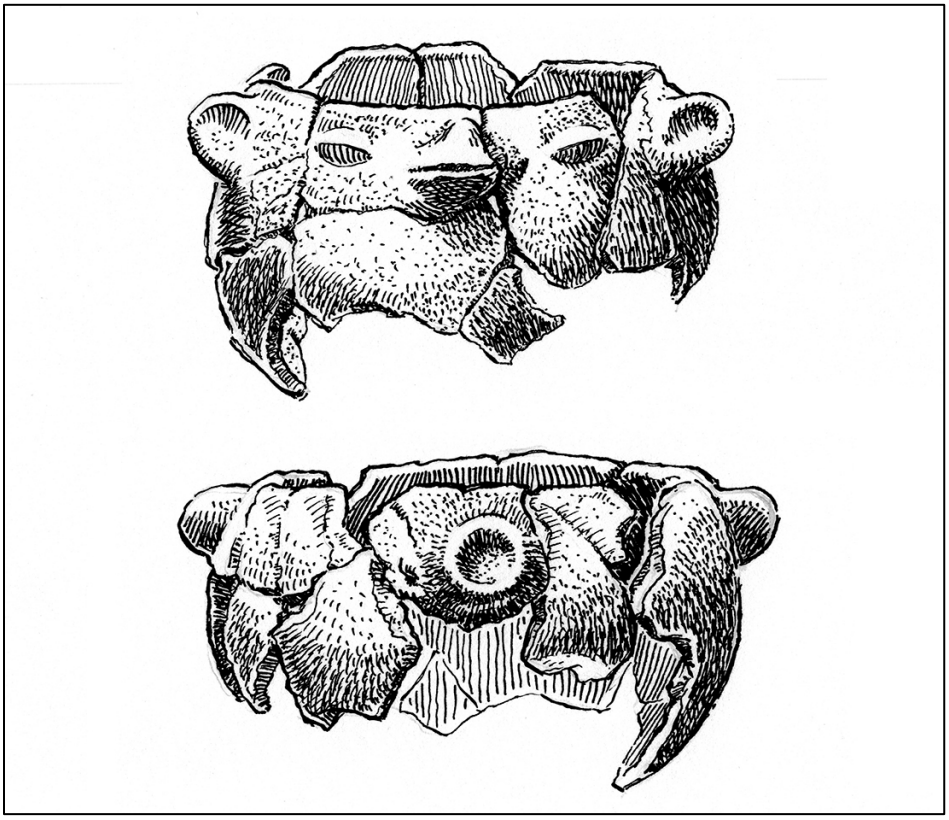

Figure 68. Frog effigy bowl from Burial 80.

Other Ceramic Temper Types

Less than 1% (*n*=63) of the pottery sherds recovered during the 1993–1995 investigations included wares manufactured with tempering agents other than crushed mussel shell. These tempers include micaceous sand, limestone, quartz, and grit. In addition, several sherds appear to have no temper additive. The micaceous sand wares date to the primary Mississippian habitation of Rutherford-Kizer, whereas the other sherds denote occupations prior to the Mississippian period.

Micaceous Sand Tempered Ceramics

Micaceous Sand Tempered, Plain

Sample size: n=1 body.

Paste: This sherd has a very compact paste with fine sand as the temper. The vast majority of temper particles are consistently well under 1.0 mm in size. One large sand grain (nearly 4.0 mm) was present. Tiny particles of mica are also visible, although these may actually be a natural inclusion in the clay matrix.

Surface finish (exterior): The exterior surface is well-finished and lightly polished.

Surface finish (interior): The interior surface is also well-finished, although it does not have the luster that was noted on the exterior surface. The surface is somewhat abrasive to the touch.

Color: Burnt orange is the consistent color of the exterior, core, and interior surfaces.

Form: Shouldered jar is suggested by the body sherd curvature.

Decoration: None, by definition.

Dimensions: This sherd measures 5.0 mm in thickness.

Comments: This specimen was recovered from Test Unit 1, Level 1 (Strip Block B area). The paste of this single sherd is similar to the sand tempered, complicated stamped sherds (most of which were also found in the Strip Block B area). The paste also provides an obvious clue that the vessel from which this particular sherd originated is not the product of a local potter.

Given the probable north Georgia origin of the complicated stamped sherds (see description below), this plain surface sherd is also defined as probably originating from north Georgia. The temper and exterior surface treatment are consistent with the type Lamar Plain (Hally 1970:17).

Micaceous Sand Tempered, Complicated Stamped (Figure 69)

Sample size: n=17 (3 rim, 14 body)

Paste: Very compact paste with fine sand as the tempering agent. The sand grains are generally very small, although some occasionally approach 2.0 mm in size. Minute mica flecks are also visible.

Surface finish (exterior): Appears well smoothed.

Surface finish (interior): Well-smoothed. The sherds are a bit abrasive to the touch (very much like sandpaper).

Color: Exterior, core, and interior colors range from dark orange-brown to brown.

Form: The small size of the sherds makes form assessment somewhat difficult. However, based upon three (separate) incurvate rim sherds with slightly flattened to flattened lips, along with the curvature of several body sherds, these specimens appear to originate from carinated bowls.

Decoration: Complicated stamping. Small sherd size and exposure to the elements have made the well-executed rectilinear and curvilinear designs hard to identify.

Dimensions: The rim sherds measure between 4.2 mm and 8.0 mm in thickness. Body sherds range from 4.4 mm to 7.2 mm.

Comments: As mentioned above, the complicated stamp motifs are not readily identifiable. However, these sherds are out of place in a local assemblage and reflect a non-local ware. David Hally (personal communication 1994) suggested a probable north Georgia origin (Savannah phase?) based on a brief examination of these artifacts at the 1994 SEAC Conference. Hence, these sherds are assigned as Lamar Complicated Stamped (Jennings and Fairbanks 1939) and postulated to represent a minimum of two (and possibly three) non-local vessels.

Figure 69. Micaceous sand temper, complicated stamped.

Limestone Tempered Ceramics

Ceramics with limestone temper have a broad spatial and chronological distribution in the interior south-central United States. Limestone tempering was introduced into the ceramic technology in the Middle Cumberland region approximately 300–200 BC. Limestone continues

in use as a primary tempering agent through terminal Woodland, although little information is currently available on Late Woodland ceramics from the region. While the use of limestone as temper is not unusual in early contexts on Mississippian sites in Middle Tennessee, East Tennessee, and Kentucky, it more commonly occurs as one constituent in mixed temper ceramics (shell and limestone) or in areas with limited mussel shell resources.

The relatively small number and fragmentary nature of the sherds at Rutherford-Kizer precludes any strong conclusions, but this material derives from the Middle Woodland component at the site (Figure 70). Similar simple stamped limestone tempered sherds were recovered from a feature at 40WM154 yielding a calibrated date of AD 590, or 1500 +/- 40 BP (Beta 112417). Features 19 and 56 at the Fort Blount site (40JK125) contained comparable cordmarked and check stamped limestone-tempered wares (Moore 2000). Feature 19 yielded a date of AD 395, or 1680 +/- 70 BP (Beta-81215). Feature 56 dated AD 440, or 1600 +/- 60 BP (Beta-81216).

Limestone Tempered, Cordmarked (Figure 70)

Sample size: n=20 body.

Paste: The paste is somewhat poor to moderately compact with crushed limestone as temper. The limestone particles are blocky and generally range between 1.0 mm and 3.5 mm in size.

Surface finish (exterior): Appears somewhat well smoothed, although really hard to tell due to the exterior decoration. Blocky holes appear due to leached temper.

Surface finish (interior): Generally smoothed, although some sherds displayed some uneven surfaces. Blocky holes from leached temper also contribute to the rough surface texture.

Color: The exterior, core, and interior surfaces display a limited range of brown and black colors.

Form: Unknown for the current sample due to small sherd size and lack of rims.

Decoration: Cordmarking along exterior surface. Many sherds have smoothed over cordmarking, but this may be (at least partially) the result of exposure rather than an intentional decoration technique.

Dimensions: These body sherds range in thickness from 4.2 mm to 8.5 mm.

Comments: The sherds are probably local variants of Candy Creek Cordmarked (Lewis and Kneberg 1946, 1957) and/or Flint River Cordmarked (Heimlich 1952).

Limestone Tempered, Simple Stamped (see Figure 70)

Sample size: n=2 body.

Paste: Both sherds have a somewhat moderate compact paste. The tempering agent is crushed limestone that at times approaches 4.0 mm in size.

Surface finish (exterior): Appears smoothed, although hard to tell with exterior decoration.

Surface finish (interior): Likely smoothed, although both specimens have somewhat rough and uneven interior surfaces from (blocky) leached temper particles.

Color: The exterior, core, and interior surface colors are light brown to brown.

Form: Unknown for this sample due to small sherd size and lack of rims.

Decoration: Simple stamping on exterior surface.

Dimensions: These sherds measure 7.9 mm and 8.1 mm in thickness.

Comments: Again, sherd and sample size precludes any strong statements, but the single stamped sherd is probably referable to Bluff Creek Simple Stamped (Haag 1939), a type established for the Middle Tennessee River valley. This type has been reported as a minor constituent in a limestone tempered Middle Woodland assemblage at the French Lick/Sulphur Dell (40DV5) site (Walling et al. 2000).

Figure 70. Limestone tempered ceramics: simple stamped (left), cordmarked (right).

Quartz Tempered Ceramics

Quartz Tempered, Plain

Sample size: n=2 body.

Paste: Both specimens display a moderate compact paste with coarsely crushed quartz or quartzite as the tempering agent. Temper particles are rounded angular to blocky, and measure up to 3.0 mm in size.

Surface finish (exterior): Both sherds have severely eroded exterior surfaces.

Surface finish (interior): Poorly smoothed. Somewhat uneven surfaces with a very rough texture due to temper particles.

Color: All surfaces (exterior, core, and interior) are gray.

Form: Unknown due to small size of sherds.

Decoration: None, by definition.

Dimensions: These body sherds measure 9.1 mm and 9.3 mm thick.

Comments: This small sample from 40SU15 may represent a local variant of the (Early Woodland) Watts Bar series (Faulkner 1968). The general perception in the archaeological community is that quartz tempered sherds tend to be earlier than those

tempered with limestone. However, Woodland ceramics in the middle Cumberland region are poorly understood, and it is quite possible that these quartz tempered sherds are somewhat contemporaneous with the limestone tempered wares.

Quartz Tempered, Cordmarked (Figure 71)

Sample size: n=11 body.

Paste: These sherds exhibit a somewhat moderate compact paste with crushed quartz or quartzite as the temper. Temper particles tend to be rounded angular to blocky, and measure up to 4.0 mm in size.

Surface finish (exterior): Hard to tell due to exterior decoration.

Surface finish (interior): Poorly smoothed, uneven surface that is very rough to the touch due to the temper particles.

Color: These sherds have a black exterior, core, and interior surface.

Form: Unknown due to small size of sherds.

Decoration: Somewhat fine cordmarking along exterior surface. Possibly smoothed over.

Dimensions: Each of these sherds measure 7.7 mm thick.

Figure 71. Other cordmarked sherds: quartz temper (left) and grit temper (right).

Comments: These specimens were recovered from (pit) Feature 739 during the lot 85 burial removal, and it is obvious that all of these sherds derive from the same vessel. These sherds likely represent a local variant of the (Early Woodland) Watts Bar Cord Marked type (Faulkner 1968; Lewis and Kneberg 1957). As mentioned above, the general perception in the archaeological community is that ceramics with quartz temper are earlier than ceramics with limestone temper. It is also a fact that Woodland ceramics in

the middle Cumberland region are poorly understood, and it is quite possible that these quartz tempered sherds are contemporaneous with the limestone tempered wares.

Grit Tempered Ceramics

Grit Tempered, Plain

Sample size: n=1 body.
Paste: Moderately compact paste with fine granular grit as the temper.
Surface finish (exterior): Poorly smoothed.
Surface finish (interior): Poorly smoothed.
Color: Exterior, core, and interior surface is dark gray.
Form: Unknown due to small size of sherd.
Decoration: None, by definition.
Dimensions: This body sherd measures 9.3 mm thick.
Comments: No attempt has been made to assign this plain surface sherd to a previously defined type. The granular grit presently defined as the temper additive may in fact be part of the natural clay matrix. This sherd is likely a product of the Woodland component.

Grit Tempered, Cordmarked (see Figure 71)

Sample size: n=6 body.
Paste: The paste of these sherds is moderately compact with coarse grit (likely crushed chert) as the primary temper. The temper particles are generally blocky with sharper angles, and measure up to 4.0 mm in size.
Surface finish (exterior): Appears smoothed, although somewhat rough to the touch due to the temper particles.
Surface finish (interior): Smoothed, although a bit rough to the touch due to the temper particles.
Color: Exterior surfaces ranges from orange-tan to tan to brown. Cores are tan to brown. Interior surfaces are black.
Form: Unknown due to small size of sherds and lack of rims.
Decoration: Cordmarking on exterior surface. Appears smoothed-over on some sherds, but this could be due to exposure rather than an intentional technique.
Dimensions: Thickness of these body sherds ranges between 6.8 mm and 11.4 mm.
Comments: These sherds were recovered from Feature 740 during the lot 85 burial removal, and are most likely a product of the Woodland component.

Untempered Ceramics

Sample size: n=4 (2 rims, 2 body).
Comments: Sherds assigned to this category contained no recognizable tempering agent. These small specimens were retrieved from the general surface and Strip Block B fill.

Rim Treatments

Notched Applique Strips (Figure 72)

Sample size: n=18.

Comments: These specimens consist of rim sherds (primarily Bell Plain paste) from standard bowls with notched rim applique strips just below the vessel lip. This decorative technique is representative of Thruston phase (AD 1250–1450) ceramics throughout the middle Cumberland region. There is substantial variety in the size and shape of the notches, an observation made from other site assemblages (Smith and Moore 2012). The number of notched sherds from 40SU15 is relatively small when compared to other study area Mississippian sites.

Notched rim sherds were recovered from a variety of disturbed as well as undisturbed contexts. These locations include the general surface (*n*=3), Test Unit 1, Level 2 (*n*=1), Plow Strip B6 (*n*=1), Plow Strip C2 (*n*=2), Plow Strip E6 (*n*=1), Feature 83 (*n*=1), Feature 101 (*n*=2), Feature 110 (*n*=1), Feature 194 (*n*=3), Feature 359 (*n*=1), and Feature 880 (*n*=2).

Figure 72. Rim treatments: notched applique strips (left and middle), node (right).

Nodes (see Figure 72)

Sample size: n=2.

Comments: An unusual “dimpled” node decoration was noted along the base of the neck of a direct, flat lip, jar rim found in Plow Strip G6. The jar is thin (4.1 mm), and made from a compact Mississippi Plain paste with crushed mussel shell temper up to 3.0 mm in size. The node (14.2 mm in diameter) was formed by pushing outward from the vessel interior, in combination with a wide trail around the sides and bottom of the node. The “dimple” (5.5 mm in diameter) was created by pushing a small stick or reed into the

center of the node. A second specimen from Backhoe Trench K consists of a node fragment (Bell Plain paste?) that appears to have been an applique attached in a rivet-like manner.

Handles

Strap (Figure 73)

Sample size: n=33.

Comments: Strap handles occur on Mississippi Plain (*n*=18), Bell Plain (*n*=9), as well as Matthews Incised (*n*=5) jars. One shell tempered, cordmarked jar (Mississippi Plain paste) also displayed a strap handle. Straps are generally parallel sided, but at times may be slightly wider at the top and bottom. These handles attach to (usually direct) rims at or just below the lip, and also the vessel shoulder. The 40SU15 straps range in width from 23.2 mm up to 49.4 mm, and vary in thickness from 3.8 mm to 7.2 mm.

Figure 73. Strap handles.

Bifurcate Lug (Figure 74)

Sample size: n=29.

Comments: All but one bifurcate lug from the Rutherford-Kizer site originated from a relatively large, direct rim, Mississippi Plain jar. These lugs appear to have been modeled

separately from the vessel and then attached to the rim lip. Handle lengths (measured as the horizontal distance perpendicular to the rim) range between 13.5 mm and 39.5 mm. The handle thickness (measured as the vertical distance parallel to the rim) varies from 8.5 mm to 16.4 mm. As is typical for Middle Cumberland Thruston phase assemblages, multiple handle pairs on single vessels are not apparent in the Rutherford Kizer sample.

The exception to these previous descriptive statements consists of a direct, Bell Plain jar rim (3.8 mm thick) with a very modest, stylized lug handle (5.5 mm long and 3.9 mm thick) obviously formed as part of the lip.

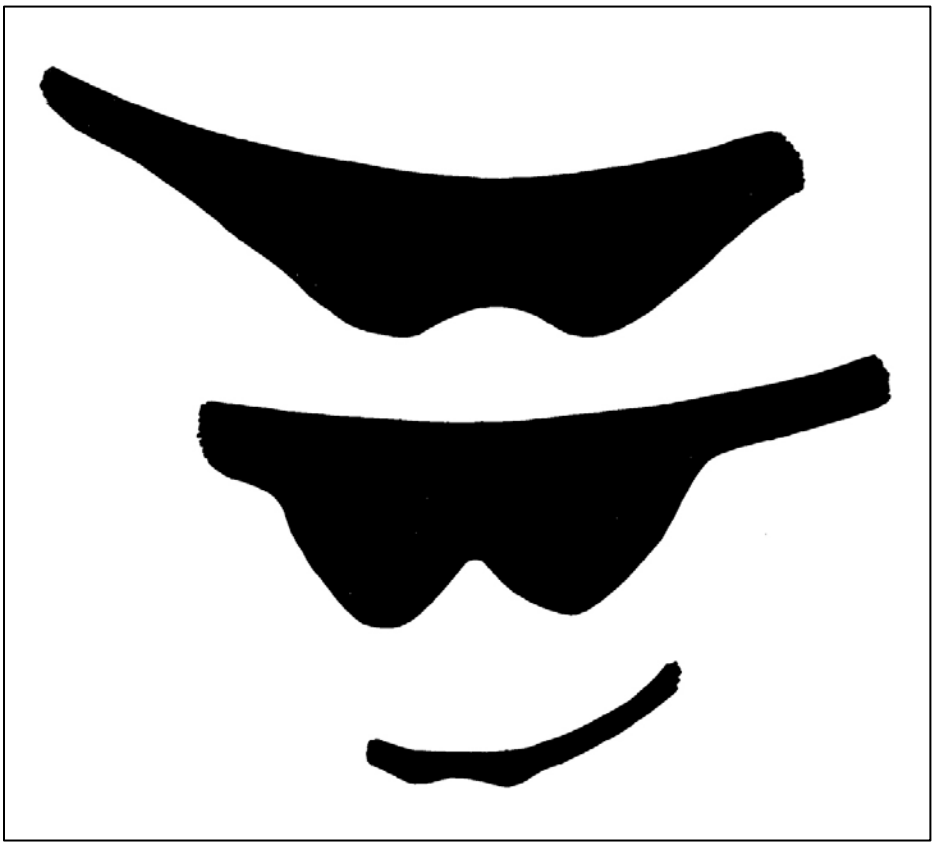

Figure 74. Bifurcate lug handles.

Single Lug

Sample size: n=2.

Comments: Only two single lug (also called tab) handles were identified in the ceramic assemblage. These semi-circular handles (with a paste comparable to Mississippi Plain) were attached to jars with direct rims. One specimen from the general surface of lot 74 was attached to a jar with vertical cordmarking that began just below the lug (see Figure 59).

Unidentified Lug

Sample size: n=11.

Comments: This category contains lug fragments could not be confidently identified as either bifurcate or single. However, considering the composition of the identifiable lugs, most (if not all) are probably portions of bifurcate lug handles.

Mississippian Vessel Forms

The Rutherford-Kizer ceramic assemblage was acquired through a mixture of controlled excavations, semi-systematic salvage excavations, and simple grab-bag surface samples. This mixture of contexts does not confidently allow a detailed quantification of vessels forms. However, considering the apparent short occupation period represented, the assemblage as a whole provides some additional insights into the nature of the Thruston phase (AD 1250–1450) ceramic assemblage. Table 15 presents counts for shell tempered rim sherds large enough to identify vessel form with some degree of accuracy.

Table 15. Mississippian Vessel Forms and Attributes Represented by Rim Sherd Counts.

Vessel Form	Vessel Attribute	Coarse Shell Temper	Fine Shell Temper	Total	Percent
Plain Jar	Direct rim, flattened lip	280	22	302	44.3
	Incurvate rim, flattened lip	6	2	8	1.2
	Direct rim, rolled/folded lip	6	-	6	0.9
	Incurvate rim, rounded lip	6	-	6	0.9
	Excurvate rim	1	1	2	0.3
Incised Jar		45	-	45	6.6
Bowl	Standard	11	54	65	9.5
	Constricted orifice	-	10	10	1.5
	Outslanting wall	4	14	18	2.6
	Notched rim	2	16	18	2.6
Bottle		2	9	11	1.6
	Hooded	2	21	23	3.4
	Negative painted	-	1	1	0.2
Plate		-	15	15	2.2
Pan	Plain	6	-	6	0.9
	Fabric impressed	80	-	80	11.7
	Fabric impressed, giant	3	-	3	0.4
	Unidentified	58	-	58	8.5
Miniature		4	1	5	0.7
Totals		**516**	**166**	**682**	**100.0**

The reader should note that the values presented in Table 15 *do not* represent minimum number of vessel counts, but rather rim sherd counts. While cross-mended rim sherds were counted as a single sherd, the nature of the sample did not lend itself to efforts to reduce other rim sherd counts to minimum number of vessel counts. While this method definitely skews the results towards higher "counts" for vessels with larger orifice diameters (presuming they typically yield larger numbers of rim sherds), the method does provide a relatively simple and expedient quantification for this type of assemblage. Some 682 rim sherds (approximately 75% of the total rim sherds) were assigned to either general or specific vessel forms. An additional cautionary note relates to the inflation of relative counts of highly distinctive vessel forms, including plates, pans, hooded bottles, and some bowl forms. These forms are much more readily identified from small rim sherds than jars, bottles, and some bowl forms.

Based on this gross quantification, a total of 682 shell tempered rims were assigned to a vessel form. The following discussion examines the general shape and associated attributes of diagnostic Thruston phase ceramic forms.

Jars (Figure 75)

Of the 682 rim sherds identified as to vessel form, 369 (54.1%) were identified as jars. As is the case with most Mississippian assemblages, jars display the greatest morphological and stylistic diversity. Table 15 indicates the vast majority of jars are created from relatively coarse shell tempered pastes, with the size of the shell temper fragments generally in direct correlation with the thickness of the vessel walls and overall vessel size.

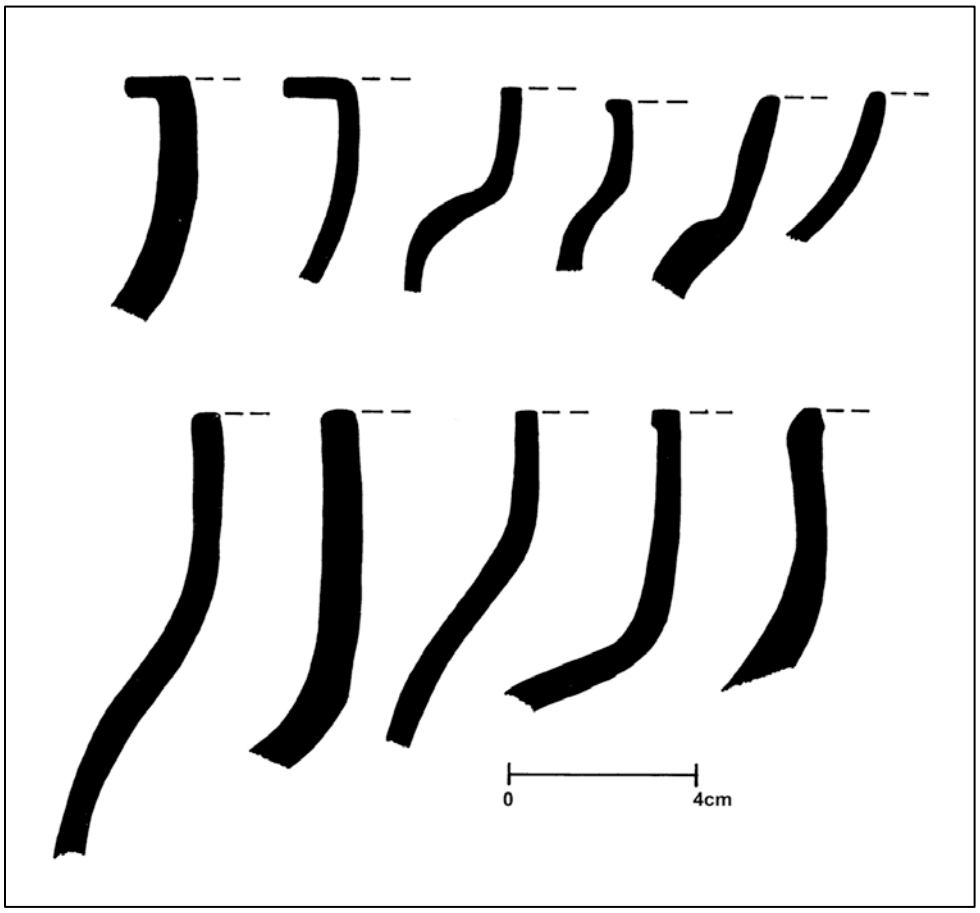

Figure 75. Jar rim profiles.

Rim/Neck attributes: Three rim categories are apparent in the sample, including: a) direct-rim, (b) incurvate-rim, and (c) everted-rim. Direct-rim refers to jar necks/rims that rise vertically (< 5% angle) from the globular or subglobular body, sometimes with a gentle but recognizable break between the body and neck. Incurvate-rim refers to jar necks/rims that curve evenly inward from the rounded shoulder of the vessel to the lip and exhibit a >5% angle. Everted-rims show a sharp break towards the exterior of the vessel body.

Lip attributes: Three basic lip attributes were noted in the sample, including: (a) flattened lip; (b) rolled/folded lip; and (c) rounded lip. The most common and nearly ubiquitous lip attribute was a simple flattened lip. A small number of vessels exhibit a rolled (gently rolled) or folded (sharply turned) lip. A similarly small number of sherds exhibit a rounded lip that was not obviously rolled or folded.

Bowls (Figure 76)

A total of 111 bowl rim sherds (16.3% of identified rim sample) were defined. The basic differentiation between the three identified bowl forms lies in the angle of the wall of the bowl. Additional attributes include modifications to the rim and lip of the vessels, including: (a) nodes, (b) notched-applique strips at or just below the rim; and (c) modifications required for creation of effigy bowls.

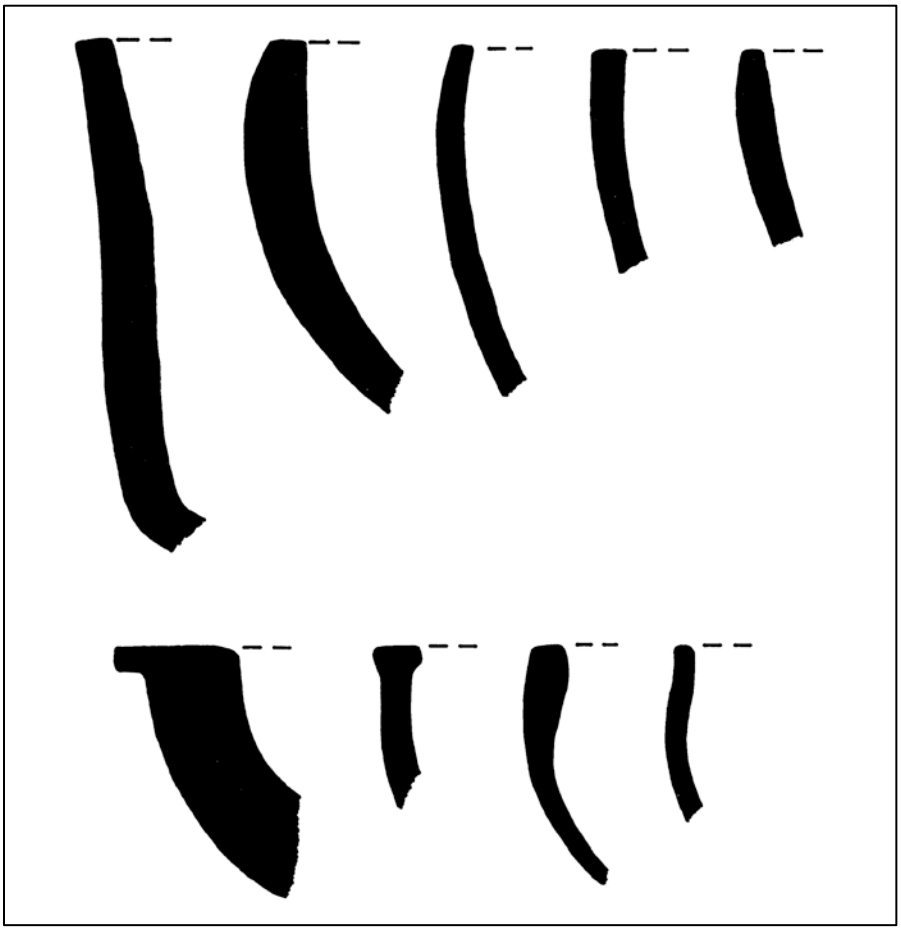

Figure 76. Bowl rim profiles.

The two most common bowl forms (standard and outslanting wall) exhibit one primary shared feature, that the orifice diameters are equal to the maximum diameter of the vessel. The standard bowl follows a gently rounded sub-hemispherical form. Bases range from relatively rounded to slightly flattened to sharply flattened with a strong break with the walls. The outslanting wall bowl is a clearly distinctive form with a flat base clearly breaking with walls that slant outward at roughly 30 degrees or more from the vertical.

Constricted orifice bowls exhibit an orifice diameter substantially smaller than the maximum diameter of the vessel. Vessel walls are generally rounded without carination, but the walls curve inward toward the orifice. These vessels are roughly comparable in form to the incurvate-rim bowls often described as “seed pots” in the American Bottoms.

As shallow vessels viewable “from above,” other bowl attributes generally involve modifications at or just below the lip/rim. For Thruston phase assemblages, most of these attributes are modifications related to the creation of effigy bowls. The addition of notched lips or notched-appliqué rim strips to standard bowls is a universal feature of Thruston phase assemblages. While somewhat speculative, this addition probably represents a variant of the diverse stylistic presentation of sun circles found in many forms in Middle Cumberland (and more broadly Mississippian) iconography. Other modifications to standard bowls include lug tail “handles” associated with bird (duck) and anthropomorphic forms; as well as inward and outward facing rim-rider effigy heads (in this sample, bird and anthropomorphic heads).

Frogs and fish comprise other effigies generally found on restricted-orifice bowls. The addition of nodes to Middle Cumberland bowls is believed to be related to the creation of one of these several different “effigy forms”, where the nodes are singular elements of the overall form.

Bottles

Bottle forms are represented by 5.1% (*n=35*) of the identified rim sherds. As defined by Steponaitis (1983), bottles are vessels with a globular or subglobular body and a well-defined vertical neck “at least a third as high as the body and the diameter at the rim is less than three-fourths of the maximum diameter of the body.” Unfortunately, most of the rim sherds at Rutherford-Kizer were generally too small to confidently identify these characteristics. Hence, the sample does not permit many new insights into the Thruston phase bottle forms. Three basic bottle forms have been identified at Middle Cumberland Mississippian sites: (a) cylindrical neck, (b) carafe neck, and (c) hooded bottles.

Cylindrical necked bottles have a relatively wide cylindrical neck, often a dimpled base, and occasionally a distinct or even carinated shoulder. Two distinct sub-forms are noted on the basis of size: (a) an “average-size” bottle with a relatively high cylindrical neck; and (b) a larger-bodied vessel with a relatively low cylindrical neck. In contrast, the carafe-necked bottle exhibits globular body without sharp shoulders or carination, a rounded or slightly flattened base, and a neck with a narrow, biconcave profile. With few exceptions, the current sample did not permit confident assignation of rim sherds to either of these vessel forms. However, both carafe- and cylindrical-necked vessels are likely represented in the Rutherford-Kizer assemblage.

The more identifiable form from smaller rim sherds is the hooded bottle, which also occurs in two distinct sub-forms: (a) blank-faced hooded bottle; and (b) hooded effigy form. The most distinctive general characteristic of this form is the location of the orifice on the “side” of the neck. In the Middle Cumberland region, blank-faced hooded bottles probably derive originally as gourd-shaped bottles exhibiting a “stem” atop the “head.” Later variants usually

display modeled (and occasionally pierced) features on the side of the head often described as ears, along with numerous top features described as topknots, hair buns, and/or helmets. Hooded effigy bottle forms are more readily interpretable, and include both human and owl effigy forms found at other Middle Cumberland sites. These effigy vessels are found in several forms, but a minimal definition includes a well-defined human or owl face with the orifice on the "back" of the head. Many of these vessels also include "full-figure" presentations of the effigy– i.e. the vessel body is also modified to match the owl or human head.

Two other characteristics of hooded bottles should be noted. As previously described, albeit tentatively, Dowd phase (AD 1050–1250) assemblages generally exhibit blank-face hooded bottles on coarse shell-tempered pastes, while Thruston phase assemblages similar forms are generally found on finer shell-tempered pastes. This pattern is clearly supported by the current assemblage. Secondly, a significant percentage of Thruston-phase hooded bottles appear to have been originally negative-painted but do not retain much evidence except under superb preservation conditions. The fragility of negative painting has often been noted:

> …vases handsomely decorated, when lifted from their beds in the graves, soon lose most of their colors by exposure to the air, unless protected by a coating of shellac, or some other impenetrable substance. (Thruston 1897:134)

Plates (Figure 77)

The Rutherford-Kizer assemblage (*n=15* rims, or 2.2% of the total rim count) provides the first definitive plate vessel forms from the Middle Cumberland region derived from modern excavations. In general, this vessel form is shallow with a flat base and excurvate walls that break into a wide flaring rim. In all instances the rim is well defined and distinct from the vessel body. Nevertheless, two variants can be noted: (a) vessels that display a rounded break between body and rim; and (b) vessels exhibiting a well-defined sharp break between body and rim. In earlier analyses, only the rounded break version has been noted at sites in the Central Basin. This rounded variant was described at Gordontown (Trubitt 1998) as an everted rim bowl (six vessels, three each of fine and coarse paste). However, in light of the current sample, these forms appear to be local variants of broader plate vessel forms found in the central Ohio Valley.

Prior to analysis of the 40SU15 assemblage, Smith and Trubitt (1998) noted the presence of negative painted plates and "flared rim bowls" from Gordontown, Noel Farm, Castalian Springs, and Travellers' Rest. Recently, a similar flared-rim negative-painted "bowl" was reported from the vicinity of the Brick Church Pike Mounds. With the current assemblage in mind, it appears that negative painted plates of both varieties are present in Thruston phase assemblages throughout Middle Tennessee. However, the "true plates" with a sharp break between the body and rim and without negative painting appear to be restricted to assemblages from the Sumner County portion of the eastern Central Basin of Tennessee. Smith and Moore (1999) tentatively suggested that these more eastern settlements might ultimately deserve a separate phase designation. The data at hand provides some additional support for such a suggestion. While some vessels described previously as "flared rim" or "excurvate rim" bowls do match with the current assemblage, no examples of the vessels with sharply excurvate rims have been identified to date in the "heart" of the Nashville region.

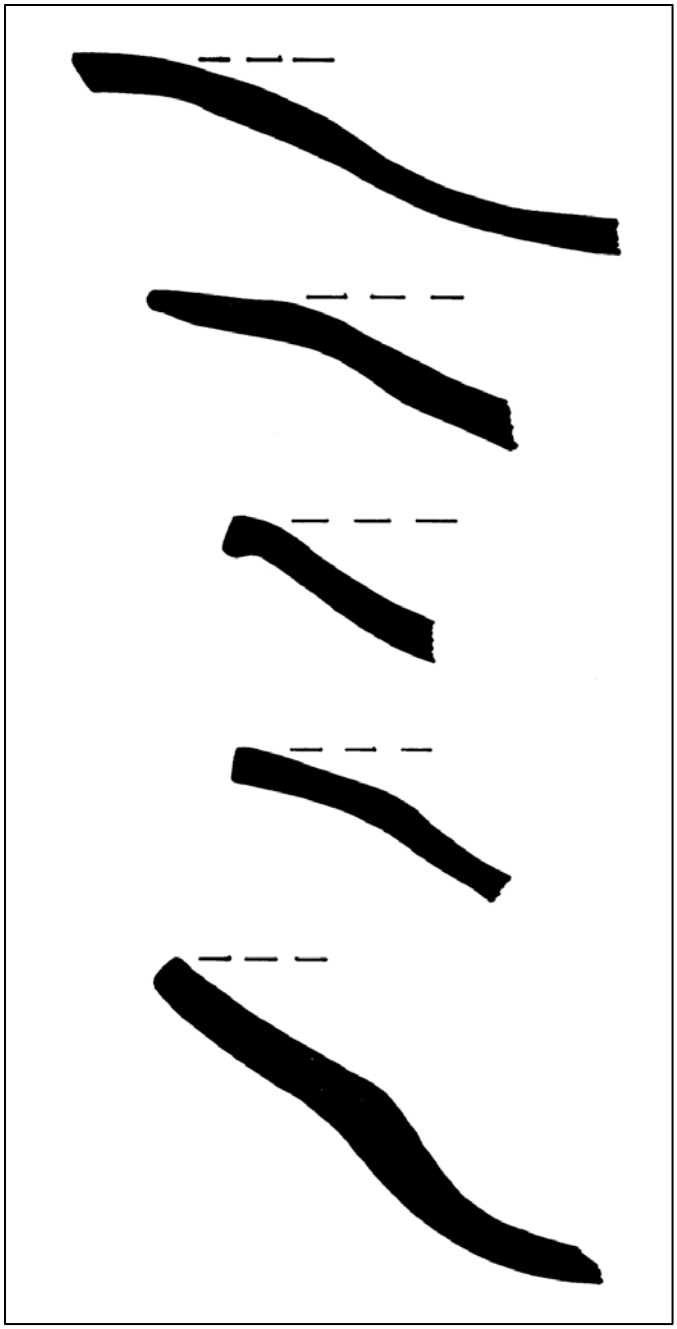

Figure 77. Plate rim profiles.

Pans (Figures 78 and 79)

Pans comprise 21.6% (*n=147*) of the identified rim sherds. Rims are easily identifiable for pan forms, and actual vessel numbers are probably inflated using rim counts. Pan rims are typically thick and excurvate in profile with a flat or rounded, externally thickened lip. The lip is generally created by folding and may also be pinched to form an external ridge. The vessel form is a large, shallow basin with a rounded or flat bottom. Both fabric impressed and plain pans are represented in the sample, with a predominance of fabric impressed pans. The reader is directed to Appendix F for additional information on fabric impressed pans.

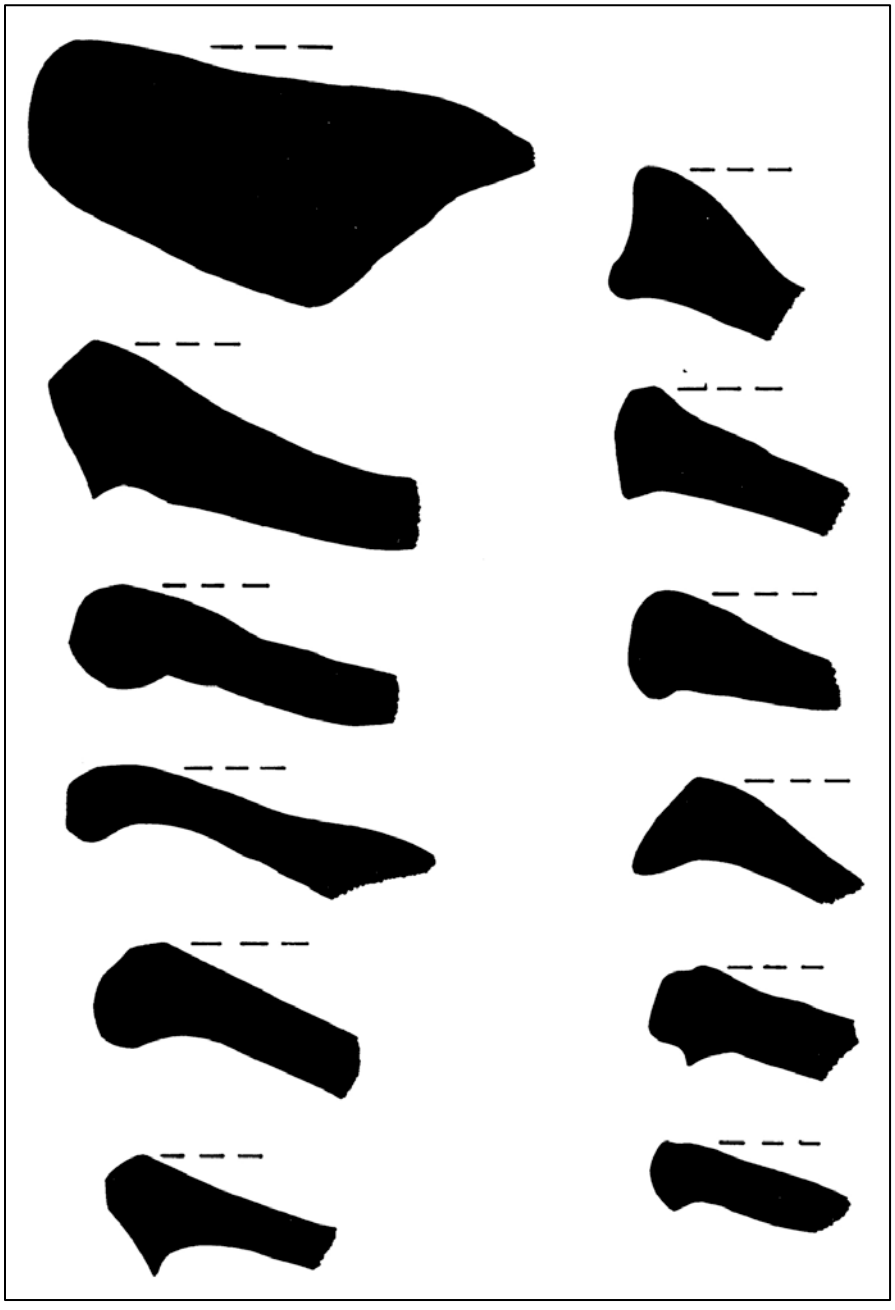

Figure 78. Fabric impressed pan rim profiles.

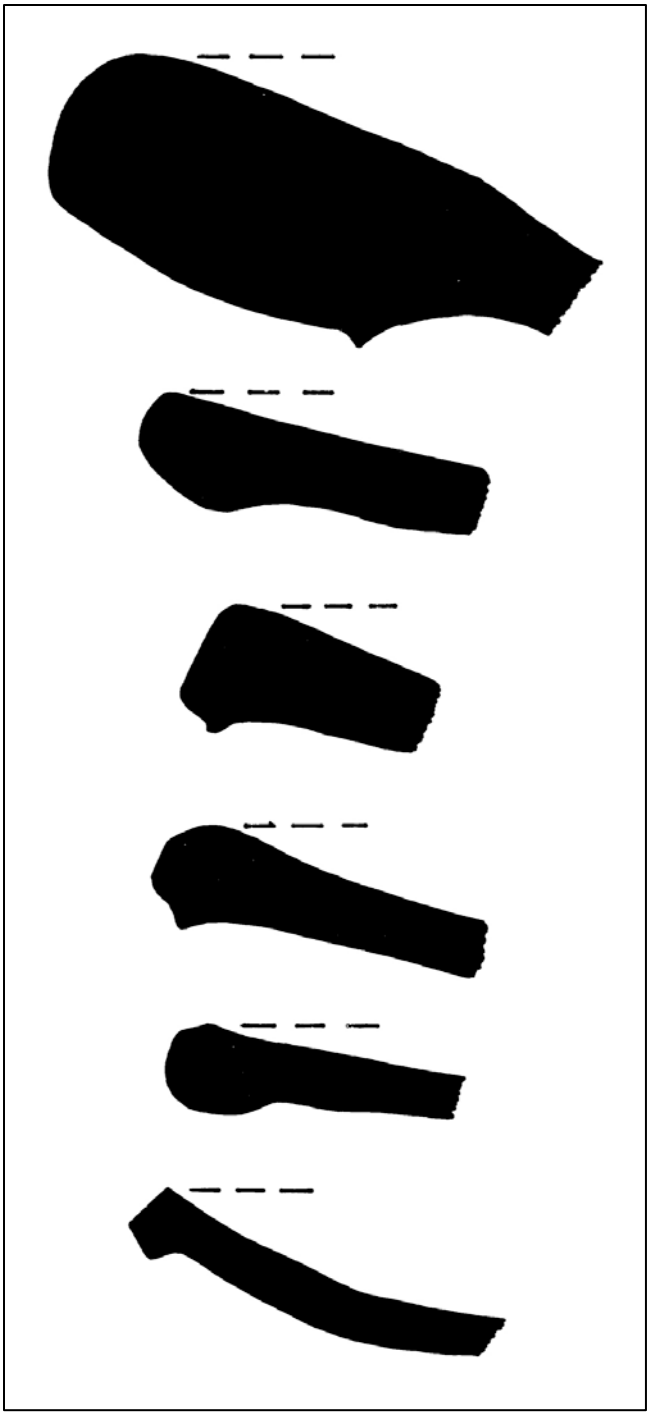

Figure 79. Plain pan rim profiles.

Miniature Vessels/Pinch Pots

Five rim portions were identified as miniature vessels or “pinch pots.” While the majority of these types of vessels are crudely made, one does exhibit fine shell temper and is well finished. Observation of several whole miniature vessels at the Peabody Museum suggests that Mississippian peoples in the Cumberland Valley manufactured finely crafted miniatures of

most vessel forms. While these vessels may have served a variety of functions, it is tempting to attribute some of these to toys manufactured for children.

Other Ceramic Artifacts

The 1993–1995 investigations yielded a total of 61 clay artifacts not classified as a ceramic vessel section or sherd. This section does, however, include numerous (*n*=48) disks made from pottery sherds. Other items assigned to this section include a marble, pipe fragment, earplug, two trowel fragments, two beads, and two pendants. Table 16 presents the number and provenience of each item.

Table 16. Other Ceramic Artifacts from the 1993–1995 Investigations.

Provenience	Disk	Pipe	Marble	Earplug	Trowel	Bead	Pendant	Raw Clay	TOTAL
General Surface	7	-	-	-	2	-	-	-	9
Test Unit 1, L2	1	-	-	-	-	-	-	-	1
Fill, Strip Block B	1	-	1	-	-	-	-	-	2
Fill above F20/36	7	-	-	-	-	-	-	-	7
Plow Strip B1	1	-	-	-	-	-	-	-	1
Plow Strip B4	-	-	-	-	-	-	1	-	1
Plow Strip C2	1	-	-	-	-	-	-	-	1
Plow Strip C3	3	-	-	-	-	-	-	-	3
Plow Strip D3	1	-	-	-	-	-	-	-	1
Plow Strip F6	1	-	-	-	-	-	-	-	1
Plow Strip H4	1	-	-	-	-	-	-	-	1
Backhoe Trench A	1	-	-	-	-	-	-	-	1
Backhoe Trench K	1	-	-	-	-	-	-	-	1
Feature 20	8	-	-	-	-	1	-	1	10
Feature 36	11	-	-	-	-	-	-	-	11
Feature 76	2	-	-	-	-	-	-	-	2
Feature 101	-	-	-	1	-	1	-	-	2
Feature 156	-	-	-	-	-	-	1	-	1
Feature 194	-	-	-	-	-	-	-	1	1
Feature 359	-	-	-	-	-	-	-	2	2
Feature 371	1	-	-	-	-	-	-	-	1
Feature 392	-	1	-	-	-	-	-	-	1
TOTAL	**48**	**1**	**1**	**1**	**2**	**2**	**2**	**4**	**61**

Disks (Table 17; Figure 80)

Sample size: n=48.

Comments: Items assigned to this category comprise shell-tempered pottery sherds that have been modified into round disks. These specimens range from somewhat crude to very well finished. Most of these artifacts (*n*=44) were made from plain surfaced sherds. Disks formed from cordmarked (*n*=2) and fabric impressed (*n*=2) sherds were also recovered. Just over one-half of these disks (*n*=26) were recovered within or around Features 20 and 36. Interpretations of these artifacts' function range from gaming pieces to children's toys to bottle stoppers. However, the most common accepted use of these items has been as some type of gaming or gambling piece.

Table 17. Provenience and Attributes of Recovered Ceramic Disks.

Provenience	Sherd Paste	Exterior Surface Decoration	Diameter (in mm)	Thickness (in mm)
General Surface	moderate compact	cordmarked	40.8	12.6
General Surface	moderate compact	cordmarked	44.9	8.4
General Surface	moderate compact	none	34.5	9.2
General Surface	moderate compact	none	51.7	11.5
General Surface	compact	none	39.9	6.7
General Surface	compact	none	41.3	8.6
General Surface	compact	none	26.9	9.0
Test Unit 1, Level 2	moderate compact	none	59.3	8.4
Fill, Strip Block B	compact	none	50.4	9.7
Fill above Features 20 and 36	moderate compact	none	30.0	10.7
Fill above Features 20 and 36	moderate compact	none	33.6	6.7
Fill above Features 20 and 36	moderate compact	none	35.8	9.5
Fill above Features 20 and 36	moderate compact	none	40.7	8.2
Fill above Features 20 and 36	moderate compact	none	34.4	12.9
Fill above Features 20 and 36	compact	none	34.3	7.9
Fill above Features 20 and 36	compact	none	44.5	9.1
Plow Strip B1	moderate compact	none	35.7	10.6
Plow Strip C2	moderate compact	none	42.9	7.2
Plow Strip C3	moderate compact	none	39.5	9.4
Plow Strip C3	moderate compact	none	40.7	8.2
Plow Strip C3	coarse	fabric impressed	26.9	13.2
Plow Strip D3	compact	none	30.1	5.9
Plow Strip F6	moderate compact	none	41.8	11.9
Plow Strip H4	moderate compact	none	38.3	9.7
Backhoe Trench A	compact	none	35.3	9.1
Backhoe Trench K	moderate compact	none	42.1	10.5
Feature 20	coarse	fabric impressed	26.9	12.1
Feature 20	moderate compact	none	33.3	10.2
Feature 20	moderate compact	none	34.7	9.3
Feature 20	moderate compact	none	37.0	11.8
Feature 20	moderate compact	none	41.4	11.3
Feature 20	moderate compact	none	23.1	12.3
Feature 20	moderate compact	none	28.1	8.1
Feature 20	compact	none	37.8	5.2
Feature 36	moderate compact	none	30.8	9.0
Feature 36	moderate compact	none	28.4	8.9
Feature 36	moderate compact	none	29.6	9.4
Feature 36	moderate compact	none	30.9	11.7
Feature 36	moderate compact	none	32.8	13.1
Feature 36	moderate compact	none	33.8	7.1
Feature 36	moderate compact	none	28.5	9.4
Feature 36	moderate compact	none	27.8	8.6
Feature 36	moderate compact	none	30.2	10.7
Feature 36	compact	none	26.6	5.5
Feature 36	compact	none	31.1	6.2
Feature 76	moderate compact	none	28.6	9.2
Feature 76	moderate compact	none	23.8	5.6
Feature 371	moderate compact	none	52.9	9.5

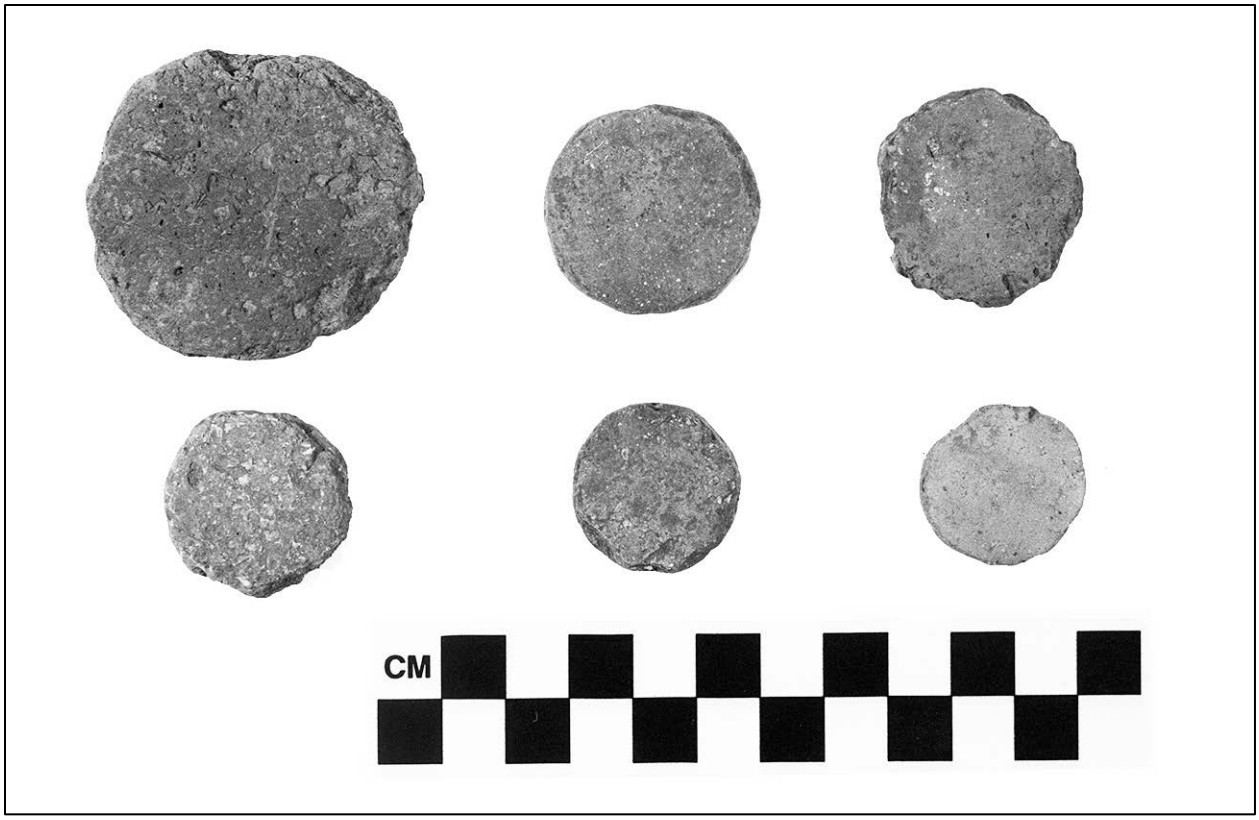

Figure 80. Ceramic disks.

Pipe Fragment

Sample size: n=1.

Comments: One fragment of a shell-tempered (Mississippi Plain-like paste) pipe bowl was retrieved from Feature 392. This roughly circular bowl likely originated from an elbow pipe. In profile, this specimen flares outward to a maximum diameter of 39.5 mm. Very little effort was made to smooth the exterior surface or flattened bowl lip. The bowl walls are somewhat irregular, measuring between 6.6 mm and 10.0 mm thick.

Marble

Sample size: n=1.

Comments: The fill of Strip Block B yielded one small, solid sphere measuring 25.4 mm in diameter. Made of untempered clay, this (for lack of a better term) marble displays a well-smoothed (but not polished) exterior surface.

Earplug Fragment

Sample size: n=1.

Comments: Among the artifacts recovered from Feature 101 is an hourglass-shaped earplug fragment. This specimen of shell-tempered clay measures 17.1 mm long with a maximum diameter of 17.5 mm. The interior groove diameter measures 11.9 mm. The flattened ends of this earplug present a rather unusual appearance when compared to the rounded ends of most other earplugs from the study area. Also present is a centrally

drilled hole that travels the length of the earplug. This hole has a maximum diameter of 4.8 mm.

Trowel Fragments

Sample size: n=2.

Comments: Both specimens were recovered from the general surface, and comprise fragments of mushroom-shaped, pottery trowels with perpendicular handles. Each of these items was constructed from a poorly compacted clay paste with coarse shell temper. One partial base fragment was complete enough to allow a diameter measurement of 99.7 mm.

Beads

Sample size: n=2.

Comments: One bead (recovered from Feature 101) is a somewhat irregular sphere of shell-tempered clay (Mississippi Plain-like paste) measuring 19.0 mm in diameter. The exterior surface of this bead is rather poorly smoothed. Also visible are two (perpendicular) holes ranging from 1.5 mm to 3.0 mm in diameter. These holes appear to have been formed by pushing a small twig or reed through the wet clay. The second specimen (from Feature 20) is much smaller and exhibits a more classic bead look. No tempering agent is visible in this bead, which has a circular plan-view and an oval profile. This artifact measures 8.6 mm in diameter and 6.3 mm thick.

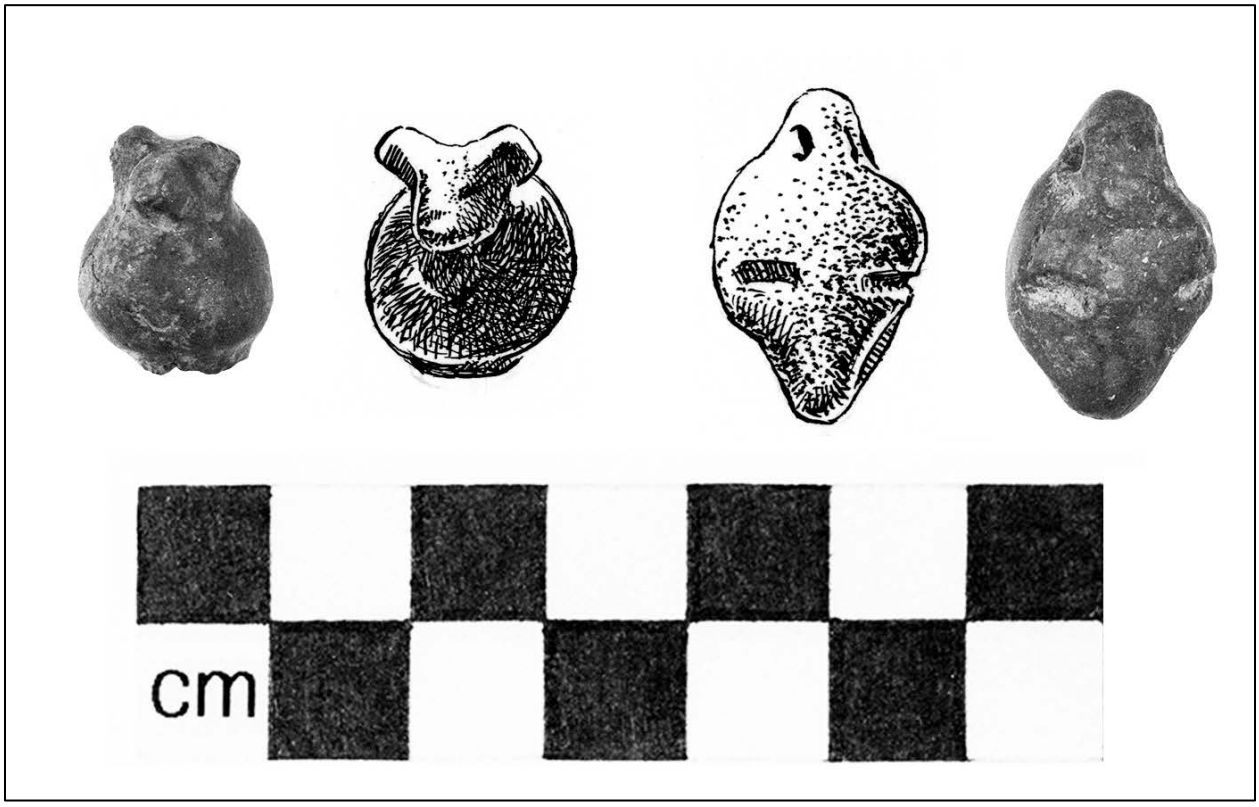

Figure 81. Pendants.

Pendants (Figure 81)

Sample size: n=2.

Comments: A specimen from Feature 156 (a posthole recorded at the base of Feature 36) consists of a somewhat tear-shaped pendant with an abstract "face-shape". The paste is tempered with a limited amount of finely crushed mussel shell. The exterior surface is smoothed and lightly polished. The "face" area is flattened and displays two rectangular punctations or incisions for eyes. A loop for suspension is at the top of the "face", and may also serve as a top knot representation. This particular pendant measures 22.5 mm long, and 15.3 mm in maximum width (across the face).

The second pendant (from Plow Strip B4) represents an animal effigy (most likely owl). No temper is visible along the exterior surface of this smoothed and lightly polished artifact. The effigy consists of a globular body with a molded head on one side and a suspension loop on the opposite side (most of the suspension loop has broken off, however). The head exhibits two prominent ears along with a projecting beak (nose?). Small portions of one ear and the beak/nose are missing. The length of this pendant (excluding the missing suspension loop) is 15.6 mm. Maximum diameter of the globular body is 13.3 mm. The molded head measures a maximum width of 9.2 mm (along the ears). The distance from the back of the ears to the beak/nose is 8.9 mm.

Raw Clay

Sample size: n=4.

Comments: Four "clumps" of clay with no temper were recovered from three features (20, 194, and 359). These specimens appear to reflect discarded raw clay perhaps originally intended for use in ceramic production.

XI. OTHER ARTIFACTS

Michael C. Moore

The first portion of this section presents the additional artifact categories of daub, shell, and minerals recovered during the 1993–1995 investigations. Each classification includes the number of specimens and a brief description.

The second part of this section comprises a brief discussion of artifacts that are reported to have originated from the Rutherford Kizer site area, but are currently held in private collections (excluding the Peabody Museum). A minimal description has been provided for each of these artifacts. Collection sources have been kept confidential except for those already in the public domain.

Artifacts from the 1993–1995 Investigations

Daub (Table 18)

Most specimens assigned to this category comprise fragments of burned clay with the impressions of plant remains. Daub derives from clay that was used as a plaster on residential structure walls or other site architecture. Split cane is the primary material impressed on the clay, with small branches, leaves, and grasses also visible. Daub was observed across much of the site area, but seldom collected except during the course of feature excavation. Samples of variable size were frequently present within habitation feature fill and midden levels across the site area. A substantial amount of daub rubble was detected within and immediately adjacent to the palisade trench bastions. Table 18 lists the provenience and weight of daub retained from the site investigations.

Shell (Tables 19 and 20)

A review of the admittedly sparse shell assemblage from Rutherford-Kizer yielded ten modified specimens, including nine freshwater mussel bivalves or bivalve fragments, and one marine (probably whelk) shell section. Five of the bivalve specimens had a single notch along the shell edge opposite the teeth. These notches varied considerably in depth, from several centimeters up to nearly the entire length of the shell. Suggestions for artifact function have ranged from use as spokeshaves to net sinkers. Another notched specimen was in the sample, but this artifact displayed at least three shallow notches adjacent to the bivalve teeth. This item strongly resembles a scraping tool, as the notches occur along the thickest (more substantial) shell edge adjacent to the teeth.

Two pieces of mother-of-pearl were included in the modified sample. One thin artifact had been cut into a somewhat square shape (one end was fractured). The second item was thicker and rather triangular in shape. The edges were not worked, but one small, oblong hole was present in the center, and a shallow notch was visible on the edge.

Table 18. Provenience and Weight of Daub from the 1993–1995 Investigations.

Provenience	Weight (g)
General Surface	98.0
Test Unit 1, S15 W5, Level 1	9.7
Test Unit 1, S15 W5, Level 2	117.5
Test Unit 2, Level 1 (Backhoe Trench A)	24.1
Test Unit 3, Level 1	50.3
Backhoe Trench K	581.0
Strip Block B, General Fill	2280.5
Strip Block B, Feature 14	32.0
Strip Block B, Feature 20	1140.0
Strip Block B, Feature 30	17.8
Strip Block B, Feature 36	1004.0
Strip Block B, Feature 50	203.5
Strip Block B, Feature 51	49.0
Strip Block B, Feature 57	144.0
Strip Block B, Feature 66	11.5
Strip Block B, Feature 88	1.7
Strip Block B, Feature 90	16.2
Strip Block B, Feature 91	20.5
Strip Block B, Feature 101	6235.5
Strip Block B, Feature 110	34.0
Strip Block B, Feature 131	207.0
Strip Block B, Feature 152	14.5
Feature 371	26.0
Feature 587	64.0
Feature 694	13.0
Feature 735	47.8
Feature 832	7.3
Feature 863	34.0
TOTAL	**12,484.4**

Table 19. Inventory of Modified Shell from the 1993–1995 Investigations.

Provenience	Weight (g)	Artifact
Fill, SB-A	32.8	Nearly complete bivalve shell with one deep, narrow notch along the shell edge (opposite the teeth).
Fill, SB-A	32.4	Nearly complete bivalve shell with roughly ¼ of the shell missing. Appears to have been intentionally cut, as edge is very straight.
Fill, SB-B	11.8	Nearly complete but worn bivalve shell with somewhat shallow notch along shell edge (opposite the teeth).
Plow Strip D4	3.4	Bivalve shell fragment with one deep, narrow notch along the shell edge (opposite the teeth).
Plow Strip E5	16.6	Bivalve fragment with one very deep, V-shaped notch along the shell edge (opposite the teeth).
Plow Strip F5	1.3	Somewhat squarish, thin fragment of mother-of-pearl. One edge of specimen fractured, but undamaged edge has been cut with a prepared, rather rounded finish.
Plow Strip F6	5.6	Bivalve fragment with one shallow notch along the shell edge (opposite the teeth).
Feature 101	6.9	Bivalve shell fragment with at least three, possibly four, shallow notches along the thickest shell edge (adjacent to the teeth).
Feature 101	2.1	Somewhat triangular, rather thick piece of mother-of-pearl. Oblong hole present in the specimen center, also has a small, shallow notch along the edge.
Feature 101	15.9	Somewhat rectangular piece of marine (whelk?) shell. This specimen possibly a blank ready to be worked, as all edges (except for one damaged corner) have been cut.

Table 20. Inventory of Unmodified Shell from the 1993–1995 Investigations.

Provenience	Weight (g)	Artifacts
General Surface	74.5	bivalves
SB-A, General Fill	47.3	bivalves and bivalve fragments; gastropods
SB-B, General Fill	465.0	bivalves and bivalve fragments, gastropods
Test Unit 1, Lv 1	93.5	bivalve fragments; gastropods
Test Unit 1, Lv 2	111.7	bivalve fragments; gastropods
Plow Strip A2	9.0	bivalve fragments; gastropods
Plow Strip A4	17.5	bivalve fragments; gastropods
Plow Strip A5	15.5	bivalve fragments
Plow Strip B1	17.8	bivalve fragments; gastropods
Plow Strip B2	3.2	bivalve fragments; gastropods
Plow Strip B3	4.0	gastropods
Plow Strip B4	8.5	bivalve fragments; gastropods
Plow Strip B5	13.9	gastropods
Plow Strip B6	10.1	bivalve fragments; gastropods
Plow Strip C3	25.5	bivalve fragments; gastropods
Plow Strip C4	8.4	bivalve fragments; gastropods
Plow Strip C5	14.1	bivalve fragments; gastropods
Plow Strip C6	7.4	bivalve fragments; gastropods
Plow Strip C7	22.1	bivalve fragments; gastropods
Plow Strip D4	36.1	bivalve fragments; gastropods
Plow Strip D5	7.0	bivalve fragments; gastropods
Plow Strip D6	0.7	gastropods
Plow Strip D7	11.7	bivalve fragments; gastropods
Plow Strip E3	0.7	gastropods
Plow Strip E4	32.6	bivalve fragments
Plow Strip E5	45.4	bivalve fragments; gastropods
Plow Strip E7	9.5	gastropods
Plow Strip E8	2.0	gastropods
Plow Strip F4	5.8	gastropods
Plow Strip F6	17.5	bivalve fragments; gastropods
Plow Strip F7	45.9	bivalve fragments; gastropods
Plow Strip F8	8.7	bivalve fragments; gastropods
Plow Strip G1	0.3	gastropod
Plow Strip G2	60.3	bivalve fragments; gastropods
Plow Strip G3	35.6	bivalve fragments; gastropods
Plow Strip G4	9.1	bivalve fragments; gastropods
Plow Strip G6	6.7	bivalve fragments
Plow Strip G7	7.2	bivalve fragment
Plow Strip H4	36.6	bivalve fragments; gastropods
Plow Strip H5	4.4	gastropods
Plow Strip I5	4.0	bivalve fragments
Feature 3	11.8	bivalve fragments; gastropods
Feature 12	12.8	bivalve fragments; gastropods
Feature 13	8.0	bivalve fragments; gastropods
Feature 14	159.5	bivalve fragments; gastropods
Feature 15	192.6	bivalves and bivalve fragments; gastropods
Feature 16	65.0	bivalve fragments; gastropods
Feature 17	21.0	bivalve fragments; gastropods
Feature 20	230.1	bivalve fragments; gastropods
Feature 21	25.8	bivalve fragments; gastropods
Feature 36	594.7	bivalve fragments; gastropods
Feature 37	6.0	bivalve
Feature 45	3.3	bivalve fragment
Feature 57	0.4	gastropods
Feature 61	0.2	gastropods
Feature 62	3.8	bivalve fragment
Feature 69	7.0	bivalve fragments; gastropods

Table 20. Inventory of Unmodified Shell from the 1993–1995 Investigations, 40SU15. (continued)

Provenience	Weight (g)	Artifacts
Feature 84	6.8	bivalve
Feature 88	3.1	gastropods
Feature 93	15.7	bivalve fragment
Feature 96	14.2	bivalve fragments; gastropods
Feature 101	1272.5	bivalves and bivalve fragments; gastropods
Feature 108	0.6	gastropods
Feature 112	1.1	gastropods
Feature 114	0.2	gastropods
Feature 118	9.5	bivalve fragments; gastropods
Feature 119	12.0	bivalve fragments; gastropods
Feature 120	3.6	bivalve fragments; gastropods
Feature 124	34.1	bivalve fragments; gastropods
Feature 128	3.0	gastropods
Feature 136	13.3	bivalve and bivalve fragment
Feature 141	0.3	bivalve fragments; gastropods
Feature 156	3.9	bivalve fragments; gastropods
Feature 360	10.0	bivalve fragments
Feature 361	12.3	bivalves
Feature 392	5.7	bivalve fragment
Feature 738	0.4	gastropods
Feature 880	452.6	bivalves and bivalve fragments; gastropods

One cut section of marine (probably whelk) shell was recovered from Feature 101. This thin, somewhat rectangular artifact had one damaged corner and may have been a blank for a small gorget or pendant. This specimen measured 52.5 mm long, 43.1 mm in maximum width, and 4.9 mm thick.

The unmodified sample contained freshwater mussel bivalves as well as gastropod remains. No formal species analysis of these specimens was conducted, but an inventory of the unmodified assemblage has been presented for the reader's information (see Table 30).

Mica

Mica represents a non-local mineral primarily found in the mountainous regions of western North Carolina. East Tennessee did have one commercial mine that briefly operated from 1956–1961 in Greene County (Floyd 1965:87–88). Prehistoric people obtained this platy and lustrous resource for use as mirrors as well as artistic raw material. Several non-local sherds with mica flecks were present within the site ceramic assemblage. However, these particles were likely part of the natural clay matrix rather than an intentional temper additive. Mica has been reported from several Mississippian sites within the middle Tennessee area, including Gordontown (40DV6), DeGraffenreid (40WM4), and Sellars (40Wi1).

One of the most intriguing stories to surface about Rutherford-Kizer was the 1960s recovery of a stack of mica sheets from the site surface shortly after the area had been plowed. The collector that picked up this mica is reported to have given away pieces of this material to friends. The authors have not been able to find anyone that witnessed this event, or was given a piece of mica. Also, the specific area of the site where this material was obtained remains

unknown. As is often the case with such reports, the collector in question is deceased and cannot be interviewed (at least in this world) about the find.

Fortunately, the 1993 test excavation confirmed that mica does indeed exist at the site. Three fragments of mica were retrieved from the large refuse-filled pits in Strip Block B. Feature 101 yielded the largest specimen, a somewhat rectangular fragment that measured 43.9 mm long by 34.1 mm wide. A second fragment (from Feature 20) was much smaller, measuring roughly 15 mm on each side. The smallest fragment was recovered from Feature 36 and measured a scant 7.1 mm by 3.1 mm.

Graphite

One small lump of graphite weighing 1.9 grams was recovered from the fill of Feature 101 in Strip Block B. This gray specimen displayed one heavily ground surface with a polished sheen, and was likely used as a base material for paint. Graphite represents a non-local, carbon resource that derives from the mountainous region of extreme east Tennessee and west North Carolina (Michael Hoyal, personal communication, 2000).

Hematite

Two small, irregular-shaped fragments of hematite were retrieved from the site area. No evidence of smoothing or grinding was visible along the exterior surface of either specimen. One fragment retrieved from the fill of Feature 20 weighed 9.9 grams and exhibited a reddish-brown and dark gray color. The second sample was recovered from the surface (Plow Strip C1) and weighed 5.9 grams. This particular specimen was dark gray in color. The closest source of this non-local iron-ore would be the eastern edge of the Cumberland Plateau at least 160 kilometers east of the site area (Michael Hoyal, personal communication, 2000).

Slate

Slate derives from the Cumberland Plateau as well as Ridge and Valley regions east of the study area (Michael Hoyal, personal communication, 2000). One small tabular fragment weighing 6.4 grams was picked up during the controlled surface collection (Plow Strip H9). This layered specimen displays a dark gray cast and is highly reflective to light.

Artifacts in Other Collections

Another 29 artifacts, currently in private or other collections, are reported to have come from the Rutherford-Kizer site. Although there is no specific reason to doubt the origin of these items, there is also no way to independently validate their discovery. As such, this particular assemblage has been kept separate from the 1993–1995 investigation artifact totals and the Peabody Museum collection.

Many of these specimens are known only through slides of museum pieces or book photographs. Several sources use the terms “Saundersville site” or “village near Saundersville”

to refer to Rutherford-Kizer. Each individual artifact has been minimally described based upon the amount of information available to the editors.

Ceramic Artifacts

Jars (n=4)

Two shell-tempered, plain surface jars with strap handles are on display in the Sumner County Museum. A local collector donated these specimens, reported to be from 40SU15, to the museum. One Matthews Incised jar (*variety Matthews*) is also present in the museum. This shell-tempered specimen displays strap handles and a single incised line.

A fourth jar reported from 40SU15 is a miniature fish effigy (Durham 1969:Figure 4). Unlike most fish effigy bowls from the study area, the top of this shell-tempered specimen exhibits a small opening like an olla. The figure caption states this particular artifact came from a child's grave.

Bottles (n=6)

Four of the six bottles reported to come from 40SU15 comprise hooded, human effigy bottles. All four vessels have globular bodies and a topknot. Ears (possibly hair) are represented on at least two vessels. Whether or not these four vessels are blank-face cannot be determined from the available photographs. One vessel is Matthews Incised, *variety Matthews* with a single incised line (Durham 1969:Figure 5). A second vessel is lobed in a manner that emulates the Matthews Incised look. The other two vessels are plain surface with no lobes (Durham 1969:Figure 5). Several of these specimens are in the Sumner County Museum.

A fifth vessel is also a hooded, human effigy bottle with shell temper. However, the represented individual is kneeling with the arms bent at a 90-degree angle at the lap. This vessel, which appears to have some remnants of negative painting, is reported to be in a private collection (Durham 1969:Figure 5).

One cylindrical neck bottle with crushed mussel shell temper designated as originating from the Rutherford-Kizer site in in the Sumner County Museum.

Bowls (n=4)

One specimen represents a stylized (yet unidentified) bird effigy bowl. The rim-rider head of this shell-tempered vessel faces inward. A small lug tail occurs opposite the head. A second shell-tempered bowl in the Sumner County Museum and reported to come from 40SU15 is a classic duck effigy bowl.

The third bowl does not comprise an effigy vessel, but rather an outward slanting wall bowl with a flat base. This shell-tempered bowl is part of a private collection (Durham 1969:Figure 5). Finally, a miniature bowl with shell-temper is reported to come from a child's grave at the Rutherford-Kizer site and is in the collection of a local relic hunter (Durham 1969:Figure 4).

Figurine (n=1)

One small, shell-tempered clay figurine is on display at the Sumner County Museum, and is reported to come from a child's grave at the Rutherford-Kizer site (Durham 1969:Figure 4). This particular image is kneeling.

Ceramic Ring (n=1)

This ceramic artifact (earring?) is part of the Gates P. Thruston collection acquired by the Tennessee State Museum from Vanderbilt University (Cox 1985). The written artifact description indicates this item (catalog number 550) originated from either the Rutherford-Kizer (Saundersville) site, or the Noel farm (Cox 1985:101). This unusual ring of shell-tempered clay displays two suspension holes, and measures 3.8 cm in diameter and 1.3 cm thick (Cox 1985:100–101).

Lithic Artifacts

Mace (n=1)

This unique symbol of authority is part of the Gates P. Thruston collection acquired by the Tennessee State Museum from Vanderbilt University (Cox 1985). Thruston did not dig up the mace himself, but acquired it from a W. D. Buchanan of Nashville, Tennessee. Made of Dover chert, this particular artifact measures 33.7 cm long, 10.5 cm wide, and 1.9 cm wide. The editors note that this mace is not reported to have come from the Rutherford-Kizer site proper, but rather the Talley farm that was immediately adjacent to the Rutherford-Kizer (or Saundersville) site. The extremely close proximity of the find area to 40SU15 necessitated that this artifact be mentioned.

As a side note, there is some confusion regarding the reference to this artifact. The museum catalog number used in the written artifact description is No. 319 (Cox 1985:76). However, a color plate identified as the Talley farm mace uses a different catalog number (No. 318) in the caption (Cox 1985:Plate 4). Both No. 318 and No. 319 are maces according to the written artifact descriptions (Cox 1985:76). A comparison of the two mace descriptions indicates that a photograph of the No. 318 mace (from southern Kentucky) was mistakenly inserted and described as the Talley farm mace (No. 319).

Ovate Knives (n=2)

One specimen, reported as found while digging in "…the Mound Builders' fortified village near Saundersville…" is in the collection of a local relic hunter (Durham 1969:Figure 3). This artifact appears to be made of Dover chert. No measurements are available.

A second ovate knife is currently in the Sumner County Museum. This artifact is made of an unidentified, seemingly fine-grained chert that has a light tan color.

Large Bifaces (n=2)

Two large bifaces of probable Ft. Payne chert appear in the Sumner County Museum as coming from Rutherford-Kizer. These items are very similar to the two large bifaces designated as Feature 742 during the 1995 (lot 85) burial removal.

Discoidal (n=1)

A bi-concave discoidal (chunkey stone) of limestone was reportedly discovered at 40SU15 about 30 years ago. The context of this heavily ground artifact is currently unknown. This item measures roughly 10 cm in diameter, but the thickness is unknown. This artifact is in a private collection.

Beads/Spindle Whorls (n=3)

These three heavily ground and polished artifacts are small, somewhat discoidal-like objects with drilled holes through the center. Two of these items appear to be made of limestone, whereas the third specimen is made of an unidentified dark material.

Shell Artifacts

Marine Shell Gorget (n=1)

One marine shell gorget depicting two men ("dancing") was "…discovered while making excavations in the Mound Builders' fortified village near Saundersville" (Durham 1969:Figure 3). This fenestrated specimen (Cartersville style) is reported to be in the collection of a local relic hunter. Two suspension holes are drilled at the top of the gorget. The interesting fact regarding this specimen is that no other gorgets of this style have been recovered from the site, or the Middle Cumberland area for that matter. However, the clear connection of this gorget with Etowah might tie in nicely with the non-local (north Georgia) sand-tempered ceramics recovered during the 1993–1995 work.

Bone Artifacts

Copper-Coated Bear Canines (n=2)

Two (probable) bear canines coated with copper were reportedly discovered at Rutherford-Kizer over 30 years ago. It is not known at this time if the canines were actually covered with a thin copper sheet, or if a separate copper artifact merely stained these specimens. Each canine displays a drilled hole near the apex of the root. These specimens remain in a private collection.

Fishhook (n=1)

The Sumner County Museum has one complete bone fishhook on display that is reported to come from the Rutherford-Kizer site.

XII. CULTURAL MATERIAL FROM THE 1878 CURTISS EXCAVATION

Michael C. Moore and Kevin E. Smith

This section is dedicated to a summary of the site information and cultural material recovered by Edwin Curtiss during his December 1878 exploration of the Rutherford-Kizer site (see Appendix H). The intent of this presentation is three-fold: (1) to summarize the burial data provided in the Curtiss notes; (2) to familiarize the reader with the 40SU15 inventory of human skeletal and artifactual remains held by the Peabody Museum; and (3) to establish a baseline collection of cultural material to compare with the artifacts recovered over 100 years later.

Human Skeletal Remains

Curtiss dug into 108 human burials during an approximate ten-day period in December 1878. A summary of the burial information provided in his field notes (see Appendix H) is presented in Table 21. This summary includes the number of individuals, grave length, grave width, grave depth, direction of head, type of burial floor, associated grave items, and other miscellaneous comments. As seen in Table 21, Curtiss was not consistent with his grave descriptions. He generally did not write about a burial that failed to yield something that he considered worthwhile.

A timely stroke of luck for the editors was the completion by the Peabody Museum of their NAGPRA (Native American Graves Protection and Repatriation Act) inventory for Tennessee. Included within this inventory was the human skeletal material removed by Curtiss from the Rutherford-Kizer site (Peabody Museum of Archaeology and Ethnology 2000). An inventory of the identified skeletal elements, along with their sex and approximate age, is provided in Table 22.

A review of this inventory along with the Curtiss notes and letters indicates (not surprisingly) that Curtiss considered skulls in good shape to be worthy specimens for the museum. Of the 21 individuals (from 16 graves) identified within the Peabody sample, 15 were represented by craniums, with another three defined by mandibles. The remaining three individuals (Graves 8, 33, 49) were identified on the basis of a very few, non-remarkable post-cranial elements (possibly included unintentionally or as an afterthought). The Curtiss notes do not indicate any saved skeletal remains from these last three graves. The grave 49 notes do state, however, that the cranium was broken.

Several discrepancies are apparent when the crania that Curtiss (reportedly) saved are compared to the Peabody Museum inventory. Curtiss reports saving crania from three graves (1, 6, 17) that do not appear in the Peabody inventory. Likewise, there are three graves (10, 63, 105 [grave 12 outside the earthwork]) with a combined four crania and one mandible in the Peabody inventory that were not mentioned by Curtiss as having been saved.

Table 21 A Summary of Burial Information from the 1878 Curtiss Notes at Rutherfords Farm.

Burial #	Curtiss Burial #	# Individ.	Grave L (in)	Grave W (in)	Grave Depth (in)	Head Facing	Burial Floor	Grave Items	Comments
1	1	1	4	18	12	E	sherds	-	crania saved; grave found near one of the circle mounds
2	2	1	5	13	12	N	-	shells, charcoal, ashes	nothing saved
3	3	1	-	-	-	NE	-	-	nothing saved
4	4	1	-	-	-	NE	-	-	nothing saved
5	5	1	5	"usual"	"usual"	W	-	-	nothing else found or saved
6	6	1	5' 6"	18	19	W	-	-	body head saved
7	7	1	6	22	14	W	-	broken large dish, bone implement	first tier; bones nearly all gone
8	8	1	6	21	14	E	-	broken dish	nothing saved
9	9	1	5	18	12	NW	-	-	crania saved; nothing else found in grave
10	10	1	5	18	12	NW	-	-	nothing found with body
11	11	1	3	15	10	-	-	small image, shell fragments or totems	child
12	12	1	6	18	12	S	-	-	first tier; nothing saved
13	13	2	6	-	-	N/S	-	-	one crania saved
14	14	1	6	20	13	N	-	one pot and broken jar	bones nearly all gone
15	15	1	-	-	-	-	-	-	nothing saved
16	16	1	-	-	-	-	-	-	nothing saved
17	17	1	6	20	14	N	-	beads	first tier, one of first buried in mound 8; good preservation bones, crania saved
18	18	1	6	20	14	N	-	broken pot (pieces all saved)	nothing else saved
19	19	1	-	-	-	-	-	-	adult, nothing found or saved
20	20	1	-	-	-	-	-	-	adult, nothing found or saved
21	21	1	-	-	-	-	-	-	adult, nothing found or saved
22	22	1	-	-	-	-	-	-	adult, nothing found or saved
23	23	1	-	-	-	-	-	-	adult, nothing found or saved
24	24	1	-	-	-	-	-	-	adult, nothing found or saved
25	25	1	-	-	-	-	-	-	adult, nothing found or saved
26	26	1	-	-	-	-	-	-	adult, nothing found or saved
27	27	1	-	-	-	-	-	-	adult, nothing found or saved
28	28	1	-	-	-	-	-	-	adult, nothing found or saved
29	29	1	-	-	-	-	-	-	adult, nothing found or saved
30	30	1	5	-	-	-	-	one piece pottery	fragments of burned long bones found, burned where they were buried as clay and earth was burned
31	31	1	6	20	14	S	-	beads, drill	crania saved but broken (not shipped)
32	32	1	-	-	-	-	-	two beads	burned bones
33	33	1	6' 8"	22	?	S	-	beads, one "conk" shell ???, one button formerly covered with copper, a small piece of galena or lead	first tier; "vane" of lead ore found about ¾ mile from mound within a year or so
34	34	1*	-	-	-	-	-	-	bones disturbed by plow, none saved

Table 21. A Summary of Burial Information from the 1878 Curtiss Notes at Rutherfords Farm. (continued)

Burial #	Curtiss Burial #	# Individ.	Grave L (in)	Grave W (in)	Grave Depth (in)	Head Facing	Burial Floor	Grave Items	Comments
35	35	1*	-	-	-	-	-	-	bones disturbed by plow, none saved
36	36	1*	-	-	-	-	-	-	bones disturbed by plow, none saved
37	37	1*	-	-	-	-	-	-	bones disturbed by plow, none saved
38	38	1*	-	-	-	-	-	-	bones disturbed by plow, none saved
39	39	1*	-	-	-	-	-	-	bones disturbed by plow, none saved
40	40	1*	-	-	-	-	-	-	bones disturbed by plow, none saved
41	41	1*	-	-	-	-	-	-	bones disturbed by plow, none saved
42	42	1*	-	-	-	-	-	-	bones disturbed by plow, none saved
43	43	1*	-	-	-	-	-	-	bones disturbed by plow, none saved
44	44	1*	-	-	-	-	-	-	bones disturbed by plow, none saved
45	45	1*	-	-	-	-	-	-	bones disturbed by plow, none saved
46	46	1*	-	-	-	-	-	-	bones disturbed by plow, none saved
47	47	1	5	20	15	-	-	one large image (fragmented)	detailed a man to sift and find fragments
48	48	1	5	20	15	N	-	one large jar	jar found right side of crania
49	49	1	6	20	19	N	-	beads and worked shell or totem	crania broken
50	50	3	-	-	-	-	-	-	skull and two jaw bones
51	51	no information presented on this burial number in Curtiss notes							
52	52	1	5	19	12	W	-	totem and beads	nothing else saved
53	53	1	-	-	-	-	-	-	nothing found
54	54	1 or 4?	6’ 6”	20	12	W	-	one bead, two worked shell fragments	one crania saved; broken bones badly decayed; one bead and two fragments of worked shell saved; grave full of periwinkles.
55	55	1	-	-	-	-	-	-	nothing found; all graves within earthwork near small circles
56	56	1	-	-	-	-	-	-	nothing found; all graves within earthwork near small circles
57	57	1	-	-	-	-	-	-	nothing found; all graves within earthwork near small circles
58	58	1	-	-	-	-	-	-	nothing found; all graves within earthwork near small circles
59	59	1	-	-	-	-	-	-	nothing found; all graves within earthwork near small circles
60	60	1	-	-	-	-	-	-	nothing found; all graves within earthwork near small circles
61	61	1	-	-	-	-	-	-	nothing found; all graves within earthwork near small circles
62	62	1	-	-	-	-	-	-	nothing found; all graves within earthwork near small circles

* graves 34-46 described together, with “several having two and three bodies”

Table 22. Inventory of Skeletal Remains Acquired from the 1878 Curtiss Excavation at Rutherford's Farm.*

Burial #	Curtiss Burial #	Peabody Acc. #	Sex	Age	Elements
8	8	79-4-10/17241.0	?	Adult	Fragmented L femur.
9	9	79-4-10/17242.0	F	Adult	L and R parietal, L and R temporal, L and R maxilla, L and R zygomatic, partial L and R nasal, L and R palatine, mandible, frontal, occipital, sphenoid, ethmoid, fragmented vomer, fragmented hyoid, 2 incisors, 2 canines, 8 premolars, 6 molars.
10	10	79-4-10/17243.0	M	Adult	L and R parietal, L and R temporal, L and R maxilla, L and R zygomatic, partial nasal, L lacrimal, fragmented L and R palatine, mandible, frontal, occipital, sphenoid, fragmented vomer, fragmented hyoid, 1 incisor, 1 canine, 3 premolars, 2 molars.
13	13	79-4-10/17245.0	F	Adult	L and R parietal, L and R temporal, L and R maxilla, L and R zygomatic, L and R nasal, L and R palatine, L INC, fragmented R INC, mandible, frontal, occipital, sphenoid, fragmented ethmoid, 3 incisors, 3 canines, 6 partial premolars, 10 molars.
33	33	79-4-10/17263.1	?	Adult	1 incisor.
		79-4-10/17267.0			Complete sacrum.
49	49	79-4-10/17274.0	?	Adult	1 lumbar vertebrae, complete sacrum.
50	50	79-4-10/17275.0	F?	Adult	L and R parietal, L and R temporal, L and R maxilla, L and R zygomatic, L and R nasal, L palatine, L and R INC, frontal, occipital, sphenoid, partial ethmoid, fragmented vomer, mandible, 1 premolar, 4 molars.
50	50	79-4-10/17275.1	?	Adult	Complete mandible, 1 incisor, 1 canine, 4 premolars, 6 molars.
50	50	79-4-10/17275x	?	Adult	Partial mandible, 1 premolar, 6 molars.
54	54	79-4-10/17285.0	F	Adult	L and R parietal, L and R temporal, L and R maxilla, L and R zygomatic, L and R nasal, L and R palatine, mandible, frontal, occipital, sphenoid, partial ethmoid, fragmented vomer, 2 incisors, 4 canines, 7 premolar, 8 molars.
63	63	79-4-10/17278.0	M?	Adult	L and R parietal, L and R temporal, L and R maxilla, L and R zygomatic, L and R nasal, L and R palatine, mandible, frontal, occipital, sphenoid, partial ethmoid, partial vomer, 1 incisor, 4 canines, 8 premolars, 12 molars.
63	63	79-4-10/17279.0	M	Adult	L and R parietal, L and R temporal, L and R maxilla, L and R zygomatic, L and R nasal, L and R lacrimal, L and R palatine, L and R INC, mandible, frontal, occipital, sphenoid, ethmoid, vomer, 3 incisors, 2 canines, 3 partial premolars, 11 molars.
63	63	79-4-10/17279x	?	Adult	Complete mandible, 3 partial premolars.
64	64	79-4-10/17281.0	F	Subadult	L and R parietal, L and R temporal, L and R maxilla, L and R zygomatic, partial nasal, L lacrimal, L and R palatine, R INC, mandible, frontal, occipital, sphenoid, partial ethmoid, vomer, 4 incisors, 4 canines, 4 premolars, 7 molars.
64	64	79-4-10/17282.0	F	Adult	L and R parietal, L and R temporal, L and R maxilla, L fragmented zygomatic, R zygomatic, partial nasal, L and R lacrimal, L and R palatine, mandible, frontal, occipital, sphenoid, ethmoid, fragmented vomer, 1 canine, 5 premolars, 10 molars.
71	71	79-4-10/17286.0	M	Adult	L and R parietal, L and R temporal, L and R maxilla, L and R zygomatic, L and R nasal, partial lacrimal, L and R palatine, L and R INC, mandible, frontal, occipital, sphenoid, ethmoid, fragmented vomer, 2 incisor, 2 canines, 8 premolars, 6 molars.
72	72	79-4-10/17287.0	F	Adult	L and R parietal, L and R temporal, partial L maxilla, R maxilla, R zygomatic, L and R nasal, L and R palatine, mandible, frontal, occipital, partial sphenoid, fragmented ethmoid, 1 canine.
74	74	79-4-10/17288.0	F	Adult	L and R parietal, L and R temporal, L and R maxilla, L and R zygomatic, L and R nasal, L and R lacrimal, L and R palatine, L and R INC, mandible, frontal, occipital, sphenoid, ethmoid, vomer, 2 incisor, 2 canines, 4 premolars, 8 molars.
85	85	79-4-10/17289.0	M	Adult	L and R parietal, L and R temporal, L and R maxilla, L and R zygomatic, L and R nasal, L and R palatine, fragmented L and R INC, mandible, frontal, partial occipital, fragmented sphenoid, fragmented vomer, 1 incisor, 2 canines, 5 premolars, 4 molars.
104	11	79-4-10/17309.0	F	Adult	L and R parietal, L and R temporal, L and R maxilla, L and R zygomatic, partial L and R nasal, L and R palatine, L INC, mandible, frontal, occipital, sphenoid, fragmented ethmoid, 2 incisor, 2 canines, 2 premolars, 10 molars.
105	12	79-4-10/17314.0	M	Adult	L and R parietal, L and R temporal, R zygomatic, fragmented L and R nasal, partial mandible, frontal, occipital, sphenoid, fragmented ethmoid, fragmented vomer, 2 canines, 2 premolars, 3 molars, R scapula.

* data compiled from NAGPRA inventory, Peabody Museum of Archaeology and Ethnology, Harvard University.

There should be nothing sinister associated with this discrepancy. Just because Curtiss saved a cranium in the field does not mean that he actually shipped it to the Peabody Museum. For example, he reports that he did save a cranium from grave 31 but later decided not to ship it. It is very probable that these crania from graves 1, 6, and 17 were later deemed unworthy to send to Putnam. Regarding the Peabody inventory, the Curtiss notes for grave 10 do mention the head, and that nothing (i.e. artifacts) was with the body. However, no specific information was provided about what was saved or not saved from grave 10. The notes for grave 64 are hard to read, with several illegible words. This particular grave was very complicated, with multiple individuals and exotic artifacts. The two craniums and one mandible that occur in the Peabody inventory for grave 64 blend well with the limited information in the field notes. The presence of the grave 105 (grave 12 outside the earthwork) cranium is interesting since Curtiss did indicate in his field notes that nothing was saved from this grave.

Artifact Descriptions

Curtiss and his men recovered a variety of ceramic, lithic, shell, and copper artifacts from the 108 graves. An inventory of these artifacts is displayed in Table 23. The editors examined most of these items during the March 1998 and March 1999 trips to the Peabody Museum. Specimen descriptions are presented by artifact category.

A small number of artifacts were not personally examined during the Peabody visits. These particular specimens have been noted in Table 23. These items include most of the shell gorgets and several copper fragments currently stored in a different facility. Fortunately, the shell gorgets have been previously examined and are described in this section (Brain and Phillips 1996). The copper items are also presented here, having been published in an earlier work (Putnam 1973). A negative painted, owl effigy bottle from grave 14 (inside the earthwork) was not examined, but has been described from a photograph. Three pottery vessels from graves 8 and 17 comprise unanalyzed items that are not discussed in this section.

Ceramic Artifacts

This category section provides descriptions of 14 ceramic artifacts from the Peabody collection (including the owl effigy bottle). These items include nine pottery vessels (four bottles, three jars, and two bowls), two figurines, one rim rider fragment, one disk, and one trowel.

Bottles

One artifact from a “stone grave mound” comprises the base and body of a (carafe neck?) bottle (PM 79-4-10/17306). Most of the neck is missing. The exterior surface is plain, with fine crushed mussel shell as the temper. This vessel stands 11.0 cm high from the flat base to the broken section just where the neck and shoulder meet. A maximum vessel diameter of 13.2 cm was noted.

Table 23. Inventory of Peabody Museum Artifacts from Rutherford's Farm.

Accession No.	Curtiss Reference	Artifact Description
PM 79-4-10/17306	Stone grave mound	Dover chisel section
PM 79-4-10/17304	Stone grave mound	Crude limestone disk
PM 79-4-10/17303	Stone grave mound	Two marine shell earplugs
PM 79-4-10/17301	Stone grave mound	Bottle body and base (carafe neck?)
PM 79-4-10/17307	Stone grave mound	Fish effigy bowl
PM 79-4-10/17240.1	Stone grave 8	* Earthen dish, broken
PM 79-4-10/17240.2	Stone grave 8	* Earthen dish, broken
PM 79-4-10/17244	Stone grave 11	Clay figurine (lotus position?)
PM 79-4-10/17246	Stone grave 14	Strap-handle jar, lobed
PM 79-4-10/17247	Stone grave 14 *	Negative painted, owl effigy, hooded bottle
PM 79-4-10/17248	Stone grave 14	** Copper "stud"
PM 79-4-10/17249	Stone grave 14	Olivella shell bead
PM 79-4-10/17252	Stone grave 17	2 marine shell earplugs; 2 marine shell beads/earplugs
PM 79-4-10/17250	Stone grave 17	* Earthen pot, broken
PM 79-4-10/17254	Stone grave 18	Notched rim (applique) bowl
PM 79-4-10/17253	Stone grave 18	Strap-handle jar, lobed
PM 79-4-10/17255	Stone grave 30	Ceramic trowel, mushroom variety
PM 79-4-10/17259	Stone grave 31	Drill bit section
PM 79-4-10/17256	Stone grave 31	3 marine shell beads
PM 79-4-10/17258	Stone grave 31	* Flint drill
PM 79-4-10/17264	Stone grave 33	Cedar disk with thin layer of copper and section of bison horn core
PM 79-4-10/17266	Stone grave 33	Limestone disk
PM 79-4-10/17261	Stone grave 33	Marine shell bead
PM 79-4-10/17265	Stone grave 33	2 galena cubes; quartz crystal
PM 79-4-10/17263	Stone grave 33	* Shell beads
PM 79-4-10/17262	Stone grave 33	* Shell, center column removed, hole in top
PM 79-4-10/17269	Stone grave 47	Negative painted, human effigy, hooded bottle
PM 79-4-10/17271	Stone grave 49	Marine shell bead necklace
PM 79-4-10/17272	Stone grave 49	Marine shell gorget, Nashville style
PM 79-4-10/17273	Stone grave 49	Mica fragments
PM 79-4-10/17277	Stone grave 54	Marine shell bead
PM 79-4-10/17277A	Stone grave 54	** Marine shell gorget
PM 79-4-10/17277B	Stone grave 54	** Marine shell gorget
PM 79-4-10/17277C	Stone grave 54	** Marine shell gorget
PM 79-4-10/17277D	Stone grave 54	** Marine shell gorget?
PM 79-4-10/17280	Stone grave 63	** Copper "band" fragments
PM 79-4-10/17283	Stone grave 64	* Shell beads
PM 79-4-10/17284	Stone grave 64	** Marine shell gorget
PM 79-4-10/17290	Stone grave 85	Limestone discoidal
PM 79-4-10/17291	Stone grave 85	Small quartzite hammerstone
PM 79-4-10/17293	Stone grave 86	Limestone spindle whorl/bead
PM 79-4-10/17296	Stone grave 87	Ceramic disk (shell temper)
PM 79-4-10/17294	Stone grave 87	Jar (plain surface)
PM 79-4-10/17295	Stone grave 87	Marine shell bead; marine shell earplug
PM 79-4-10/17298	Stone grave 92	Human effigy head (solid), possibly from bowl
PM 79-4-10/17300	Stone grave 93	Clay figurine (hunchback)
PM 79-4-10/17311	Stone grave 11, outside earthwork	Lowe Cluster dart
PM 79-4-10/17312	Stone grave 11, outside earthwork	Stemmed dart point
PM 79-4-10/17310	Stone grave 11, outside earthwork	Hammerstone
PM 79-4-10/17315	Stone grave 13, outside earthwork	12 marine shell beads.
PM 79-4-10/17316	Stone grave 13, outside earthwork	Hooded, tri-stirrup, blank face, human effigy bottle
PM 79-4-10/17316	Stone grave 14, outside earthwork	** Marine shell gorget
PM 79-4-10/17329	?	Dover ovate knife
PM 79-4-10/17283	?	2 marine shell earplugs

*artifact not examined during 3/98 or 3/99 trips to Peabody Museum.

**artifact not examined, but has previously published description.

One of the more unusual ceramic vessels recovered by Curtiss was a negative painted, hooded human effigy bottle from grave 47 (PM 79-4-10/17269). This image is a female sitting on a bottle base (Figure 82). Her legs are draped in front of the body, with applique arms resting inward on her lap and bent at a ninety-degree angle at the elbow. The buff colored paste contains fine mussel shell as the temper. Faint traces of negative painting are still visible along the lower side and buttocks. This bottle measures 28.2 cm in height, and 16.5 cm in maximum width.

Figure 82. Photograph and editor's sketches of human effigy bottle (PM 79-4-10/17269) recovered from grave 47 during the 1878 Curtiss excavation.

Curtiss (in excavation notes to Putnam dated December ??, 1878) makes two different references to a grave 13 outside the earthwork. The first grave 13 reference states nothing but crania were found. However, a second grave 13 reference mentions a "…wonderful vessel in pieces the same as is you found in lebnon and marked 50 in the report." This pottery vessel is mentioned again in the December 22, 1878 letter from Curtiss to Putnam:

> …I have got the largest image I have ever found but it was broken by the plough but I saved all the pieces I could find I can put your piece of potery in the shade the one you marked 50 in the lebenon collection I found this one laying at the head of a grave on the east side under the top rocks or covering stones I dug around it careful and raised it up and thought what a prize I had found and it fell in nearly a hundred pieces I saved them all and if the potery is not to rotten you can stick it together again…(Curtis to Putnam, December 22, 1878; Accession File 79-4 Peabody Museum Collections Dept., Harvard University)

The Rutherford-Kizer specimen is a hooded, blank face, human effigy bottle with tri-stirrup handles (PM 79-4-10/17316). This extraordinary vessel stands 26.0 cm tall and displays several reconstructed areas (most notably the top knot and one stirrup handle). Figure 83 presents an image of the Rutherford-Kizer specimen alongside the vessel "found in lebnon [Sellars site, 40Wi1] and marked 50 in the report." This figure illustrates these two vessels are in fact vastly different bottle types. There is a vague similarity between the 40SU15 bottle stirrup handles, and the 40Wi1 bottle legs.

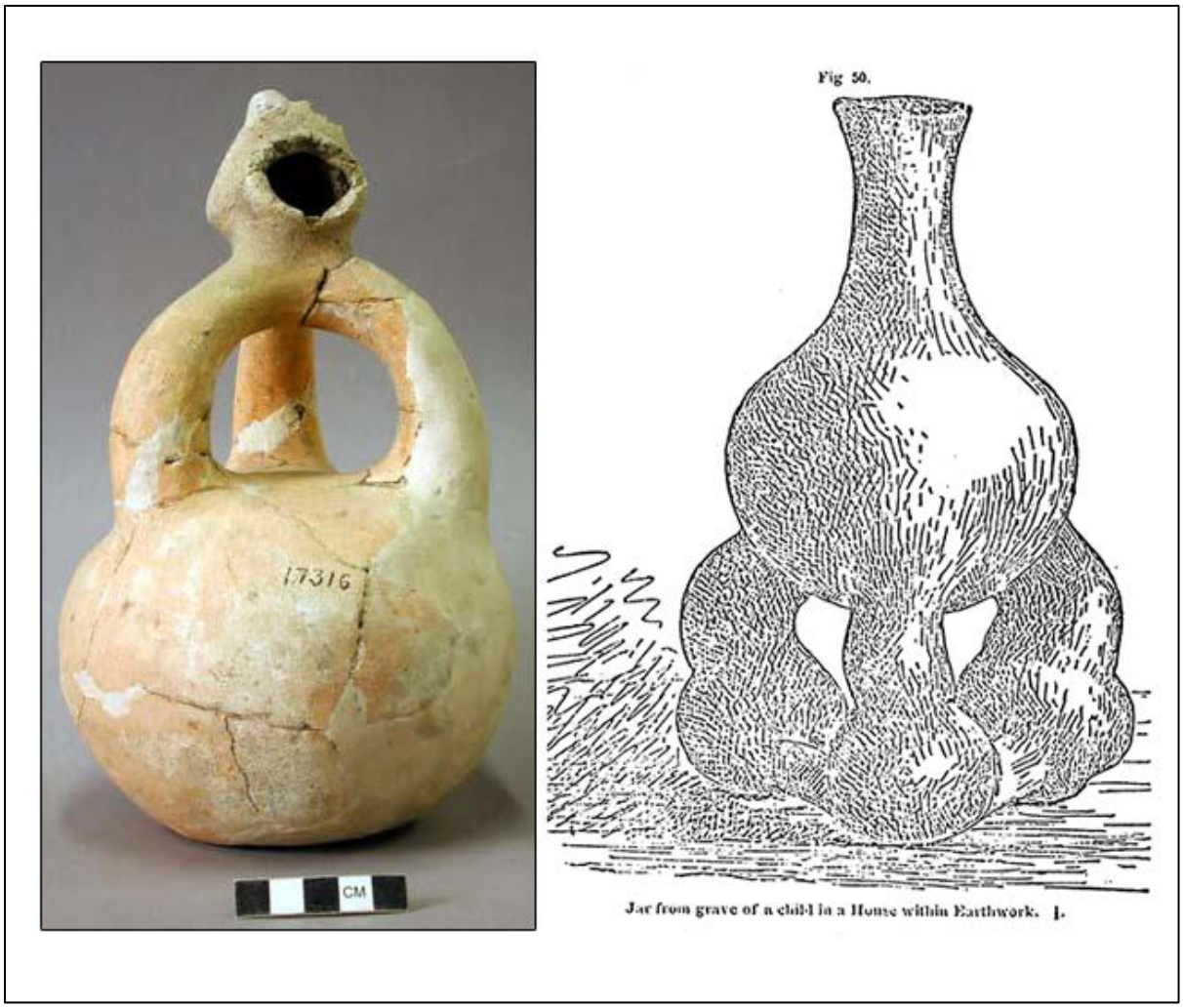

Figure 83. Comparison of tri-stirrup vessel from Rutherford-Kizer (PM 79-4-10/17316) with Putnam vessel from Sellars Farm.

A very nice negative painted bottle was retrieved from grave 14 inside the earthwork. This hooded owl effigy vessel was not available for examination, but has been documented by a photograph (see report cover). This reconstructed specimen displays a globular body and flattened base, with a head that has large eyes, a prominent beak, and two (feather?) tufts. A sizeable portion of the vessel body (front) has been negative painted. Dark (most likely brown) sun circle and cross motifs are displayed on a buff background. No vessel measurements are available at this time.

Jars

A lobed, strap-handle jar was found in grave 14 (PM 79-4-10/17246). This vessel is not incised, but mimics the Matthew Incised, *variety Matthews* style with the lobes (Figure 84). The paste has crushed mussel shell as the temper, and falls within the Mississippi Plain type. Interior orifice diameter is a maximum 10.3 cm, with a maximum vessel width of 14.2 cm. The vessel stands 10.5 cm high.

Grave 18 also yielded a lobed, strap-handle jar (PM 79-4-10/17253). This shell-temper vessel measures 6.9 cm in orifice diameter, 10.33 cm in maximum width, and 7.5 cm in height (Figure 85).

Recovered from grave 87 was a small shell-temper jar (PM 79-4-10/17294). The exterior surface is plain. A direct to ever so slightly everted rim yielded an interior orifice diameter of 3.5 cm. This vessel is 7.0 cm tall.

Bowls

Another ceramic artifact with the reference “stone grave mound” is a fish effigy bowl (PM 79-4-10/17307). The maximum length of this fine shell-temper vessel is 10.25 cm. Maximum orifice diameter is 6.33 cm. Vessel height is 5.0 cm.

One shell-temper bowl with a notched rim applique was recovered in grave 18 (PM 79-4-10/17254). This vessel displays an orifice diameter of 16.5 cm, a maximum width of 18.5 cm, and stands 6.8 cm tall. This nearly complete vessel has a flat base that measures 10.3 cm in diameter.

Figurines

Grave 11 yielded a rather small, solid clay figurine that measures 7.74 cm in height (PM 79-4-10/17244). This shell-temper image is male, and appears to be sitting in the lotus position (Figure 86). The arms are forward with hands resting on the knees. One interesting feature of this figurine is the eyes, which appear closed and may represent a blind person, or possibly someone in meditation.

A clay figurine fragment was found in grave 93 (PM 79-4-10/17300). This shell-temper specimen is a sitting human effigy with both legs and one arm missing. The protruding torso of this unsexed individual is concave in the abdomen region. Hair, buttocks and a hunched back are represented on the back side. This figurine measures 7.76 cm high and a maximum 4.16 cm wide.

Figure 84. Photograph and editor's sketch of lobed, strap-handle jar (PM 79-4-10/17246) recovered from grave 14 during the 1878 Curtiss excavation.

Figure 85. Photograph and editor's sketch of lobed, strap-handle jar (PM 79-4-10/17253) recovered from grave 18 during the 1878 Curtiss excavation.

Figure 86. Photograph and editor's sketch of figurine (PM 79-4-10/17244) recovered from grave 11 during the 1878 Curtiss excavation.

Rim-Rider Fragment

Grave 92 contained a human head fragment that likely originated from a bowl (PM 79-4-10/17298). This probable rim rider is solid with a paste containing crushed mussel shell (Figure 87). The specimen itself is in good shape as the primary facial features and hair are represented. Maximum width (ear to ear) of this specimen is 4.05 cm. The maximum length, from top knot to broken area below the neck (where connected to vessel) is 7.6 cm.

Disk

One shell-temper ceramic disk measuring 3.27 cm in diameter was retrieved from grave 87 (PM 79-4-10/17296). This specimen is 1.55 cm in maximum thickness. Disks comprise one of those artifact categories that lend themselves to speculation. Gaming pieces or betting objects represent the most popular interpretations. Use as bottle or other vessel stoppers has also been suggested.

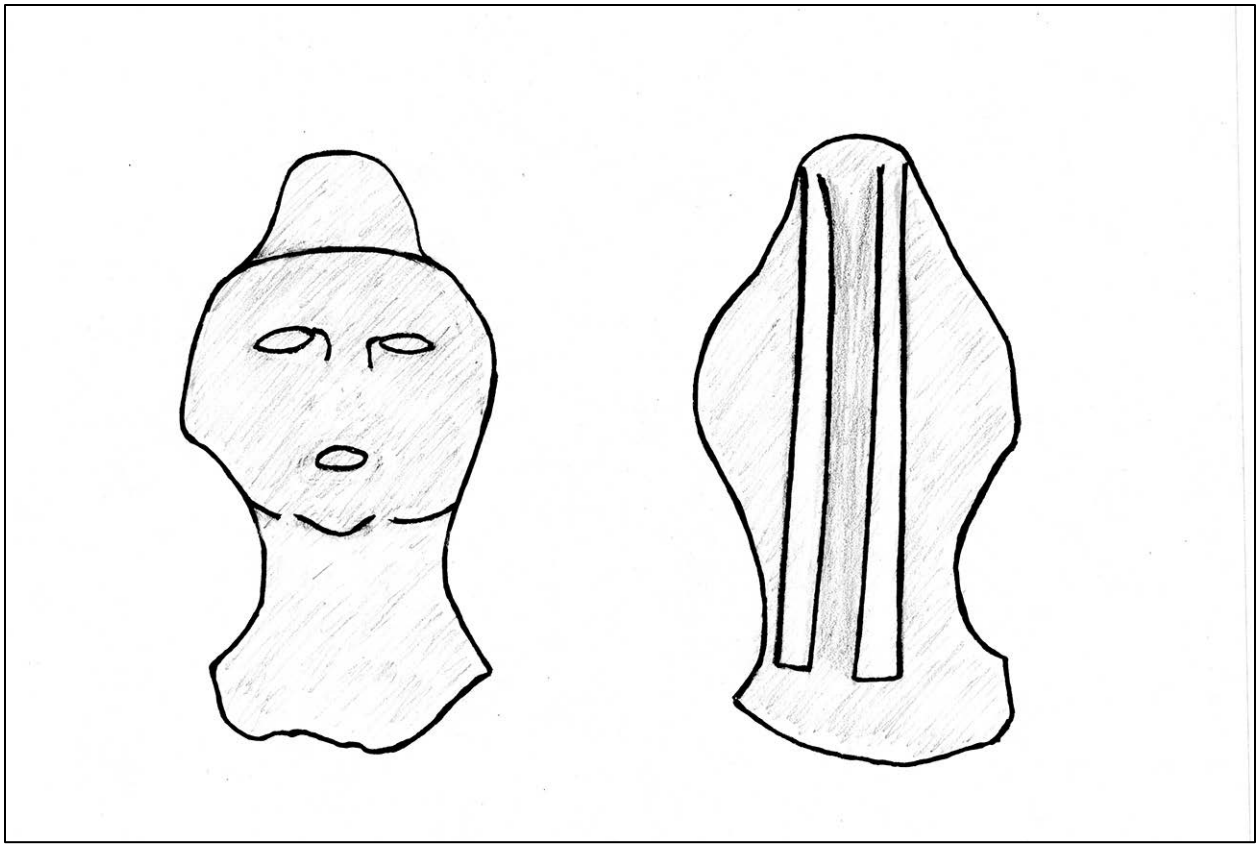

Figure 87. Editor's sketch of rim-rider fragment (PM 79-4-10/17298) recovered from grave 92 during the 1878 Curtis excavation.

Trowel

A nearly complete ceramic trowel was recovered from grave 30 (PM 79-4-10/17255). This trowel is the "mushroom" variety. The slightly convex base measures 8.4 cm in diameter. The base and handle together are 7.1 cm long.

Lithic Artifacts

Stone tools and other objects are minimally represented in the Peabody sample. These items include two disks, one discoidal, one probable spindle whorl.

Several other miscellaneous tools are present in the collection but have not been described due to their fragmented or undefined nature. These items consist of a Dover chisel fragment (PM 79-4-10/17306), one drill bit section of local chert (PM 79-4-10/17259), a possible hammerstone of quartzite (PM 79-4-10/17291), one Lowe Cluster dart point (17311), and an unidentified stemmed dart point (PM 79-4-10/17312).

Disks

One crude disk of limestone was found in a burial with the "stone grave mound" reference (PM 79-4-10/17304). This disk measures 29.5 mm in diameter and 9.3 mm thick.

A heavily ground limestone disk was recovered from grave 33 (PM 79-4-10/17266). This item measures 29.6 mm in diameter and 9.3 mm thick.

Discoidal

Grave 85 yielded a small discoidal of fine-grain limestone that only measures 48.0 mm in diameter (PM 79-4-10/17290). This discoidal is a bit unusual in that the sides are convex and extend noticeably beyond the artifact edge. While the edge measures 22.0 mm thick, the maximum thickness of this discoidal is 30.9 mm.

Spindle Whorl?

One well-made item of ground limestone was found in grave 86 (PM 79-4-10/17293). Classification of this particular artifact is uncertain, but it is probably either a spindle whorl or large bead. The item is disk-like, except the sides are concave and there is a hole in the center. The maximum diameter is 26.5 mm, and the maximum thickness of the concave interior is 12.1 mm.

Ovate Knife (Dover)

One Dover chert ovate knife in the collection is attributed to the Rutherford-Kizer site, but from an undesignated provenience. This artifact displays fine craftsmanship and is nearly complete except for one fractured edge. Despite the fracture, this artifact is still 226.0 mm long. This knife has a maximum width of 40.6 mm, and a maximum thickness of 12.9 mm.

Minerals

Minerals probably comprise the least represented artifact type from the Curtiss excavations. Only two graves contained such artifacts. Galena and quartz crystal were found inside grave 33, with mica recovered from grave 49.

Mica

Five rectangular fragments of mica are reported for grave 49 (PM 79-4-10/17273). A very small box with mica pieces was present in the same curation tray with other Rutherford-Kizer artifacts. These specimens are most likely the grave 49 mica fragments. However, these particular items were not handled due to their fragile nature and unwashed condition.

Galena

Two small, somewhat irregular shaped cubes of galena come from grave 33 (PM 79-4-10/17265). This mineral is often considered an exotic resource of non-local origin. However, Curtiss mentions in his field notes that a vein of lead ore had been recently found within three-quarters of a mile from the site area. The location of this particular vein is unknown at this time.

Quartz Crystal

Also found in grave 33 was a small quartz crystal (PM 79-4-10/17265) measuring just over two centimeters long. The origin of this specific resource is problematic due to the specimen size.

Shell Artifacts

The Peabody collection holds a variety of marine shell artifacts (likely whelk or conch) from 40SU15, including gorgets, earplugs, and beads. One specimen of *olivella* is also present in the assemblage. No freshwater shell artifacts occur within the artifact collection attributed to Rutherford-Kizer.

Curtiss sent a total of eight shell gorgets to the Peabody museum. Seven specimens were not available for examination by the editors. Fortunately, these same seven artifacts were previously examined and discussed in a recent Peabody Museum Press volume on shell gorgets (Brain and Phillips 1996:260–261).

The editors did examine an eighth specimen that was not included in the previously mentioned volume (Figure 88). This particular gorget has an accession number PM 79-4-10/17272 that refers to grave 49. Unfortunately, the presence of specimen PM 79-4-10/17272 creates a discrepancy with another gorget assigned to grave 49 by Brain and Phillips (1996:260). The gorget assigned to grave 49 by Brain and Phillips has the accession number PM 79-4-10/17303 that corresponds to an unnumbered "stone grave mound" burial. Brain and Phillips (1996:260) assigned gorget PM 79-4-10/17303 [Tenn-Sr-R15] to grave 49 based on a "process of elimination" that now appears in error due to the presence of the actual Burial 49 gorget PM 79-4-10/17272. The fact that these two gorgets have different accession numbers that refer to contrary locations (grave 49 and "stone grave mound") indicates that gorget PM 79-4-10/17272 came from grave 49, and that gorget PM 79-4-10/17303 indeed came from another burial (stone grave mound) with no assigned number.

All of the earplugs described in this section had been initially classified in the Peabody accession catalog as large beads. But their size and general hourglass morphology is very close to the more familiar ceramic earplugs. These specimens do not exhibit drilled holes.

Gorgets

The single specimen from grave 49 examined by the editors comprised a Nashville style scalloped triskele (PM 79-4-10/17272). This nearly complete artifact has some damage and wear along the scalloped edges (see Figure 88). Engraving was observed on the concave side of this gorget, which has a maximum diameter of 8.95 cm and a maximum thickness of 0.41 cm.

Another Nashville style scalloped triskele was recovered from an unnumbered burial with a "stone grave mound" reference (PM 79-4-10/17303). Brain and Phillips (1996:260) erroneously attributed this particular specimen [Tenn-Sr-R15] to grave 49. This specimen has two holes for suspension.

Burial 54 has three engraved gorgets (PM 79-4-10/17277). One specimen [Tenn-Sr-R9] is a Cox Mound style, with the other two [Tenn-Sr-R11 and Tenn-Sr-R12] representing Nashville style triskeles (Brain and Phillips 1996:260–261). A fourth shell [Tenn-Sr-R10] is also present in the burial but may or may not actually be a gorget. The surface of this fourth artifact is plain. One gorget [Tenn-Sr-12] displays two suspension holes.

Figure 88. Nashville style gorget (PM 79-4-10/17272) recovered from grave 49 during the 1878 Curtiss excavations.

Brain and Phillips (1996) report another Nashville style scalloped triskele gorget [Tenn-Sr-R13] from grave 64. Two holes for suspension are visible. The Peabody Museum NAGPRA inventory lists the accession number as PM 79-4-10/17284.

Burial 14 (outside the earthwork) yielded yet another Nashville style scalloped triskele gorget (PM 79-4-10/17318). Brain and Phillips (1996) indicate this specimen [Tenn-Sr-R8] was unusual since it was engraved on the convex side. Two suspension holes appear on this item.

Earplugs

Two marine shell earplugs were recovered from a burial with the "stone grave mound" reference (PM 79-4-10/17303). One item measures 20.48 mm in length, with a maximum thickness of 12.27 mm. The second specimen has an overall length of 18.16 mm, and measures 11.3 mm thick.

Grave 17 contained four marine shell items (PM 79-4-10/17252). Two of these are obviously earplugs. One earplug measures 23.0 mm in length, and 14.0 mm in maximum thickness. The second earplug has an overall length of 21.0 mm, and a maximum thickness of 15.0. The other two items from this grave could either be earplugs or large beads. These particular artifacts measure 28.0 mm and 23.0 mm long, and 14.5 mm and 16.2 mm thick, respectively.

One earplug is associated with grave 87 (PM 79-4-10/17295). This specimen measures 21.1 mm long and has a maximum thickness of 15.3 mm.

Two earplugs with no provenience are also assigned to the Rutherford-Kizer site assemblage (PM 79-4-10/17283). The first item measures 18.3 mm long with a maximum thickness of 11.8 mm. The second specimen is 19.3 mm long and 11.0 mm thick.

Beads

Grave 14 yielded one olivella shell bead (PM 79-4-10/17249). This artifact measures 30.93 mm in length, and 13.0 mm in maximum diameter.

Three very large beads are associated with grave 31 (PM 79-4-10/17256). All of these (barrel type) specimens are similar in morphology and size, measuring about 18.0 mm long and 18.4 mm thick.

Grave 33 contained one bead (PM 79-4-10/17261). Of note is that this particular bead is much longer than the other assemblage specimens. This drilled item measures 23.88 mm long and 13.33 mm thick.

Over 1,150 beads (presumably from a necklace) were found in grave 49 (PM 79-4-10/17271). All but three of these specimens were the same size, measuring 4.4 mm long and 4.0 mm in diameter. The remaining three beads were barrel shaped and much larger than the other beads. One interesting observation is that although Curtiss noted beads were present inside grave 49, he certainly failed to mention the overwhelming number of them.

One bead was found in grave 54 (PM 79-4-10/17277). This item measures 16.19 mm long and 20.09 mm in maximum diameter.

Grave 87 also yielded one bead (PM 79-4-10/17295). However, no measurements are available for this specimen.

Grave 13 (outside the earthwork) contained twelve large barrel type beads (PM 79-4-10/17315). These generally similar specimens measured about 10 mm long and 11.7 mm thick. This is the same grave 13 that yielded the tri-stirrup, hooded bottle.

Copper Artifacts

Three graves explored by Curtiss (14, 33, and 63) yielded artifacts of copper. Similar to the shell artifacts, items from two of these graves (14 and 63) have been stored in a separate location and were not personally examined by the editors. The editors were able to inspect the specimen from grave 33. As fortune would have it, previous 19th century accounts by F. W. Putnam have described each of these copper items (Putnam 1973). For the benefit of the reader, Putnam's description of the grave 14 and 63 artifacts have been included in the paragraphs below. The grave 33 artifact has been described, with comparisons made to Putnam's account.

"Stud"

Putnam describes a "stud-like ornament" that was found by Curtiss in grave 14 (PM 79-4-10/17248):

> …the broken edges of the wood, and the crumbling copper-covering of the upper part…The upper portion of this stud-shaped piece of wood is circular and regularly convex, and is covered with a very thin piece of copper which is folded over the upper edge made by the groove separating the upper from the lower half of the stud. The lower portion of the wood, not having been covered with copper, is somewhat decayed and irregular, but it evidently was once a thin circular base. It is about three quarters of an inch in diameter and one quarter of an inch in thickness. A hole about the size of a pencil-lead passes through the centre from top to bottom. (Putnam 1973:126)

The field notes of Curtiss do not include any references as to where on the body this artifact was recovered. However, this item is likely an earring (or possibly a small ear spool) based upon Putnam's description and the crude sketch drawing that accompanies the text. Key clues include the "stud" shape, the coating of copper along the convex side only, and the groove that separates the upper and lower portions of the artifact.

"Band"

Putnam also described a copper artifact recovered in grave 63, "…and with these were about twenty small and much decayed fragments of what seemed to be the remains of a thin copper band…" (Putnam 1973:114). No additional comments can be made about this particular artifact. Curtiss' field notes do not disclose on what part of the body these fragments were found.

Copper Disk with Bison Horn Core

Undoubtedly the most unique artifact to come from the Rutherford-Kizer site was uncovered in grave 33. This specimen consists of a grooved disk of wood coated with a thin copper sheet on one convex side (PM 79-4-10/17264). What makes this artifact so unusual is that a thin, circular section of bison horn core was attached to this disk. Putnam describes this artifact as:

> An ornament of great interest, and the only one of the character of which I have knowledge…The under portion, or base, is made of a disk of wood, one and three-quarters inches in diameter and one-eighth of an inch thick, from which there rises a central boss about an eighth of an inch. The upper surface of the wood is covered by a thin sheet of copper folded over the edge of the wood into a groove. Through the centre of the boss is a small hole. Over this copper-covered surface was placed a circular piece of buffalo horn, nearly two and a half inches in diameter, and not over a sixteenth of an inch thick. The central portion of this disk of horn has been evenly cut out, leaving a hole seven-eighths of an inch in diameter, through which rises the copper-covered boss of the wooden disk. The copper on the wood is now much decayed and turned to a green carbonate, and the horn has become dingy and stained; but when placed in the grave this object was probably one of considerable beauty as well as of complicated design, and is another instance of the skill and labor bestowed on personal ornaments by the people who buried their dead in the stone-graves of Tennessee. The broken edge of one portion of the disk of horn is probably the place where two holes were made for suspending the object, and as a few fragments of horn were found with it, which seem to have been detached from this portion, there may have been a slight projection of

horn at that part of the disk. The under surface of the wood is rough, and it is probable that it was fastened to some material which has since decayed. (Putnam 1973:127–128)

One goal of the editors during the Peabody Museum trip was to examine this specific artifact given its unusual nature as described by Putnam. During our visit, this item was thoroughly inspected and measured. Figure 89 presents both a sketch and photograph of the artifact. The editors must state here that although we concur with Putnam's general description of the materials represented, we do have a different interpretation of how the bison horn core was attached to the disk, as well as how the artifact was displayed as a personal adornment. Such assessments are presented in the following paragraphs.

Figure 89. Copper-coated cedar disk and bison horn core section (PM 79-4-10/17264) recovered from grave 33 during the 1878 Curtiss excavation: (a) plan-view sketch of cedar disk with remnant copper; (b) profile sketch of cedar disk; (c) plan-view photo of cedar disk; (d) plan-view photo of bison horn core section.

The disk, made from cedar wood, measures 44.93 mm in diameter (see Figure 89). A small hole about 3.0 mm in diameter is in the center of the disk. The disk exhibits a continuous shallow groove about 2.0 mm deep along the lateral end. One side of this disk has a raised center section that is rounded. The opposite side of the disk is flat. The disk measures 4.59 mm thick along the exterior edge, and increases in thickness to 7.92 mm at the raised center area. This raised side displays the remnants of an attached copper sheet. The copper sheet is thin, although the exact thickness cannot be determined due to the exfoliating nature of the intact copper fragments. No evidence of copper was observed along the opposite flat side.

Also present with the copper-coated wood disk is a thin-sliced section of bison horn core (see Figure 89). The maximum thickness of this section is 1.69 mm. This bison horn slice is generally circular and has a maximum diameter of 58.24 mm. A large hole 22.85 mm in diameter is visible in the center. One side of the horn core section is fairly smooth, whereas the opposite side has a rougher texture. A part of the horn core edge has been removed in one area, either by intentional cuts or breakage. One important difference of opinion with Putnam's description is the manner in which the bison horn core section was attached to the copper-coated disk. Putnam states that the horn core piece fit over the raised section ("boss") of the wood disk. The editors believe the horn core piece was attached to the wood disk on the opposing flat surface. Our reasons are three-fold:

(1) The hole in the horn core slice does not fit well over the raised center area. Putnam's sketch (Putnam 1973:127) has this piece on top of the copper-coated "boss", but this is a bit misleading since it only fits about three-quarters down the raised surface.

(2) If the horn core slice fit over the raised center area, there should be some stains from contact with the copper. No stains or other evidence of contact with copper was observed on the horn core. Also, why cover the entire side with copper and then hide most of it from view?

(3) One side of the horn core slice has a rougher surface that meshes well with the wood disk's flat side. Putnam indicates the wood disk's flat side has a rough surface where something was likely fastened (but has since decayed). In our opinion, the horn core slice was the item attached to this flat surface.

The removed portion of the horn core is subject to some discussion. Putnam states this area was probably the location of several suspension holes that later broke off. This interpretation is possible, although the interior surfaces of this removed area are smooth and regular. Putnam's sketch (Putnam 1973:127) shows these edges as irregular and jagged, which is misleading since the design is actually crisp. It is possible that this edge was intentionally cut as a decorative design.

Putnam interprets this artifact as a personal adornment that was suspended (presumably as a necklace or gorget). Curtiss does not indicate in his field notes where in the grave this "…button made formerly covered with copper…" came from. However, the editors offer an alternative interpretation that this artifact was not a necklace or gorget, but rather an ear spool of exotic design. Several key factors support this interpretation, the primary one

being the continuous groove along the lateral edge of the disk. The decorative nature of only one side (raised in the center and covered with copper) is another factor. In addition, the hole in the middle of the disk may have been used for additional decorative material, or for dangling objects. If the removed area along the horn core rim was in fact the location of suspension holes, then these holes could also have been used to dangle objects. If the horn core edge was intentionally cut out, then this decorative design would have been exposed outside the wood disk.

XIII. SUMMARY REMARKS

Michael C. Moore and Kevin E. Smith

Understanding the Early Rutherford-Kizer Site Plans

Edwin Curtiss and Gates P. Thruston prepared separate maps of the Rutherford-Kizer site area within an approximate twelve-year period between 1878 and 1890. Whether or not Thruston was aware of (or had access to) the earlier Curtiss map cannot be definitively answered. However, we do know from Curtiss' letters that there was some level of communication between these two men.

Curtiss sketched his map (from memory?) within a month or so after completion of the December 1878 fieldwork (see Appendix H, letters of December 7th, 1878 and January 8, 1879). Conversely, the map published by Thruston was created using information from a survey of the site area by another individual (W. H. Edwards). The identity of the person who actually drew the map has been assumed to be Thruston, but it could just as well be Edwards. In addition, the actual date of the Thruston map is not really known either, although it is presumed to be the late 1880s (certainly before the book's initial publish date of 1890).

The early Curtiss and Thruston maps somewhat agree on the major earthworks present across the site area (see Figures 9 and 10). Each map displays one large platform mound and a smaller "grave" mound north of a fence row that still bisects the site to this day. Both maps also exhibit a series of small mounds across the southern site area. Finally, each map illustrates a palisade line (fortified with bastions) that encloses the entire site area.

In several instances, the site description of one author augments the information presented by the other. For example, Curtiss provides no specific information about the dimensions or shape of the large "sacrificial" platform mound in his notes. He does indicate on the map that the mound is generally square, with what looks like a ramp along the (corrected) northern side. Thruston includes specific measurements of the "chief" mound in his text using information obtained during the Edwards survey. He describes this mound as nearly 26 feet high and about 318 feet in circumference, with steep sides and a flat top.

For another example, the Curtiss sketch map marks the location of a stone-box cemetery ("graves") in the southeast site area outside the palisade line (in what is now the small greenspace area). Thruston, however, fails to locate this important site feature on his map, or even mention the presence of the cemetery in his site description. Whether or not this substantial cemetery was merely overlooked during the Edwards survey, or actually observed but deemed unimportant, is yet another subject for speculation.

Both Curtiss and Thruston note the presence of a smaller burial mound north of the fence row and east of the platform mound. However, neither man provides any discussion about this earthwork or its relationship to the rest of the site. Curtiss gives this mound a

"grave" label on the sketch map with no additional information in his notes. Thruston also denotes this "small elevation" on his map, but briefly refers to these elevations as "burial mounds" in his site description.

Curtiss also sketched numerous symbols within the enclosed site area north of the fence row, especially that portion west of the platform mound. Unfortunately, he does not discuss these particular notations in his letters or site notes, so the modern researcher is not sure if he is referring to the location of (house or burial) mounds, or stone-box graves. Curtiss writes that the area north of the fence row is a plowed field, an observation also made by Thruston. Thruston's map does not, however, denote the presence of any additional earthworks or graves north of the fence row.

The Curtiss and Thruston maps do illustrate a number of small "mounds" or "elevations" inside the palisade line south of the fence row. Their observations, as one might guess by now, vary considerably on both the number and location of these earthworks.

Curtiss identifies numerous earthworks and (most likely) stone-box graves within the enclosed site area south of the fence row. He describes this particular area as:

> this was there vilage or camping ground evidently as there are circles and small mounds attached to them and there are graves in several of those mounds joining the circles and some on the rim or edge of the circles all of which I opened and explored. (see Appendix H; Curtiss to Putnam, December ?, 1878)

Curtiss illustrates 16 of these circles with square or rectangular (mounds) attached to them. There does not appear to be an organized pattern to these site features. Several occur near the center area, with the vast majority clustered within the northwest corner formed by the intersection of the palisade line and fence row. Curtiss does not really offer an interpretation of these various circles and mounds other than to indicate they occur within the village/camping area and have graves associated with some of them. The circles and mounds noted on the Curtiss map likely include a number of the specific domestic structures (and in some cases small burial plots) excavated in December 1878. In addition, the numerous tick marks within the central and east sections of the enclosed area probably represent many of the individual stone-box graves dug during the same time period.

On the other hand, Thruston describes a "hierarchy" of burial mounds (small elevations) and house mounds (low mounds, ancient dwellings) established in an orderly fashion within the enclosed site area south of the fence row.

> The small elevations represented on the plan are burial mounds, with stone graves radiating from the center. The mounds next in size were probably formed by the debris of the ancient dwellings. They are circular or elliptical in form, averaging about thirty feet in diameter, with the remains of burnt clay or ancient fire hearths in the center. (Thruston 1897:33)

The Thruston map presents the appearance of a planned town, with three burial mounds somewhat evenly spaced across the site area. Six of the eight house mounds appear

precisely distributed along the southern palisade line. Two additional house mounds occur just south of the intersection of the east-side palisade line and fence row. No formal cemetery or isolated grave plots are included on the Thruston map.

A palisade line with regularly spaced bastions appears on both the Curtiss and Thruston maps. The Curtiss sketch map presents a complete outline of the palisade perimeter and bastions, with an estimated enclosed area of 15 acres. In comparison, the Thruston map has the entire palisade line, but only that portion of the palisade route with bastions south of the fence row. Thruston indicates the entire palisade line circumference is 3100 feet, and encloses an area of 14 acres.

One substantial difference between these maps is the number of bastions represented along the palisade line south of the fence row. The Thruston map has over twice as many bastions (16) along the southern palisade wall as the Curtiss map (7). This difference is curious since both maps were likely drawn within a period of ten to twelve years.

The Curtiss and Thruston maps, while antiquarian in design, represent valuable (albeit limited) glimpses of the Rutherford-Kizer site plan prior to changes from recent destructive activities. Some people openly question and criticize the motives that generated these particular maps. No one argues that the incentive for digging this site during the 1800s was anything but an effort to acquire nice artifacts; and by today's standards that particular research goal certainly does not hold up. However, the fact that the 1878 Curtiss investigation was recorded at all is, in both editors' opinion, a testament to F. W. Putnam and the Peabody Museum, as well as a major coup for the modern archaeological community. The results of the 1993–1995 investigations are much easier to understand and interpret given the benefit of these early site descriptions.

Modern Observations of the Rutherford-Kizer Site Plan

Site Area North of the Fence Row

As discussed in the previous section, the early work at Rutherford-Kizer was focused upon the site area south of the fence row. The 1993–1995 investigations also concentrated exclusively on the site area south of the fence row. As a result, the site area north of the fence row remains as poorly understood today is it was over 100 years ago.

The Division of Archaeology did not survey or test the northern site area during the 1993–1995 investigations. The landowner did not appear amenable to archaeology, and the issue was not pursued at the time due to the abundance of work at hand in the southern area. Visual inspections of the northern area (in pasture at the time) from the fence row were constant, although not particularly effective in the positive identification of earthworks and other site features. Numerous possibilities were noted for investigation at some future date.

Undoubtedly the most significant change to the northern site area was the removal of the large platform mound for fill dirt in 1965. Although several local residents indicate they

observed or knew of the mound destruction, none could report anything of interest about the removal. The dismantling of the platform mound represents a truly critical archaeological loss. No opportunity exists to answer insightful questions regarding the sequence (and associated dates) of mound construction. There is a remote chance that the mound base was not completely destroyed by the earthmoving action. This possibility cannot be accurately assessed without the benefit of future archaeological testing. An initial date of mound construction activity could potentially be acquired should the mound base still exist. This date would be extremely important for evaluating our current understanding of the Rutherford-Kizer site development, as well as mound construction activity during the Dowd and Thruston phases within the Middle Cumberland River valley.

Site Area South of the Fence Row

Recent work at Rutherford-Kizer focused completely on the site area south of the fence row. Test explorations (1993) and later salvage excavations (1994 and 1995) exposed a variety of site features, including palisades with bastions, mound remnants, domestic structures, refuse-filled pits, and human burials.

The palisade trench comprises the most extensive site feature uncovered during the modern work. Virtually the entire route along the west side was mapped, as were several small sections within the east area. As expected, this trench generally follows the course established on the Curtiss and Thruston site maps. However, the palisade trench does exhibit a rather gentle curve along the western side, which more closely follows the path illustrated on the Curtiss map. In contrast, the Thruston map depicts the southwest (and southeast) corner with a much sharper angle than was actually recorded.

Somewhat unexpected was an observation that the number and location of exposed bastions also follows the site plan drawn by Curtiss. The location of the two bastions recorded within the southwest site area during the 1993–1995 work do not favorably compare with the Thruston map (the Thruston map displays over twice as many bastions as the Curtiss sketch map). This fact seems a bit odd since Curtiss is believed to have sketched his map from memory, whereas the Thruston map was generated from the results of a more formal survey.

The modern investigation results confirmed the earlier accounts of burial mounds within the site area enclosed by the palisade trench. Two such mounds were positively identified during the 1994 burial removal. One mound remnant, with possibly two tiers of stone-boxes still intact, was partially exposed by consulting archaeologists (summer 1994) in what is now the south-central portion of the large greenspace. This particular mound may correspond with the middle burial mound noted on the Thruston map.

Discovery of a second burial mound was made within the southwest (lot 76) site area during the fall 1994 burial removal. An isolated cluster of 19 stone-box graves (Burials 45–51, 53–64) just north of the palisade trench defined this mound (see Figure 23). Curtiss sketched several “circles with attached mounds” within this general area on his site map, but nothing specifically adjacent to this part of the palisade line. The Thruston map, however, does have

two “low mounds” near the southwest corner of the palisade line. It is very possible that one of these “low mounds” represents the burial mound uncovered and removed in lot 76.

Excavations inside the palisade line exposed a number of domestic residences, as well as a probable elite or special purpose structure. Curtiss did not provide any information about native houses in his site description (to be blunt, he was focused upon the burials). He did inadvertently indicate their presence through his map location of the circles with attached mounds. Thruston was a bit more informative, as he stated:

> The mounds next in size were probably formed by the debris of the ancient dwellings. They are circular or elliptical in form, averaging about thirty feet in diameter, with the remains of burnt clay or ancient fire hearths in the center. (Thruston 1897:33)

Thruston’s reference to circular structures promulgates an erroneous claim made by other early archaeologists working in the study area (Myer 1928; Putnam 1878). This interpretation of circular structures for the Rutherford-Kizer site was easily proved false, as all of the structures uncovered during the 1993–1995 work were square (see Section IV). Thruston, like others before and after him, interpreted the structures as circular based upon their surface appearance rather than careful archaeological excavation (Moore and Breitburg 1998). Archaeological research conducted since Thruston has confirmed that the classic pattern for Mississippian period houses within the Middle Cumberland study area is square, or square with rounded corners (Barker and Kline 2013; Broster 1972; Jones 1999; Moore 2005; Norton and Broster 2004; Smith and Moore 1994; Steere and Deter-Wolf 2013).

Several of the 1993–1995 structures can be tentatively compared with notations on the Curtiss and Thruston maps. For example, the possible elite or special purpose Structure 1 exposed in Strip Block B may actually comprise one of Thruston’s “low mounds” displayed within the east site area near the fence row. There are no earthwork notations within the east site area on the Curtiss map. However, Curtiss sketched numerous “circles” within the west site area, especially along the fence row. Many of these “circles” favorably compare with the locations of Structures 2, 3, 4, 5, 6, and 11. Whether or not any of these structures were among the actual notations of Curtiss remains a problematic issue.

One site feature not shown on the early maps, but encountered during the 1994 burial removal, was a second palisade line along the entire length of the western site area. This second palisade (of post construction with bastions) occurs well inside the palisade trench. The route of this second palisade extends south-southwest from the fence row in the northwest corner of the large greenspace through the east side of lot 74 and west side of lot 75. At the west corner of lots 75 and 76, the line turns southeast and overlaps the palisade trench near the center of lot 76. The route beyond this overlap will remain unknown due to extensive earthmoving activity without the benefit of monitoring by Division personnel.

Prior to the 1993 reconnaissance and test investigations, Division personnel noted a cluster of stone-box graves on top of a gently sloping knoll along the southeastern edge of the reported site boundary. Results from the 1993 work determined this cluster was in fact a formal cemetery that was established well outside the primary site area. This cemetery, roughly 70

meters southeast of the palisade trench, comprised the southernmost extent of site activity during the Mississippian period. The density of stone-box burials on this knoll led to the establishment of the small greenspace area. During the summer of 1995, the Division of Archaeology removed 25 graves from a construction lot (lot 85) along the northern portion of this cemetery. These remains were removed (and later reburied in the large greenspace) under the court order previously issued in 1994.

Curtiss labeled this knoll location on his sketch map as "graves". He dug 14 graves in this area "outside the enclosure" according to his field notes. A careful review of his notes found he actually dug 15 graves, as he entered two separate (and different) descriptions for the 13th grave. As mentioned before, Thruston did not include this cemetery on his site map or in the text of his site description.

In closing, one must keep in mind that the salvage method of excavation employed during the 1994 burial removal fostered an uneven inquiry of the exposed features. Some areas were carefully examined and meticulously mapped by the Division of Archaeology. These sections include the middle one-third of lot 74, the southern margin of lot 75, most of lot 76, and the western palisade trench route. Other tracts (specifically the early subdivision road cut, the northern one-third of lot 74, and virtually all of lots 77–80) were subjected to destructive earthmoving activity with minimal, if any, monitoring by Division personnel. This sporadic recovery of meticulous site information hampered our ability to make more precise comparisons between the early map notations of Curtiss and Thruston with the modern excavation results.

Settlement and Subsistence at the Rutherford-Kizer Site

Archaeological investigations from September 1993 through September 1995 yielded evidence of long-term (although not necessarily continuous) use of the Rutherford-Kizer site area. The most intensive site occupation was undoubtedly during the Mississippian period. Artifactual material representative of the Early Archaic through possibly Late Woodland periods was also recovered. Unfortunately, most of these earlier artifacts were retrieved from the site surface or other disturbed contexts. Middle Woodland pits along the southeast site knoll (lot 85 area) comprised the only non-Mississippian features identified during the modern excavations.

Site Use Prior to the Mississippian Period

The recovery of three Kirk Corner-Notched projectile points supports an Early Archaic presence at the site area. Two of these points were among the items retrieved during numerous surface collections by Division personnel. A third point came from the fill of a large Mississippian pit (Feature 36) in Strip Block B. Early Archaic use of the site appears to have been fleeting, either as a temporary camp or possibly tool refurbishing station during hunting forays.

Ephemeral use of the site area continued through the Middle to Late Archaic periods based on the limited presence of several projectile point styles. Two basal-notched (Eva-like) dart points were recovered from disturbed contexts, one from a ground-hog burrow (Feature

14) in Strip Block B, and the other from the fill of a stone-box grave (Burial 70) on the southeast site knoll. In addition, two Benton points were collected from the site surface. The only definite Late Archaic point from the site was a Cotaco Creek dart from the surface of Strip Block B. From these limited examples, the site area appears to have continued as a temporary refuge for individuals or small hunting parties in search of game.

Our understanding of the entire Woodland sequence within the study area is considerably lacking at this time. However, the transition between the Late Archaic to Early Woodland periods at Rutherford-Kizer appears to have been a time of continued, (and possibly increasing) site use as a hunting camp. Five Motley points were recovered across the site area, including one from a partially excavated pit (Feature 880, lot 75) on the west side, and another from a large refuse-filled pit (Feature 101, Strip Block B) along the eastern border. Both of these features, it should be noted, contained an overwhelming amount of Mississippian period refuse. One Adena dart point was found on the southeast site knoll, albeit from the surface. This knoll surface also yielded two Turkey-tail points.

A cluster of Middle Woodland period pits (Features 738–741) were exposed on top of the southeast site knoll during the (lot 85) 1995 burial removal. They contained a rather sparse assemblage of limestone-tempered and grit-tempered sherds, deer and large mammal bone fragments, and lithic debris of local origin. A few Mississippian sherds were also present in the feature fill, but these likely originated from the stone-box cemetery established on top of the features. Charred wood from Feature 738 yielded a corrected radiocarbon date (at 2-sigma) of AD 619–874. In addition to these pits, a moderate sample of Middle Woodland projectile points was recovered from the site area, including 13 moderate-size triangular points (similar to McFarland and possibly Copena) and two Bakers Creek dart points. Most of these points originated from the eastern site surface (Strip Block B). One moderate-size triangular point was recovered near the western boundary (Feature 880, lot 75). In addition, one of the Bakers Creek points was found on the southeast knoll surface.

It is obvious that Middle Woodland groups were using the southern site area (especially the southeast knoll) as a hunting base camp rather than a temporary refuge. Although these people were far from sedentary, site occupations of several days to several weeks duration can be estimated given their need to bring (or make) ceramic vessels to store consumable resources. Hunting activity was a primary focus of the inhabitants, as at least one deer was consumed on the southeast knoll. A related site activity was the manufacture or maintenance of stone tools. The residents used locally available resources to make their projectile points and other tools. Other than the charred wood sample used to date Feature 738, no other floral resources (nutshell, seeds, etc.) were recovered from the feature cluster. No other evidence exists to suggest the occupants were gardening or gathering plant resources during their stay.

Feature 738 remains an intriguing Middle Woodland find that brings up more questions than answers. The possible uses of this large, partially-lined, and extensively burned pit range from roasting large game, to possibly cremating human bodies. No faunal remains (animal or human) were recovered from the pit fill. Given the contents of the other pits within this cluster, the easy answer would be that this feature was used to roast deer and other large mammals.

However, the lack of human remains does not preclude the use of this pit as a crematorium (Butler 1977, 1979; Moore 2000). Feature 738 was certainly of sufficient size to accommodate an adult human body. The fact that this enormous pit was intentionally lined with limestone poses some food for thought. Unfortunately, the sparse lithic assemblage from this feature yielded no microcores, microblades, or other specialized tools to support the ritual preparation of the dead for cremation (Odell 1994). In fact, no such technology was observed within the entire site lithic assemblage. At this time, the human activities associated with Feature 738 will have to remain in the realm of speculation.

A single Jacks Reef Pentagonal point collected from the site surface represents the only artifact within the 40SU15 assemblage that possibly dates to the Late Woodland period. This virtual absence of Late Woodland materials favorably compares with other site assemblages across the Middle Cumberland region. The lack of documented Late Woodland components within the study area has severely hampered our attempts to explain this apparent decline in population.

Site Use During the Mississippian Period

A chronological scheme for the Middle Cumberland Mississippian period was developed in the early 1990s that charted the established Mississippian society during its florescence (Smith 1992). Over the past decade, this initial chronology has been refined using the research results from large and small Mississippian site investigations across the study area (Moore and Breitburg 1998; Smith and Moore 1994, 1996c, 1999; see also Preface to the Digital Edition, this volume). These investigations have yielded insights into subtle temporal and spatial variations within the established study area populations. Unfortunately, the initial emergence and rapid decline of the Mississippian lifestyle throughout the Middle Cumberland region remain poorly understood (Smith and Moore 1994, 1996c). Despite the veritable explosion of Mississippian site data over the past decade, neither the beginning nor end of the Mississippian story can be satisfactorily told given the current base of excavated site information. With these parameters in mind, the Middle Cumberland Mississippian period remains divided into four phases:

1. **Emergent/early phase** (ca. AD 950–1050). As yet undesignated and very poorly defined;

2. **Dowd phase** (AD 1050–1250). Embodies the founding and growth of the majority of mound centers and towns;

3. **Thruston phase** (AD 1250–1450). Reflects a decline in the importance of regional centers and an analogous increase in nucleated, autonomous or semi-autonomous fortified towns and villages;

4. **Late prehistoric or protohistoric phase** (AD 1450–?). Also undesignated and poorly defined, reflects the dispersal of populations into farmsteads and the site-unit intrusion of displaced populations from the Ohio valley.

Mississippian use of the Rutherford-Kizer site area was likely established during the Dowd phase (AD 1050–1250) with the initial (platform) mound construction stage. As

mentioned earlier in this section, there is a remote possibility that the base of this (removed) platform mound may still be intact. Future work in the northern site area should definitely investigate the platform mound location to possibly substantiate (or disprove) that mound construction did in fact begin during the Dowd phase.

Evidence of a limited Dowd phase habitation within the southern site area was recovered. This habitation (of unknown area) could be affiliated in some way with the initial platform mound construction. A radiocarbon sample (Beta-70876) from a small, refuse-filled pit (Feature 15) in Strip Block B yielded a probable Dowd phase radiocarbon assay of AD 984–1205 (at 2-sigma). Mississippi Plain and Bell Plain ceramics, Madison projectile points, and a variety of faunal remains were among the artifacts recovered from this pit.

The vast majority of radiocarbon dates obtained during the 1993–1995 investigations firmly place the primary occupation at Rutherford-Kizer within the Thruston phase (AD 1250–1450). Of the fifteen samples submitted for radiocarbon assay, thirteen returned dates within the Thruston phase range (see Table 1). One sample obtained from a palisade bastion post (Feature 528) yielded a date range that essentially straddles the Dowd phase/Thruston phase boundary as currently defined. However, the other twelve samples produced calibrated results exclusively within the Thruston phase date range. These particular samples were derived from refuse-filled pits (Features 20, 26, 101), Structure 1 postholes (Features 34, 88, and 96), and palisade/bastion postholes (Features 708, 733, 832, and 867).

Five radiocarbon dates for the palisade lines are available for evaluation (see Table 1). Three dates are associated with the exterior (trench) palisade, with the other two from the interior (post) palisade. The exterior palisade yielded calibrated results (at 2-sigma) of AD 1297–1422 (bastion posthole), AD 1299–1449 (posthole) and AD 1307–1483 (bastion posthole). These three dates have a weighted average (at 2-sigma) of AD 1317–1432. In comparison, the interior palisade yielded calibrated results (at 2-sigma) of AD 1045–1383 and AD 1298–1436. These two dates have a weighted average (at 2-sigma) of AD 1261–1393. Although far from conclusive, these results hint that the exterior (trench) palisade may be of slightly later construction than the interior (post) palisade.

The eleven structures recorded between 1993 and 1995 comprise just a mere fraction of the total number of buildings that once stood within this town. Interestingly, structures of both simple post and wall trench construction were exposed during the course of the archaeological work (see Section IV). There was no chance to properly excavate these structures (or enough time to adequately record the exposed remains). Unfortunately, an excellent opportunity to investigate possible temporal (or societal) differences between simple post and wall trench construction techniques was lost in the search for human burials.

Structure 1 was the only building to receive some type of organized excavation effort. Excavated in 1993, this probable special purpose or elite structure (of simple post construction) displayed a generally square plan-view with walls measuring 7.0 to 7.5 meters long. Three charred wood samples obtained from exterior wall and interior postholes yielded consistent calibrated dates (at 2-sigma) of AD 1284–1403, AD 1298–1436, and AD 1298–1436.

The other ten structures were smaller in size than Structure 1, with walls ranging between 4.0 and 6.5 meters in length. No radiocarbon samples were submitted for analysis from these houses, primarily due to the destructive manner in which they were exposed. The simple post structures were squarish with rounded corners, whereas the wall trench structures were generally square with open corners. Several structures displayed the remnants of interior features (such as central support posts, hearths, or infant burials) commonly observed within other Mississippian period structures across the study area (e.g., Barker and Kline 2013; Moore and Breitburg 1998; Moore 2005; Norton and Broster 2004; Smith and Moore 1994).

Many of the 882 cultural features and 91 human burials exposed during the 1993–1995 work contained some cultural material. Virtually all of these features (except Features 738–742 recorded along the southeast knoll) are associated with the Mississippian occupation at Rutherford-Kizer. Three large, refuse-filled pits in Strip Block B (Features 20, 36, and 101) contained impressive assemblages of ceramics, lithics, animal bone, and charred floral remains. A total of five charred wood samples from these three pit features were submitted for radiocarbon assay (see Table 1). Feature 20 yielded calibrated results (at 2-sigma) of AD 1281–1414 and AD 1299–1426. One sample from Feature 36 provided a similar calibrated result (at 2-sigma) of AD 1286–1406. Feature 101 yielded calibrated results (at 2-sigma) of AD 1299–1426 and AD 1307–1483.

A substantial assemblage of Mississippian artifactual material was recovered from the Rutherford-Kizer features, burials, and site surface. These artifacts reflect the variety of actions by (and needs of) the town residents, and offer insights into their lifestyles and daily activities. As with all Mississippian sites within the study area, the ceramic assemblage is dominated by shell-tempered ware (over 99%). Mississippi Plain (*n*=7,313) accounts for over 75% of the shell-tempered sample, followed by Bell Plain with nearly 19% (*n*=1,835). These percentage results are very interesting when compared to other sites with substantial shell-tempered pottery assemblages (Table 24). For example, these results sharply contrast with the East Nashville Mounds (40DV4) and French Lick (40DV5) sites, as each reports over 90% Mississippi Plain and less than 0.5% Bell Plain (Walling *et al*. 2000). However, the 40SU15 results are similar to the Kelley's Battery, Old Town, and Gordontown sites (Jones 1999; Moore and Breitburg 1998; and Smith 1993b). The substantial percentage differences from 40DV4 and 40DV5 may be the result of sample limitations, as both of these site excavations were confined to narrow bridge approaches.

Table 24. Mississippi Plain and Bell Plain Counts and Assemblage Percentages from Selected Middle Cumberland Mississippian Sites.

	Mississippi Plain		Bell Plain	
Site	**No.**	**%**	**No.**	**%**
Kelley's Battery (40DV392)	1,396	73.6	354	18.7
Rutherford-Kizer (40SU15)	7,313	75.3	1835	18.9
Old Town (40WM2)	527	79.5	100	15.1
Gordontown (40DV6)	4,806	81.1	722*	12.2
French Lick/Sulphur Dell (40DV5)	2,985	90.4	4	0.1
East Nashville Mounds (40DV4)	24,688	95.0	98	0.4

* excludes modeled/effigy counts

Kimmswick Fabric-Impressed (*n*=309) accounts for the majority of pan sherds recovered from Rutherford-Kizer. In fact, these sherds comprise nearly 75% of the total pan sample, and 3.2% of the shell-tempered assemblage. These pan percentage results favorably compare with some Thruston phase sites across the study area, but not so with others (Table 25). A relatively high percentage (8.7%) of the French Lick site ceramic assemblage was composed of Kimmswick Fabric Impressed sherds (Walling et al. 2000). However, the report authors attribute this high percentage to sample bias rather than a true measure of site resident use.

Kimmswick Plain pan sherds (*n*=13) are present at Rutherford-Kizer, but denote a meager 3.1% of the total pan sample and less than 1% of the shell-tempered assemblage. Recent research has suggested that plain pan use generally increases through time, with a corresponding decrease in fabric-impressed pans (Moore and Breitburg 1998; Smith 1993b; Walling et al. 2000). The results from Rutherford-Kizer are not supportive of this assertion, although the previously noted problems of sorting Kimmswick Plain from Mississippi Plain may be partly responsible for this outcome. Another factor contributing to this low percentage could be the category of Kimmswick Unidentified that was established to accommodate pan (mostly rim) sherds broken in such a manner that they could not be confidently assigned as either fabric-impressed or plain. These sherds (*n*=91) represent 22% of the total pan sample, or nearly 1% of the shell-tempered assemblage.

Table 25. Comparison of Pan Counts and Percentages from Selected Middle Cumberland Mississippian Sites.

	Kimmswick Fabric Impressed		Kimmswick Plain	
Site	**No.**	**%**	**No.**	**%**
Kelley's Battery (40DV392)	5	6.5	72	93.5
Gordontown (40DV6)	28	10.4	241	89.6
Old Town (40WM2)	4	30.8	9	69.2
Rutherford-Kizer (40SU15)	309	74.8	13	3.1
East Nashville Mounds (40DV4)	816	98.2	15	1.8
French Lick/Sulphur Dell (40DV5)	286	100.0	-	0.0

Shell-tempered specimens with decorative designs comprise about 1% of the total ceramic assemblage from Rutherford-Kizer. However, it is these particular sherds that peak our interest in assessing the similarities and differences with other Mississippian sites across the Middle Cumberland valley. The ever-present Matthews Incised represents the most abundant decorated (shell-tempered) ware at Rutherford-Kizer. Nearly all of these specimens derive from jars. Two varieties (*Matthews* and *Manly*) occur within the assemblage retrieved during the 1993–1995 investigations. *Variety Matthews*, represented by single or double arches, is by far the most prolific style with 51 specimens (83.6% of the Matthews Incised sample) and 53% of the decorated shell-tempered sample. Two *variety Matthews* vessels (one jar and one bottle) attributed to Rutherford-Kizer are present in the Sumner County museum.

The relative abundance of *variety Matthews* at Rutherford-Kizer is in sharp contrast to several other Mississippian study area sites (Tables 36 and 37). For example, this particular variety is completely absent from the Gordontown (40DV6) and Old Town (40WM2) assemblages, and represents but a minute percentage at the Kelley's Battery (40DV392) site.

However, *variety Matthews* does comprise 67% of the Matthews Incised sample from East Nashville Mounds (40DV4), and 18% from French Lick (40DV5).

Sherds with single to multiple punctated arches, or a combination of incised arches with punctated arches are categorized as Matthews Incised, *variety Manly*. With 10 specimens, *variety Manly* comprises 16.4% of the Matthews Incised sample and 10% of the decorated shell-tempered sample at Rutherford-Kizer. *Variety Manly* generally constitutes the minority percentage of Matthews Incised ware recovered from Mississippian sites throughout the Middle Cumberland region (Tables 26 and 27).

A single Beckwith Incised rim sherd was recovered from a refuse-filled pit. The classification of rectilinear or curvilinear design elements into a separate type of Beckwith Incised deviates from the previous assignment of area specimens as Matthews Incised, *variety Beckwith* (see Section X). As seen in Tables 26 and 27, this incised style is minimally present at Rutherford-Kizer, but dominates the Kelley's Battery, Gordontown, and Old Town samples (Jones 1999; Moore and Breitburg 1998; Smith 1993b).

Table 26. Matthews Incised and Beckwith Incised Counts and Assemblage Percentages from Selected Middle Cumberland Mississippian Sites.

	----------Matthews Incised----------				Beckwith Incised*	
	variety Matthews		variety Manly			
Site	No.	%	No.	%	No.	%
Rutherford-Kizer (40SU15)	51	0.5	10	0.1	1	<0.1
East Nashville Mounds (40DV4)	53	0.2	20	<0.1	6	<0.1
Kelley's Battery (40DV392)	4	0.2	-	0.0	54	2.8
French Lick/Sulphur Dell (40DV5)	2	<0.1	3	<0.1	6	0.2
Gordontown (40DV6)	-	0.0	24	0.4	51	0.9
Old Town (40WM2)	-	0.0	-	0.0	22	3.3

* also classified as Matthews Incised, *variety Beckwith*

Two (individual) bowl rim sherds of Mound Place Incised, *variety Chickasawba* were recovered from Feature 101 in Strip Block B. Although rare, examples of this type have been noted for the Fewkes site (Myer 1928) and the general study area (Thruston 1897).

The presence of 24 negative painted sherds represents a total somewhat higher than expected based upon the low to non-existent counts from other area site reports. However, one unexpected (but useful) benefit from examining the Peabody Museum collections was a crash course in negative painted pottery. Negative painted sherds are rather distinct, with a compact paste, extremely fine shell temper, and unusual buff to light orange color. All of the Rutherford-Kizer specimens derive from bottles, including at least one carafe-neck and three hooded (owl effigy) vessels. Edwin Curtiss also obtained two negative painted, hooded effigy bottles (one human and one owl) during his 1878 explorations.

Other shell-tempered sherds recovered from the 1993–1995 excavations include six cordmarked and two check-stamped specimens that represent less than 1% of the Rutherford-Kizer ceramic assemblage. The (vertical) cordmarked sherds possibly comprise a local variant of the McKee Cordmarked type. Several of these cordmarked sherds were found in Feature 101,

and their presence denote a minor (and diminishing role) within the Thruston phase. Shell-tempered, cordmarked ware from the Middle Cumberland region has been recovered from 40DV68, a probable Dowd phase farmstead (Norton and Broster 2004), as well as from the Spencer (40DV91) and Sandbar Village (40DV36) sites (Smith and Moore 2012; Spears et al. 2008). Check-stamped sherds with shell-temper are rather rare for the study area, but have been recovered in very small amounts from other Mississippian sites (Smith and Moore 1996a; Spears et al. 2008).

Table 27. Dated Feature Contexts for Matthews Incised (*var Matthews* and *Manly*) and Beckwith Incised from Middle Cumberland Mississippian Sites.

Ceramic Type/Var	Site	Provenience	Uncorrected 14C Date	Calibrated* 14C Date	Date Reference
Matthews	40DV301	Structure 1	AD 1120 (830 +/- 80 BP)	AD 1031–1292	Tx-7001
Matthews	40DV4	Feature 57	AD 1310 (640 +/- 70 BP)	AD 1265–1424	Beta-61250
			AD 1040 (910 +/- 140 BP)	AD 859–1312	Tx-7866
Matthews	40DV4	Feature 24	AD 1400 (550 +/- 50 BP)	AD 1302–1439	Beta-61244
Matthews	40DV4	Feature 11	AD 1200 (750 +/- 70 BP)	AD 1157–1330	Beta-61242
			AD 1280 (670 +/- 60 BP)	AD 1256–1409	Tx-7855
Matthews	40SU15	Feature 36	AD 1320 (630 +/- 50 BP)	AD 1286–1406	Beta-70877
Matthews	40SU15	Feature 20	AD 1320 (630 +/- 60 BP)	AD 1281–1414	Beta-70874
			AD 1370 (580 +/- 50 BP)	AD 1299–1426	Beta-70875
Matthews	40SU15	Feature 101	AD 1370 (580 +/- 50 BP)	AD 1299–1426	Beta-70873
			AD 1450 (500 +/- 50 BP)	AD 1307–1483	Beta-70872
Manly	40SU15	Feature 36	AD 1320 (630 +/- 50 BP)	AD 1286–1406	Beta-70877
Manly	40SU15	Feature 101	AD 1370 (580 +/- 50 BP)	AD 1299–1426	Beta-70873
			AD 1450 (500 +/- 50 BP)	AD 1307–1483	Beta-70872
Beckwith	40WM2	Feature 1	AD 1190 (760 +/- 70 BP)	AD 1156–1328	Tx-7414
Beckwith	40DV4	Feature 11	AD 1200 (750 +/- 70 BP)	AD 1157–1330	Beta-61242
			AD 1280 (670 +/- 60 BP)	AD 1256–1409	Tx-7855
Beckwith	40DV6	Feature 23	AD 1310 (640 +/- 70 BP)	AD 1265–1424	Tx-5551
Beckwith	40DV6	Feature 25	AD 1430 (520 +/- 60 BP)	AD 1301–1477	Tx-5550

* CALIB 4.3, at 2-sigma (Stuiver et al. 2000)
Sources: Moore and Breitburg 1998; Smith 1993b; Smith *et al*. 1993; Walling et al. 2000

The (micaceous) sand tempered Lamar Plain and Lamar Complicated Stamped sherds comprise the only Mississippian wares at Rutherford-Kizer without shell-temper. Their presence provides explicit evidence of trade activity with societies to the southeast (north Georgia, in this case). These particular types have yet to be identified at other Middle Cumberland Mississippian sites.

As discussed earlier in this report, the identified vessel forms from these various ceramic types comprise jars, bowls, bottles, plates, and pans. These broad forms (along with their numerous variations) were obviously created for a broad range of processing, cooking, serving, storage, transport, and aesthetic needs. Moderate to large-size jars that display direct rims and flattened lips represent the most common vessel form observed at Rutherford-Kizer. Most of these vessels are globular to sub-globular, although two complete jars previously recovered from the site by Edwin Curtiss display lobed bodies (with six lobes). As mentioned earlier, such lobes may be an early stylized representation of the basic decorative motif that appears on jars, that is the incised and/or punctate arches along the vessel neck and shoulder (Matthews Incised, *varieties Matthews* and *Manly*). Strap and bifurcate lug handles dominate the

(identified) jar handle sample. Of substantial note, however, is that no loop or flattened loop handles have been recovered to date from Rutherford-Kizer jar forms.

Standard bowls comprise the most common bowl form, with constricted orifice and outslanting wall forms also present. Most structural or modeled effigy decorations (duck, fish, and frog) generally occur along or just below the bowl lip/rim. These decorations include such attributes as heads, eyes, noses/beaks, fins, legs, and tail lugs. Notched applique strips along or just below the lip comprise yet another decoration style.

The most identifiable bottle form from Rutherford-Kizer is the hooded (effigy) bottle. Blank-faced bottles with modeled (human) features on the side (ears?) and/or top (topknot, hair bun, helmet?) of the head comprise one sub-form. Examples of this sub-form have rather fine shell-temper pastes, and have been recovered from surface, feature (696) and grave (13, 1878 Curtiss excavation) contexts. A second (and much more common) hooded sub-form are the "full-figure" human and owl effigy bottles. These vessels display modified heads and bodies, and are often negative painted. Specimens of this sub-form have been found from a variety of contexts, including the site surface, features and burials.

The general plate form (displayed from sherds recovered during the 1993–1995 investigations) is a shallow vessel with a flat base and excurvate walls that break into a wide flaring form. These well-made (Bell Plain paste) vessels could be separated into two distinct variants: (1) vessels that display a rounded break between body and rim, and (2) vessels that exhibit a well-defined sharp break between body and rim. There is no evidence of negative painting on any of these specimens.

Sherds from large, shallow pans with flat or rounded bottoms are well-represented at Rutherford-Kizer. All pan specimens available for analysis come from the 1993–1995 investigations. Fabric-impressed exterior surfaces dominate the sample, with some plain surface examples also present. More than one fabric pattern is visible on some sherds. The impressions derive from fabrics that (are believed to have) lined the mold to help in removing the completed pan. Most of the pan sherds (whether fabric-impressed or plain surface) display a loosely compact paste with coarsely ground mussel shell temper. However, examples with paste containing more finely ground mussel shell (still Mississippi Plain paste, but much closer to Bell Plain) do occur. These finer temper specimens are generally thinner than those with coarse temper.

A small sample of "other ceramic" artifacts encompasses less than 1% of the total ceramic assemblage (see Table 16). Although limited in number, these items exemplify a broad range of social and individual activities that allows us to view the native residents in a more personal manner. For example, the vast majority of "other ceramic" artifacts from 40SU15 are disks manufactured from broken pottery sherds. These artifacts vary greatly in size, craftsmanship, and origin (plain surfaced, cordmarked, and fabric-impressed). Even though pottery disks occur at most other Middle Cumberland Mississippian sites, their function continues to elude us. Our best guess at the present time is that these disks comprise gaming

and/or gambling pieces. Given this interpretation, these disks denote a physical aspect of a larger, more dynamic social activity.

Of considerable intrigue, however, are the (abstract "face-shape" and owl?) pendants recovered from the (1993) eastern site area investigations. These objects, although obviously personal adornments, may have also denoted something special to (or about) the person who wore them. The images represented on the pendants could reflect a spiritual guide or companion, or possibly serve as a societal (clan?) marker.

Mississippian stone tools from Rutherford-Kizer primarily reflect hunting and wood-working activities. Numerous small, triangular projectile points support the importance of hunting such game as deer, bear, and turkey. The vast majority of these points are made from locally available cherts. Of some interest is the minimal presence of butchering and hide-working tools (knives and scrapers) in the lithic assemblage. On the other hand, a substantial sample of wood working tools (chisels and celts) is present. Most (84%) of the chisels are manufactured from non-local Dover chert, with 63% of the celts made of greenstone. Obviously construction of the palisade wall and bastions required substantial amounts of wood, as did the continuous building (and repair) of residential structures.

Clearing of trees for settlement and farming needs was also an important activity. However, one glaring absence in this lithic assemblage is the total absence of farming implements (hoes). Town residents obviously had access to Dover chert tools, based on the extremely high percentage of chisels made of Dover chert. Even if the residents did not have access to Dover chert hoes (this is highly unlikely given the nature of the site), no implements of locally available material were recovered either. There are several possible explanations for this total absence. One is that the residents used wooden digging sticks to maintain their crops, rather than formal stone hoes. Such implements would not be visible in the archaeological record. A second possibility is that farming activities were based from farmsteads or field stations outside the town, and that the farming equipment (such as stone hoes) stayed at these locales.

The 1993–1995 excavations also yielded a moderate sample of abrasive siltstone and limestone disks. Although not as numerous as the ceramic disks, these stone disks are circular in plan-view and vary in diameter, thickness, and quality of craftsmanship. Many of these specimens are likely gaming or gambling pieces similar to the interpretation for ceramic disks. Two discoidals from the site area comprise additional evidence for gaming activity. However, one (relatively large) disk from Feature 101 displayed a central drilled hole and has been classified as a spindle whorl (see Figure 53). Several other stone disks display partial holes in their center, and may comprise as yet unfinished spindle whorls.

Other stone tools and artifacts associated with the Mississippian occupation at Rutherford-Kizer include drills, beads, gorget fragments, manos, metates, abraders, hammerstones, and assorted unidentified groundstone items. Flakes (including rejuvenation) and blocky debris from the manufacture and maintenance of stone tools comprise a substantial

portion of the lithic assemblage. Other items associated with the manufacturing process, such as tested cobbles, cores, and bifaces are also present.

An overwhelming percentage (96%) of the 40SU15 lithic assemblage originates from locally available sources. Cherts from the Ft. Payne and St. Louis Formations represent the primary resources used by site residents. A small amount of Warsaw Formation chert (from just north of the site area) is also present. Waterworn cortex visible on numerous assemblage specimens suggests these cherts were obtained from nearby streambeds rather than quarried. Other local resources used to manufacture stone tools include abrasive siltstone and limestone.

Non-local lithic materials at Rutherford-Kizer include Dover chert, Burlington chert, and greenstone. These resources originate from far away areas, and their presence denotes site participation in a robust trade network. Dover chert represents a widely distributed material that outcrops in Stewart County about 110 km west of Rutherford-Kizer. Burlington chert originates from the Central Mississippi Valley region of Illinois and Missouri some 350 km northwest of the study area. Greenstone derives from the Appalachian Mountain chain, with one outcrop identified 220 km southeast of 40SU15. Siltstone derives from the Highland Rim physiographic province immediately east of the study area.

Calcite/fluorite, mica, galena, graphite, quartz, and hematite comprise mineral resources found at Rutherford-Kizer. Calcite/fluorite and galena are probable local materials, whereas the remaining minerals are considered of non-local origin. Mica and graphite originate east of the study area in extreme east Tennessee and North Carolina. Hematite also originates outside the study area, although within the somewhat closer Highland Rim physiographic province. Quartz crystals are often thought to come from Arkansas, but the small size of the 40SU15 specimen makes this determination somewhat problematic.

Residents of Rutherford-Kizer ate and/or utilized a substantial variety of local mammal, bird, reptile, amphibian, and fish species. Analysis of the faunal material recovered from the 1993–1995 investigations revealed a heavy reliance on animal species taken within or along forest edges and open forest habitats (primarily white-tailed deer). Other significant sources of meat from this site area habitat include wapiti and turkey. The recovery of black bear signifies resident forays into the rugged forest uplands of the Highland Rim. Other species obtained from these adjacent uplands include gray squirrel, passenger pigeon, and box turtle. Numerous aquatic/riparian species (easily obtained from nearby Drakes Creek and the Cumberland River) are present in the faunal assemblage, such as beaver, muskrat, duck, and assorted turtles and fish. Despite this variety, these aquatic/riparian species comprise a very small percentage of the total meat yield.

Bone tools from the 1993–1995 site investigations, although somewhat limited in number, denote actions other than those necessary for dietary needs. Deer, turkey, and bear bone awls were used to punch holes in hides and other materials. Two elaborate hairpin sections represent personal adornments, as might the scored and polished raccoon canine (pendant). In addition to these excavated specimens, a private collector noted two copper-coated canines (probably bear) with drilled holes (from a private collection) as coming from the

site. Also, the Sumner County Museum currently displays a (single piece) fishhook reported to come from 40SU15.

A variety of trees, nuts, wild fruits and seeds, and cultivated plants were present in the charred floral remains recovered from the 1993–1995 work. The thirteen separate tree species indicates that town residents were utilizing a broad range of bottomland and upland resources. Black locust/osage orange trees were definitely harvested as posts for the exterior (trench) palisade, and probably residential structures as well. Hickory and oak specimens were retrieved from many features, and represent important sources of fuel as well as posts for residential structures. An important component in constructing structural walls was cane.

Hickory nuts are abundant in the floral sample, with black walnuts present in somewhat smaller amounts. In contrast, wild fruits and seeds (persimmon, cherry, and honey locust) are minimally represented. All of these resources represent seasonally (late summer and fall) gathered resources from the surrounding bottomlands and uplands.

Maize represents the staple food product for Middle Cumberland Mississippian groups. This cultigen is commonly recovered from Mississippian sites across the study area (Barker and Kline 2013; Jones 1999; Moore and Breitburg 1998; Moore 2005; Smith 1992; Walling et al. 2000). Rutherford-Kizer is no exception, with a moderate sample of cob sections, cob fragments, cupules, and kernels from feature contexts. Eight, ten, and twelve row specimens are present in the sample.

A second cultigen, cultivated bean, is also present at Rutherford-Kizer. This particular resource is not well represented at Mississippian sites throughout the study area. However, this relative absence may be in part due to a bias in past recovery techniques, since beans have been recently identified from the Kellytown (40WM10) and Kelley's Battery (40DV392) site excavations (Barker, personal communication, 2001; Jones 1999). The 40SU15 sample consists of two bean fragments recovered from Feature 20, a large pit feature with radiocarbon date ranges (corrected at 2-sigma) of AD 1281–1414 and AD 1299–1426.

A moderate sample of marine shell objects has been recovered from Rutherford-Kizer, including gorgets, earplugs, and beads. Importation and commodity production of raw marine shell (from the Gulf Coast region) appears to have been limited to the Thruston phase (Smith and Moore 1999). Of the eight gorgets acquired by Edwin Curtiss during his 1878 excavation, seven are Nashville style. The eighth specimen is a Cox Mound style. These artifacts likely comprise personal adornment items worn as objects of wealth rather than symbols of status (Smith and Moore 1999). Of considerable interest is a ninth marine shell gorget reported to have come from 40SU15 (see Section XI). The style of this particular gorget (Cartersville) is completely different than any gorget previously known from the Middle Cumberland region, thus its recovery from Rutherford-Kizer may be in error. However, the reported connection of this specimen style with the Etowah site does blend well with the previously mentioned (north Georgia) Lamar Plain and Lamar Complicated Stamped sherds.

The three copper objects recovered by Edwin Curtiss are also thought to be wealth items rather than status symbols. Of particular intrigue is the copper-coated cedar disk and

bison horn core object (see Figure 89). This unique artifact is the only one of its kind reported for the Middle Cumberland study area. Unfortunately, the source of the copper (Great Lakes or Appalachian Mountains) used to cover the disk cannot be accurately assessed at this time. The bison horn core portion of this artifact is unique as no other Mississippian artifacts made from bison have been recorded in the study area. Since bison has yet to be identified as part of any prehistoric faunal assemblage within the study area, this material is believed to represent a trade material from the west or northwest.

No objects of authority or status were recovered in indisputable context during the 1878 or 1993–1995 excavations at Rutherford-Kizer. One possible association, although it is questionable whether or not this artifact even comes from the site area, is a mace of Dover chert from the Thruston collection (see Section XI). This artifact is not reported to have come from 40SU15, but a farm adjacent to the Saundersville site (Rutherford-Kizer is often referred to in the earlier literature as the fortified village near Saundersville).

Analyses of the 40SU15 skeletal remains (removed in 1994 and 1995) generally support the current premise that Middle Cumberland Mississippian groups lived under stressful conditions. Previous research suggests these people lived in crowded towns, with unclean living conditions that encouraged infectious diseases (such as tuberculosis) to develop as an endemic condition (Moore and Breitburg 1998). Combined with these squalid conditions is an over-reliance on maize that contributes to the overall poor health of these populations (Buikstra et al. 1988). One telling statistic from Rutherford-Kizer is the 34% mortality rate of children under four years of age. This outcome favorably compares with results from other study area Mississippian sites (Moore et al. 2006).

Current Assessment of Study Area Mississippian Sites

Construction activity within the southern Rutherford-Kizer site area has illustrated the all too common effect of “progress” on Mississippian period mound centers and towns within the Middle Cumberland study area (Barker and Kline 2013; Benthall 1983, 1987; Broster 1972; Dowd 1972, 1974; Ferguson 1972; Jones 1999; Klippel and Bass 1984; Miller 1987; Moore 2005; Moore and Breitburg 1998; Moore et al. 2006; Smith and Moore 1996a; Smith et al. 1993; Taylor et al. 1990; TDOA 1996; Walling et al. 2000). Today, the threat of destruction facing these sites looms very high as people continue to move further away from established urban boundaries into more rural settings. The numerous urban expansion projects and suburban subdivision developments currently underway across middle Tennessee (and in particular the Middle Cumberland area) has put many such archaeological sites at risk. By their very nature, Mississippian mound centers and towns tend to cover a large area of desirable land (generally 11 to 15 acres). Given the ever-increasing demand for buildable land by developers and speculators, the likelihood of destroying these particular Mississippian resources is substantial indeed.

Many people are under the misguided impression that all Mississippian mound centers and towns within the study area have been identified. We know from recent experience within the Nashville area that this statement could not be further from the truth. For example, the

1997 construction of a new Brentwood city library (just south of Nashville) exposed a previously unrecorded Mississippian town (40WM210). This Thruston phase (AD 1250–1450) town yielded two palisade lines, numerous domestic structures, and abundant human burials (Moore 2005). Unbelievably, this substantial site had remained completely undetected despite earlier archaeological excavations within the general area (Broster 1972; Myer 1928; Stallings and Ross-Stallings 1997; Stallings et al. 1999). Some time after the 1997 work, research at Harvard University discovered notes and artifacts from a previous 1882 excavation conducted by Peabody Museum-sponsored personnel (Moore and Smith 2009).

Another example was the Mississippian town (40SU61) exposed within the boundaries of the Moss-Wright Park in Goodlettsville. Previous archaeological research within the park had identified and removed 106 human burials from a burial mound prior to construction of a softball complex (Benthall 1987). A 1996 proposal to expand this complex resulted in an archaeological exploration of the adjacent tract of land. This excavation exposed a huge, previously unidentified Mississippian town with multiple palisade lines, at least one platform mound, vast numbers of structures, and human burials. Fortunately, the proposed expansion project was postponed after limited consultant and state investigations (TDOA 1996).

Two additional Mississippian towns within the Nashville area (40DV392 and 40WM10) had been previously recorded within the state site files as small stone-box cemeteries. It wasn't until these sites were threatened by construction activity that their true nature as large Mississippian towns was discovered. Site 40DV392 (known as both the Kelley's Battery or Wal-Mart site) had been first recorded in 1990 as a Civil War site with a small stone-box cemetery. Construction activity associated with a proposed Wal-Mart and Lowe's complex led to an archaeological excavation that uncovered the actual extent of the site area (Jones 1999). The other example, site 40WM10 (Kellytown), was initially recorded in 1972 as the location of stone-box graves and "possible huts". Road widening efforts by the Tennessee Department of Transportation (TDOT) initiated in 1997 included an archaeological investigation that determined 40WM10 was actually a substantial town with multiple palisades, domestic structures, and human burials (Barker and Kline 2013). This road-widening project was suspended for two years due to a precedent-setting legal battle between Native American representatives and the TDOT.

The potential for discovery and subsequent destruction of previously unidentified large-scale Mississippian sites is very real. However, several well-known Mississippian mound centers or towns have been impacted by recent construction activity as well. The Fewkes site (40WW1) represents a landmark mound center in Brentwood (just south of Nashville) that has been in private ownership for many years. A representative of the Smithsonian Museum excavated four of the five mounds in 1920 (Myer 1928). Until the late 1990s, the site area had remained in relatively good condition due to protective measures by the landowner. TDOT expansion of the adjacent road in 1998 required an archaeological excavation of the proposed impact area (Dicks 1997), which exposed a palisade line in addition to domestic structures, pit features, and human burials. While an examination of selected faunal material from the site has been published (Peres 2010), no formal report on the overall excavation project has been completed. Fortunately, in 2003 the City of Brentwood acquired the primary mound area and adjacent 19th

century Boiling Springs Academy to preserve as an interpretive park (Primm Park) for future generations to visit and enjoy (Smith and Hogan 2004).

Another well-known site, the Brick Church Pike Mound (40DV39), has not received the same protection as that noted for the Fewkes site. Numerous individuals (professional as well as avocational) have dug this site since the 19th century in search of relics (Dowd 1974). Regrettably, the platform mound suffered major damage from bulldozer action, first in 1971 as a source for fill dirt, and again in 1983 when it was completely demolished (apparently for spite). Also, a church built in 1972 obliterated portions of the habitation area. Very little (if any) of the site exists today, as the last vestiges were recently destroyed by subdivision construction (Barker and Kuttruff 2010).

The Fisher-Reames site (also known as Gray's Farm, 40WM11) represents another mound center disturbed by past subdivision construction. Established on the Harpeth River near Franklin, this site remains in private ownership but has not received the same kind of attention from the public as other, more visible sites. Personnel sponsored by the Peabody Museum at Harvard University extensively explored this site during the late 19th century, but the results of this work have yet to be analyzed (Moore and Smith 2009). Subdivision construction in the 1970s destroyed a portion of the habitation area, and a road was cut through a platform mound. A portion of this same mound remnant was subjected to core drilling action during the year 2000. At this time, no construction activity has been initiated as a result of that drilling. Unfortunately, the boundaries of this mound center have yet to be accurately defined, and a formal archaeological testing program will be necessary to determine how much of this site remains intact.

Just upstream from 40WM11 lies another mound center in private ownership known as Old Town (40WM2). Dr. Joseph Jones excavated several mounds and dug numerous burials at this site during the late 1860s (Jones 1876). Edwin Curtiss conducted a brief exploration in 1878 (Smith and Moore 2009). The most recent landowners have protected this mound center from unauthorized digging by relic collectors. Small portions of the general site area have been subjected to such modern disturbances as water lines and building renovations (Smith 1993b). However, the overall site area appears to be in good shape.

Castalian Springs (40SU14) comprises a sizable mound center mentioned in some of the earliest historic accounts of middle Tennessee (Haywood 1823; Myer 1924). Located on Lick Creek in southeast Sumner County, this site was the focus of several early investigations by antiquarian archaeologists. William E. Myer provides some documentation of his excavations at this site between 1891 and 1916 (Myer 1894, 1924). In a stroke of good fortune, the future of this prehistoric mound center was saved despite the previously noted pressures of urban expansion into rural areas. In 2005 the State of Tennessee acquired the tract of land that includes the Castalian Springs site area. A long-term excavation project was immediately initiated by Middle Tennessee State University, which conducted archaeological field schools at the site annually from 2005 through 2011. This effort included testing designed to further evaluate the Myer results, as well as uncover new information about the site features and activities. Analysis of the recovered artifacts and information is on-going, but to date the results

have yielded a substantially revised understanding of the intrasite settlement pattern as well as site activities (Hodge et al. 2010; Moore et al. 2014; Smith and Beahm 2011; Smith et al. 2012).

Gordontown (40DV6), an upland mound center in southern Davidson County, has been the focus of several archaeological explorations over the past 125 years (Moore et al. 2006; Myer 1928). Recent salvage work by the Division of Archaeology in 1985–1986 was conducted to retrieve site information prior to construction of a residential subdivision (Moore and Breitburg 1998). Although a significant percentage of the site was destroyed by earthmoving activities, the developer did convert several house lots into greenspace zones in order to avoid high density clusters of stone-box graves.

Travellers Rest (40DV11) may be best known as the plantation home of Judge John Overton, one of Tennessee's most important historical figures. Today, the Travellers Rest site is owned and operated as a tourism attraction by the National Society of the Colonial Dames of America in Tennessee. Within the confines of this plantation, however, lies a portion of a fortified Mississippian period town. The site area has been partially disturbed by early and recent construction projects, as well as several early archaeological explorations (Miller 1987; Moore and Smith 2009; Putnam 1878). Despite these previous intrusive actions, a part of the site area remains intact for future generations to enjoy.

Several additional Mississippian sites within the study area are currently protected under state or corporate ownership. Mound Bottom (40CH8) and Sellars Farm (40WI1) comprise two Mississippian period mound centers purchased by the State of Tennessee during the 1970s. Both sites have been the focus of previous archaeological investigations (Butler 1981; Cox 1926; Jones 1876; Moore and Smith 2009; Moore et al. 2006, 2016; Myer 1922, 1923; O'Brien and Kuttruff 2012; Putnam 1878, 1882). Since their purchase by the state, these sites have been land-banked for the purposes of preservation and occasional archaeological study.

The Pack site (40CH1) represents another Mississippian mound center established roughly one-mile up the Harpeth River from Mound Bottom (Moore et al. 2016). Although Pack and Mound Bottom are generally recognized as contemporaneous, their relationship has yet to be confidently defined. Most of the Pack site is in private ownership and remains rather well protected to date. Nevertheless, the site's future is somewhat hard to predict. Time will tell if the State of Tennessee or an unknown conservancy group will be able to acquire and preserve any portion of the Pack site, or if this mound center will become the victim of yet another housing subdivision or commercial endeavor.

Concluding Statement

This report has provided basic descriptive information concerning the Rutherford-Kizer site and its inhabitants during the Mississippian florescence within the Middle Cumberland region. From the available information, we know that by AD 1350–1400, Rutherford-Kizer was an imposing presence on the physical landscape. A visitor to this area would have viewed a substantial fortified town set along a low upland ridge overlooking Drakes Creek. The town wall

enclosed an active settlement approximately 14 to 15 acres in size, including one large platform mound and several other low structural mounds. The large platform mound may have had a structure on top, although we believe the significance of this particular mound was of greater importance to previous generations. On top of the lower mounds would have been squarish structures for the town leaders and elite residents. Additional mounds visible within the town walls contained the remains of deceased residents (primarily adult). Also visible within the town walls were numerous square structures that housed the majority of town residents. Outside of the town wall, along an isolated knoll to the southeast, was the formal cemetery for many child and adult residents.

In conclusion, as with most research reports, there are information gaps that can be rectified with additional excavation. For this site, despite the incredible amount of data generated to date, we could not chart the growth of the Rutherford-Kizer site area between its (probable) founding during the Dowd phase and rise to prominence during the Thruston phase. Determining those factors that influenced (decisions made by) the initial Mississippian occupants to build this location into a center of affluence represents a goal that has yet to be attained. Future excavations within the site area north of the fence row are vital to fully understanding the site and its development. Hopefully such investigations can be conducted under more rigorous archaeological standards than were possible for the southern site area.

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APPENDIX A

LIST OF CORRECTED FEATURE NUMBERS AND ORIGINAL FIELD DESIGNATIONS FROM THE 1993–1995 INVESTIGATIONS AT THE RUTHERFORD-KIZER SITE

Michael C. Moore

Feature	Field Designation	Year Investigated	Comments
1	1	1993	Strip Block B; posthole
2	2	1993	Strip Block B; posthole
3	3	1993	Strip Block B; posthole
4	4	1993	Strip Block B; posthole
5	5	1993	Strip Block B; posthole
6	6	1993	Strip Block B; posthole
7	7	1993	Strip Block B; posthole
8	8	1993	Strip Block B; posthole
9	9	1993	Strip Block B; posthole
10	10	1993	Strip Block B; posthole
11	11	1993	Strip Block B; posthole
12	12	1993	Strip Block B; posthole
13	13	1993	Strip Block B; posthole
14	14	1993	Strip Block B; groundhog burrow
15	15	1993	Strip Block B; refuse-filled pit
16	16	1993	Strip Block B; bundle burial (adult)
17	17	1993	Strip Block B; posthole
18	18	1993	Strip Block B; ash-filled pit
19	19	1993	Strip Block B; posthole
20	20	1993	Strip Block B; refuse-filled pit
21	21	1993	Strip Block B; posthole
22	22	1993	Strip Block B; posthole
23	23	1993	Strip Block B; posthole
24	24	1993	Strip Block B; posthole
25	25	1993	Strip Block B; posthole
26	26	1993	Strip Block B; posthole
27	27	1993	Strip Block B; posthole
28	28	1993	Strip Block B; posthole
29	29	1993	Strip Block B; posthole
30	30	1993	Strip Block B; posthole
31	31	1993	Strip Block B; posthole
32	32	1993	Strip Block B; posthole
33	33	1993	Strip Block B; posthole
34	34	1993	Strip Block B; posthole
35	35	1993	Strip Block B; posthole
36	36	1993	Strip Block B; refuse-filled pit
37	37	1993	Strip Block B; posthole
38	38	1993	Strip Block B; posthole
39	39	1993	Strip Block B; posthole
40	40	1993	Strip Block B; posthole
41	41	1993	Strip Block B; posthole
42	42	1993	Strip Block B; posthole
43	43	1993	Strip Block B; posthole
44	44	1993	Strip Block B; posthole
45	45	1993	Strip Block B; posthole

Feature	Field Designation	Year Investigated	Comments
46	46	1993	Strip Block B; posthole
47	47	1993	Strip Block B; posthole
48	48	1993	Strip Block B; posthole
49	49	1993	Strip Block B; posthole
50	50	1993	Strip Block B; double post (overlap with Feature 51)
51	51	1993	Strip Block B; double post (overlap with Feature 50)
52	52	1993	Strip Block B; posthole
53	53	1993	Strip Block B; posthole
54	54	1993	Strip Block B; posthole
55	55	1993	Strip Block B; posthole
56	56	1993	Strip Block B; posthole
57	57	1993	Strip Block B; posthole
58	58	1993	Strip Block B; posthole
59	59	1993	Strip Block B; posthole
60	60	1993	Strip Block B; posthole
61	61	1993	Strip Block B; posthole
62	62	1993	Strip Block B; refuse-filled pit (intersects strip block wall)
63	63	1993	Strip Block B; posthole
64	64	1993	Strip Block B; posthole
65	65	1993	Strip Block B; posthole
66	66	1993	Strip Block B; posthole
67	67	1993	Strip Block B; posthole
68	68	1993	Strip Block B; posthole
69	69	1993	Strip Block B; posthole
70	70	1993	Strip Block B; posthole
71	71	1993	Strip Block B; posthole
72	72	1993	Strip Block B; posthole
73	73	1993	Strip Block B; posthole
74	74	1993	Strip Block B; posthole
75	75	1993	Strip Block B; large posthole/small pit
76	76	1993	Strip Block B; posthole
77	77	1993	Strip Block B; posthole
78	78	1993	Strip Block B; posthole
79	79	1993	Strip Block B; posthole
80	80	1993	Strip Block B; posthole
81	81	1993	Strip Block B; posthole
82	82	1993	Strip Block B; posthole
83	83	1993	Strip Block B; double post (overlap with Feature 93)
84	84	1993	Strip Block B; posthole
85	85	1993	Strip Block B; posthole
86	86	1993	Strip Block B; posthole
87	87	1993	Strip Block B; posthole
88	88	1993	Strip Block B; posthole
89	89	1993	Strip Block C; refuse-filled pit
90	90	1993	Strip Block B; posthole
91	91	1993	Strip Block B; posthole
92	92	1993	Strip Block B; posthole
93	93	1993	Strip Block B; double post (overlap with Feature 83)
94	94	1993	Strip Block B; posthole
95	95	1993	Strip Block B; rock-lined posthole
96	96	1993	Strip Block B; rock-lined posthole
97	97	1993	Strip Block B; posthole
98	98	1993	Strip Block B; posthole
99	99	1993	Strip Block B; posthole
100	100	1993	Strip Block B; posthole
101	101	1993	Strip Block B; refuse-filled pit
102	102	1993	Strip Block B; posthole

Feature	Field Designation	Year Investigated	Comments
103	103	1993	Strip Block B; posthole
104	104	1993	Strip Block B; posthole
105	105	1993	Strip Block B; posthole
106	106	1993	Strip Block B; posthole
107	107	1993	Strip Block B; large posthole/small pit
108	108	1993	Strip Block B; posthole
109	109	1993	Strip Block B; double post (overlap with Feature 110)
110	110	1993	Strip Block B; double post (overlap with Feature 109)
111	111	1993	Strip Block B; posthole
112	112	1993	Strip Block B; large posthole/small pit
113	113	1993	Strip Block B; posthole
114	114	1993	Strip Block B; posthole
115	115	1993	Strip Block B; posthole
116	116	1993	Strip Block B; posthole
117	117	1993	Strip Block B; posthole
118	118	1993	Strip Block B; posthole
119	119	1993	Strip Block B; posthole
120	120	1993	Strip Block B; posthole
121	121	1993	Strip Block B; posthole
122	122	1993	Strip Block B; posthole
123	123	1993	Strip Block B; posthole
124	124	1993	Strip Block B; posthole
125	125	1993	Strip Block B; rodent burrow
126	126	1993	Strip Block B; posthole
127	127	1993	Strip Block B; posthole
128	128	1993	Strip Block B; posthole
129	129	1993	Strip Block B; posthole
130	130	1993	Strip Block B; posthole
131	131	1993	Strip Block B; posthole in Feature 101
132	132	1993	Strip Block B; large posthole/small pit
133	133	1993	Strip Block B; pit burial (child)
134	134	1993	Strip Block B; pit burial (probable child)
135	135	1993	Strip Block B; stone box burial (probable adult)
136	136	1993	Strip Block B; posthole
137	137	1993	Strip Block B; posthole
138	138	1993	Strip Block B; posthole in Feature 101
139	139	1993	Strip Block B; posthole in Feature 101
140	140	1993	Strip Block B; posthole
141	141	1993	Strip Block B; posthole
142	142	1993	Strip Block B; posthole
143	143	1993	Strip Block B; posthole
144	144	1993	Strip Block B; posthole
145	145	1993	Strip Block B; posthole
146	146	1993	Strip Block B; posthole
147	147	1993	Strip Block B; posthole
148	148	1993	Strip Block B; posthole
149	149	1993	Strip Block B; posthole
150	150	1993	Strip Block B; posthole
151	151	1993	Strip Block B; posthole
152	152	1993	Strip Block B; posthole
153	153	1993	Strip Block B; posthole
154	154	1993	Strip Block B; posthole
155	155	1993	Strip Block B; stone box burial (probable adult)
156	156	1993	Strip Block B; posthole
157	157	1993	Strip Block B; posthole
158	158	1993	Strip Block B; posthole in Feature 101
159	A	1994	burial removal (Lots 74-78); posthole

Feature	Field Designation	Year Investigated	Comments
160	B	1994	burial removal (Lots 74-78); posthole
161	C	1994	burial removal (Lots 74-78); posthole
162	D	1994	burial removal (Lots 74-78); posthole
163	E	1994	burial removal (Lots 74-78); posthole
164	F	1994	burial removal (Lots 74-78); posthole
165	G	1994	burial removal (Lots 74-78); posthole
166	H	1994	burial removal (Lots 74-78); posthole
167	I	1994	burial removal (Lots 74-78); posthole
168	J	1994	burial removal (Lots 74-78); posthole
169	K	1994	burial removal (Lots 74-78); posthole
170	L	1994	burial removal (Lots 74-78); posthole
171	M	1994	burial removal (Lots 74-78); posthole
172	N	1994	burial removal (Lots 74-78); posthole
173	O	1994	burial removal (Lots 74-78); posthole
174	P	1994	burial removal (Lots 74-78); posthole
175	Q	1994	burial removal (Lots 74-78); posthole?
176	R	1994	burial removal (Lots 74-78); rock-filled posthole
177	S	1994	burial removal (Lots 74-78); posthole
178	T	1994	burial removal (Lots 74-78); posthole
179	U	1994	burial removal (Lots 74-78); posthole
180	V	1994	burial removal (Lots 74-78); posthole
181	W	1994	burial removal (Lots 74-78); posthole
182	X	1994	burial removal (Lots 74-78); posthole
183	Y	1994	burial removal (Lots 74-78); posthole
184	Z	1994	burial removal (Lots 74-78); posthole
185	AA	1994	burial removal (Lots 74-78); posthole
186	AB	1994	burial removal (Lots 74-78); posthole
187	AC	1994	burial removal (Lots 74-78); posthole
188	AD	1994	burial removal (Lots 74-78); posthole
189	AE	1994	burial removal (Lots 74-78); posthole
190	AF	1994	burial removal (Lots 74-78); posthole
191	AG	1994	burial removal (Lots 74-78); posthole
192	AH	1994	burial removal (Lots 74-78); posthole
193	AI	1994	burial removal (Lots 74-78); refuse-filled pit?
194	AN	1994	burial removal (Lots 74-78); refuse-filled pit
195	AO	1994	burial removal (Lots 74-78); refuse-filled pit
196	AP	1994	burial removal (Lots 74-78); pit burial
197	AQ	1994	burial removal (Lots 74-78); posthole
198	AR	1994	burial removal (Lots 74-78); posthole
199	AS	1994	burial removal (Lots 74-78); posthole
200	AT	1994	burial removal (Lots 74-78); posthole
201	AU	1994	burial removal (Lots 74-78); posthole
202	AV	1994	burial removal (Lots 74-78); posthole
203	AW	1994	burial removal (Lots 74-78); posthole
204	AX	1994	burial removal (Lots 74-78); posthole
205	AY	1994	burial removal (Lots 74-78); posthole
206	AZ	1994	burial removal (Lots 74-78); posthole
207	BA	1994	burial removal (Lots 74-78); posthole
208	BB	1994	burial removal (Lots 74-78); posthole
209	BC	1994	burial removal (Lots 74-78); refuse-filled pit
210	BD	1994	burial removal (Lots 74-78); posthole
211	BE	1994	burial removal (Lots 74-78); posthole
212	BF	1994	burial removal (Lots 74-78); posthole
213	BG	1994	burial removal (Lots 74-78); posthole
214	BH	1994	burial removal (Lots 74-78); posthole
215	BI	1994	burial removal (Lots 74-78); posthole
216	BJ	1994	burial removal (Lots 74-78); posthole

Feature	Field Designation	Year Investigated	Comments
217	BK	1994	burial removal (Lots 74-78); posthole
218	BL	1994	burial removal (Lots 74-78); posthole
219	BM	1994	burial removal (Lots 74-78); modern
220	BN	1994	burial removal (Lots 74-78); modern
221	BO	1994	burial removal (Lots 74-78); posthole
222	BP	1994	burial removal (Lots 74-78); posthole
223	BQ	1994	burial removal (Lots 74-78); posthole
224	BR	1994	burial removal (Lots 74-78); posthole
225	BS	1994	burial removal (Lots 74-78); posthole
226	BT	1994	burial removal (Lots 74-78); posthole
227	BU	1994	burial removal (Lots 74-78); posthole
228	BV	1994	burial removal (Lots 74-78); posthole
229	BW	1994	burial removal (Lots 74-78); posthole
230	BX	1994	burial removal (Lots 74-78); posthole
231	BY	1994	burial removal (Lots 74-78); posthole
232	BZ	1994	burial removal (Lots 74-78); posthole
233	CA	1994	burial removal (Lots 74-78); posthole
234	CB	1994	burial removal (Lots 74-78); posthole
235	CC	1994	burial removal (Lots 74-78); posthole
236	CD	1994	burial removal (Lots 74-78); posthole
237	CE	1994	burial removal (Lots 74-78); posthole
238	CF	1994	burial removal (Lots 74-78); posthole
239	CG	1994	burial removal (Lots 74-78); posthole
240	CH	1994	burial removal (Lots 74-78); posthole
241	CI	1994	burial removal (Lots 74-78); posthole
242	CJ	1994	burial removal (Lots 74-78); posthole
243	CK	1994	burial removal (Lots 74-78); posthole
244	CL	1994	burial removal (Lots 74-78); refuse-filled pit
245	CM	1994	burial removal (Lots 74-78); posthole?
246	CN	1994	burial removal (Lots 74-78); modern
247	CO	1994	burial removal (Lots 74-78); posthole
248	CP	1994	burial removal (Lots 74-78); posthole
249	CQ	1994	burial removal (Lots 74-78); posthole
250	CR	1994	burial removal (Lots 74-78); posthole
251	CS	1994	burial removal (Lots 74-78); posthole
252	CT	1994	burial removal (Lots 74-78); posthole
253	CU	1994	burial removal (Lots 74-78); posthole
254	CV	1994	burial removal (Lots 74-78); posthole
255	CW	1994	burial removal (Lots 74-78); posthole
256	CZ	1994	burial removal (Lots 74-78); posthole
257	DA	1994	burial removal (Lots 74-78); posthole
258	DB	1994	burial removal (Lots 74-78); posthole
259	DC	1994	burial removal (Lots 74-78); posthole
260	DD	1994	burial removal (Lots 74-78); posthole
261	DE	1994	burial removal (Lots 74-78); posthole
262	DF	1994	burial removal (Lots 74-78); posthole
263	DG	1994	burial removal (Lots 74-78); posthole
264	DH	1994	burial removal (Lots 74-78); posthole
265	DI	1994	burial removal (Lots 74-78); posthole
266	DJ	1994	burial removal (Lots 74-78); posthole
267	DK	1994	burial removal (Lots 74-78); posthole
268	DL	1994	burial removal (Lots 74-78); posthole
269	DM	1994	burial removal (Lots 74-78); modern
270	DN	1994	burial removal (Lots 74-78); modern
271	DO	1994	burial removal (Lots 74-78); posthole
272	DP	1994	burial removal (Lots 74-78); posthole
273	DQ	1994	burial removal (Lots 74-78); posthole

Feature	Field Designation	Year Investigated	Comments
274	DR	1994	burial removal (Lots 74-78); posthole
275	DS	1994	burial removal (Lots 74-78); posthole
276	DT	1994	burial removal (Lots 74-78); posthole
277	DU	1994	burial removal (Lots 74-78); posthole
278	DV	1994	burial removal (Lots 74-78); posthole
279	DW	1994	burial removal (Lots 74-78); posthole
280	DX	1994	burial removal (Lots 74-78); posthole
281	DY	1994	burial removal (Lots 74-78); posthole
282	DZ	1994	burial removal (Lots 74-78); posthole
283	EA	1994	burial removal (Lots 74-78); posthole
284	EB	1994	burial removal (Lots 74-78); posthole
285	EK	1994	burial removal (Lots 74-78); posthole
286	EL	1994	burial removal (Lots 74-78); posthole
287	EM	1994	burial removal (Lots 74-78); posthole
288	EN	1994	burial removal (Lots 74-78); posthole
289	EO	1994	burial removal (Lots 74-78); posthole
290	EP	1994	burial removal (Lots 74-78); posthole
291	EQ	1994	burial removal (Lots 74-78); posthole
292	ER	1994	burial removal (Lots 74-78); posthole
293	ES	1994	burial removal (Lots 74-78); posthole
294	ET	1994	burial removal (Lots 74-78); posthole
295	EU	1994	burial removal (Lots 74-78); posthole
296	EV	1994	burial removal (Lots 74-78); posthole
297	EW	1994	burial removal (Lots 74-78); posthole
298	EX	1994	burial removal (Lots 74-78); posthole
299	EY	1994	burial removal (Lots 74-78); posthole
300	EZ	1994	burial removal (Lots 74-78); posthole
301	FA	1994	burial removal (Lots 74-78); hearth
302	FB	1994	burial removal (Lots 74-78); posthole
303	FC	1994	burial removal (Lots 74-78); posthole
304	FD	1994	burial removal (Lots 74-78); posthole
305	FE	1994	burial removal (Lots 74-78); posthole
306	FF	1994	burial removal (Lots 74-78); posthole
307	FG	1994	burial removal (Lots 74-78); posthole
308	FH	1994	burial removal (Lots 74-78); posthole
309	FI	1994	burial removal (Lots 74-78); posthole
310	FJ, bur 13	1994	burial removal (Lots 74-78); pit burial
311	EV2	1994	burial removal (Lots 74-78); posthole
312	FL	1994	burial removal (Lots 74-78); posthole
313	FM	1994	burial removal (Lots 74-78); posthole
314	FN	1994	burial removal (Lots 74-78); posthole
315	FO	1994	burial removal (Lots 74-78); posthole
316	FP	1994	burial removal (Lots 74-78); posthole
317	FQ	1994	burial removal (Lots 74-78); posthole
318	FR	1994	burial removal (Lots 74-78); posthole; bastion
319	FS	1994	burial removal (Lots 74-78); posthole; bastion
320	FT	1994	burial removal (Lots 74-78); posthole; bastion
321	FU	1994	burial removal (Lots 74-78); posthole; bastion
322	FV	1994	burial removal (Lots 74-78); posthole; bastion
323	FW	1994	burial removal (Lots 74-78); posthole; bastion
324	FX	1994	burial removal (Lots 74-78); posthole; bastion
325	FY	1994	burial removal (Lots 74-78); posthole; bastion
326	FZ	1994	burial removal (Lots 74-78); posthole; palisade
327	GA	1994	burial removal (Lots 74-78); posthole; palisade
328	GB	1994	burial removal (Lots 74-78); posthole; palisade
329	GC	1994	burial removal (Lots 74-78); posthole; palisade
330	GD	1994	burial removal (Lots 74-78); posthole; palisade

Feature	Field Designation	Year Investigated	Comments
331	GE	1994	burial removal (Lots 74-78); posthole; bastion
332	GF	1994	burial removal (Lots 74-78); posthole; bastion
333	GG	1994	burial removal (Lots 74-78); posthole; bastion
334	GH	1994	burial removal (Lots 74-78); posthole; bastion
335	GI	1994	burial removal (Lots 74-78); posthole; bastion
336	GJ	1994	burial removal (Lots 74-78); posthole; bastion
337	GK	1994	burial removal (Lots 74-78); posthole; bastion
338	GL	1994	burial removal (Lots 74-78); posthole; bastion
339	GM	1994	burial removal (Lots 74-78); posthole; bastion
340	GN	1994	burial removal (Lots 74-78); posthole; bastion
341	GO	1994	burial removal (Lots 74-78); posthole; bastion
342	GP	1994	burial removal (Lots 74-78); posthole; bastion
343	GQ	1994	burial removal (Lots 74-78); posthole; bastion
344	GR	1994	burial removal (Lots 74-78); posthole; bastion
345	GS	1994	burial removal (Lots 74-78); posthole; palisade
346	GT	1994	burial removal (Lots 74-78); posthole; palisade
347	GU	1994	burial removal (Lots 74-78); posthole; palisade
348	GV	1994	burial removal (Lots 74-78); posthole; palisade
349	GW	1994	burial removal (Lots 74-78); posthole; palisade
350	GX	1994	burial removal (Lots 74-78); posthole; palisade
351	GY	1994	burial removal (Lots 74-78); posthole; palisade
352	GZ	1994	burial removal (Lots 74-78); posthole; palisade
353	HA	1994	burial removal (Lots 74-78); posthole; palisade
354	HB	1994	burial removal (Lots 74-78); posthole; palisade
355	HC	1994	burial removal (Lots 74-78); posthole; palisade
356	HD	1994	burial removal (Lots 74-78); posthole; palisade
357	HE	1994	burial removal (Lots 74-78); posthole; palisade
358	HF, bur 3	1994	burial removal (Lots 74-78); bundle burial
359	HG	1994	burial removal (Lots 74-78); refuse-filled pit
360	HH, pit 2	1994	burial removal (Lots 74-78); refuse-filled pit
361	HI, pit 4	1994	burial removal (Lots 74-78); refuse-filled pit
362	HJ	1994	burial removal (Lots 74-78); refuse-filled pit
363	HK	1994	burial removal (Lots 74-78); posthole
364	HL	1994	burial removal (Lots 74-78); posthole
365	HM	1994	burial removal (Lots 74-78); refuse-filled pit
366	HP	1994	burial removal (Lots 74-78); posthole
367	HQ	1994	burial removal (Lots 74-78); rock concentration
368	HR	1994	burial removal (Lots 74-78); posthole; palisade?
369	HS	1994	burial removal (Lots 74-78); posthole
370	HT	1994	burial removal (Lots 74-78); posthole
371	HU, pit 9	1994	burial removal (Lots 74-78); overlapping pits
372	HV, pit 8	1994	burial removal (Lots 74-78); refuse-filled pit
373	HW, pit 5	1994	burial removal (Lots 74-78); refuse-filled pit
374	HX, pit 7	1994	burial removal (Lots 74-78); refuse-filled pit
375	HY	1994	burial removal (Lots 74-78); posthole
376	HZ	1994	burial removal (Lots 74-78); posthole
377	IA	1994	burial removal (Lots 74-78); posthole
378	ID	1994	burial removal (Lots 74-78); posthole
379	IE	1994	burial removal (Lots 74-78); posthole
380	IF	1994	burial removal (Lots 74-78); posthole
381	IG	1994	burial removal (Lots 74-78); posthole
382	IH	1994	burial removal (Lots 74-78); posthole
383	II	1994	burial removal (Lots 74-78); posthole
384	IJ	1994	burial removal (Lots 74-78); posthole
385	IK	1994	burial removal (Lots 74-78); posthole
386	IL	1994	burial removal (Lots 74-78); posthole
387	IM	1994	burial removal (Lots 74-78); posthole

Feature	Field Designation	Year Investigated	Comments
388	IN	1994	burial removal (Lots 74-78); posthole
389	IO	1994	burial removal (Lots 74-78); posthole
390	IP	1994	burial removal (Lots 74-78); posthole
391	IQ	1994	burial removal (Lots 74-78); posthole
392	IR, pit 1	1994	burial removal (Lots 74-78); refuse-filled pit
393	IS	1994	burial removal (Lots 74-78); posthole
394	IT	1994	burial removal (Lots 74-78); posthole
395	IU	1994	burial removal (Lots 74-78); posthole
396	IV	1994	burial removal (Lots 74-78); posthole
397	IW	1994	burial removal (Lots 74-78); posthole
398	IX	1994	burial removal (Lots 74-78); posthole
399	IY	1994	burial removal (Lots 74-78); posthole
400	IZ	1994	burial removal (Lots 74-78); posthole
401	JA	1994	burial removal (Lots 74-78); posthole
402	JB	1994	burial removal (Lots 74-78); posthole
403	JC	1994	burial removal (Lots 74-78); posthole
404	JD	1994	burial removal (Lots 74-78); posthole
405	JE	1994	burial removal (Lots 74-78); posthole
406	JF	1994	burial removal (Lots 74-78); posthole
407	JG	1994	burial removal (Lots 74-78); posthole
408	JH	1994	burial removal (Lots 74-78); posthole
409	JM	1994	burial removal (Lots 74-78); posthole
410	JP	1994	burial removal (Lots 74-78); posthole
411	JQ	1994	burial removal (Lots 74-78); posthole
412	JR	1994	burial removal (Lots 74-78); posthole
413	JS	1994	burial removal (Lots 74-78); posthole
414	JT	1994	burial removal (Lots 74-78); posthole
415	JU	1994	burial removal (Lots 74-78); posthole
416	JV	1994	burial removal (Lots 74-78); posthole
417	JW	1994	burial removal (Lots 74-78); posthole
418	JX	1994	burial removal (Lots 74-78); posthole
419	JY	1994	burial removal (Lots 74-78); posthole
420	JZ	1994	burial removal (Lots 74-78); posthole
421	KA	1994	burial removal (Lots 74-78); posthole
422	KB	1994	burial removal (Lots 74-78); posthole
423	KC	1994	burial removal (Lots 74-78); posthole
424	KF	1994	burial removal (Lots 74-78); posthole
425	KG, fea 3	1994	burial removal (Lots 74-78); refuse-filled pit
426	KH	1994	burial removal (Lots 74-78); posthole
427	LC	1994	burial removal (Lots 74-78); posthole
428	LD	1994	burial removal (Lots 74-78); posthole
429	LE	1994	burial removal (Lots 74-78); posthole
430	LF	1994	burial removal (Lots 74-78); posthole
431	LG	1994	burial removal (Lots 74-78); posthole
432	LH	1994	burial removal (Lots 74-78); posthole
433	LI	1994	burial removal (Lots 74-78); posthole
434	LJ	1994	burial removal (Lots 74-78); posthole
435	LK	1994	burial removal (Lots 74-78); posthole
436	LL	1994	burial removal (Lots 74-78); posthole
437	LP	1994	burial removal (Lots 74-78); posthole
438	LQ	1994	burial removal (Lots 74-78); posthole
439	LR	1994	burial removal (Lots 74-78); posthole
440	LS	1994	burial removal (Lots 74-78); posthole
441	LT	1994	burial removal (Lots 74-78); posthole
442	LU	1994	burial removal (Lots 74-78); posthole
443	LV	1994	burial removal (Lots 74-78); posthole
444	LW	1994	burial removal (Lots 74-78); posthole

Feature	Field Designation	Year Investigated	Comments
445	LX	1994	burial removal (Lots 74-78); posthole
446	LY	1994	burial removal (Lots 74-78); posthole
447	LZ	1994	burial removal (Lots 74-78); posthole
448	MA	1994	burial removal (Lots 74-78); posthole
449	MB	1994	burial removal (Lots 74-78); posthole
450	MC	1994	burial removal (Lots 74-78); posthole
451	MD	1994	burial removal (Lots 74-78); posthole
452	ME	1994	burial removal (Lots 74-78); posthole
453	MN	1994	burial removal (Lots 74-78); posthole
454	MO	1994	burial removal (Lots 74-78); posthole
455	MP	1994	burial removal (Lots 74-78); posthole
456	MQ	1994	burial removal (Lots 74-78); posthole
457	MR	1994	burial removal (Lots 74-78); posthole
458	MS	1994	burial removal (Lots 74-78); posthole/small pit?
459	MT	1994	burial removal (Lots 74-78); posthole
460	MU	1994	burial removal (Lots 74-78); posthole
461	MV	1994	burial removal (Lots 74-78); posthole
462	MW	1994	burial removal (Lots 74-78); posthole
463	MX	1994	burial removal (Lots 74-78); posthole
464	MY	1994	burial removal (Lots 74-78); posthole
465	MZ	1994	burial removal (Lots 74-78); posthole
466	NA	1994	burial removal (Lots 74-78); posthole
467	NB	1994	burial removal (Lots 74-78); posthole
468	NC	1994	burial removal (Lots 74-78); posthole
469	ND	1994	burial removal (Lots 74-78); posthole
470	NE	1994	burial removal (Lots 74-78); posthole
471	NF	1994	burial removal (Lots 74-78); posthole
472	NG	1994	burial removal (Lots 74-78); posthole
473	NH	1994	burial removal (Lots 74-78); posthole
474	NI	1994	burial removal (Lots 74-78); posthole
475	NJ	1994	burial removal (Lots 74-78); posthole
476	NK	1994	burial removal (Lots 74-78); posthole
477	NL	1994	burial removal (Lots 74-78); posthole
478	NM	1994	burial removal (Lots 74-78); posthole
479	NN	1994	burial removal (Lots 74-78); posthole
480	NO	1994	burial removal (Lots 74-78); posthole
481	NP	1994	burial removal (Lots 74-78); posthole
482	NQ	1994	burial removal (Lots 74-78); posthole
483	NR	1994	burial removal (Lots 74-78); posthole
484	NS	1994	burial removal (Lots 74-78); posthole
485	NT	1994	burial removal (Lots 74-78); posthole; palisade?
486	NU	1994	burial removal (Lots 74-78); posthole; palisade
487	NV	1994	burial removal (Lots 74-78); posthole; palisade
488	NW	1994	burial removal (Lots 74-78); posthole; palisade?
489	NX	1994	burial removal (Lots 74-78); posthole; palisade
490	NY	1994	burial removal (Lots 74-78); posthole; palisade
491	NZ	1994	burial removal (Lots 74-78); posthole; palisade
492	OA	1994	burial removal (Lots 74-78); posthole; palisade
493	OB	1994	burial removal (Lots 74-78); posthole; palisade
494	OC	1994	burial removal (Lots 74-78); posthole; palisade
495	OD	1994	burial removal (Lots 74-78); posthole; palisade
496	OE	1994	burial removal (Lots 74-78); posthole; palisade
497	OF	1994	burial removal (Lots 74-78); posthole
498	OG	1994	burial removal (Lots 74-78); posthole
499	OH	1994	burial removal (Lots 74-78); posthole
500	OI	1994	burial removal (Lots 74-78); refuse-filled pit?
501	OJ	1994	burial removal (Lots 74-78); posthole

Feature	Field Designation	Year Investigated	Comments
502	OK	1994	burial removal (Lots 74-78); posthole
503	OL	1994	burial removal (Lots 74-78); refuse-filled pit
504	OM	1994	burial removal (Lots 74-78); posthole
505	ON	1994	burial removal (Lots 74-78); posthole
506	OO	1994	burial removal (Lots 74-78); refuse-filled pit
507	OP	1994	burial removal (Lots 74-78); posthole
508	OQ	1994	burial removal (Lots 74-78); posthole
509	OR	1994	burial removal (Lots 74-78); posthole
510	OS	1994	burial removal (Lots 74-78); posthole
511	OT	1994	burial removal (Lots 74-78); posthole
512	OU	1994	burial removal (Lots 74-78); posthole
513	OV	1994	burial removal (Lots 74-78); posthole; palisade
514	OW	1994	burial removal (Lots 74-78); posthole; palisade
515	OX	1994	burial removal (Lots 74-78); posthole; palisade
516	OY	1994	burial removal (Lots 74-78); posthole; palisade
517	OZ	1994	burial removal (Lots 74-78); posthole; palisade
518	PA	1994	burial removal (Lots 74-78); posthole; palisade
519	PB	1994	burial removal (Lots 74-78); posthole; palisade
520	PC	1994	burial removal (Lots 74-78); posthole; palisade
521	PD	1994	burial removal (Lots 74-78); posthole; palisade
522	PE	1994	burial removal (Lots 74-78); posthole; bastion
523	PF	1994	burial removal (Lots 74-78); posthole; bastion
524	PG	1994	burial removal (Lots 74-78); posthole; bastion
525	PH	1994	burial removal (Lots 74-78); posthole; bastion
526	PI	1994	burial removal (Lots 74-78); posthole; bastion
527	PJ	1994	burial removal (Lots 74-78); posthole; bastion
528	PK	1994	burial removal (Lots 74-78); posthole; bastion
529	PL	1994	burial removal (Lots 74-78); posthole; bastion
530	PM	1994	burial removal (Lots 74-78); posthole; bastion
531	PN	1994	burial removal (Lots 74-78); posthole; bastion
532	PQ	1994	burial removal (Lots 74-78); posthole
533	PR	1994	burial removal (Lots 74-78); posthole
534	PS	1994	burial removal (Lots 74-78); posthole
535	PV	1994	burial removal (Lots 74-78); posthole
536	PW	1994	burial removal (Lots 74-78); posthole; palisade?
537	PX	1994	burial removal (Lots 74-78); posthole
538	PY	1994	burial removal (Lots 74-78); posthole
539	PZ	1994	burial removal (Lots 74-78); posthole
540	QA	1994	burial removal (Lots 74-78); posthole
541	QB	1994	burial removal (Lots 74-78); posthole
542	QC	1994	burial removal (Lots 74-78); posthole
543	QD	1994	burial removal (Lots 74-78); posthole
544	QE	1994	burial removal (Lots 74-78); posthole
545	QF	1994	burial removal (Lots 74-78); posthole
546	QG	1994	burial removal (Lots 74-78); posthole
547	QH	1994	burial removal (Lots 74-78); posthole
548	QI	1994	burial removal (Lots 74-78); posthole
549	QJ	1994	burial removal (Lots 74-78); refuse-filled pit
550	QK	1994	burial removal (Lots 74-78); pit?
551	QL	1994	burial removal (Lots 74-78); posthole
552	QM	1994	burial removal (Lots 74-78); posthole
553	QN	1994	burial removal (Lots 74-78); posthole
554	QO	1994	burial removal (Lots 74-78); posthole
555	QP	1994	burial removal (Lots 74-78); posthole
556	QQ	1994	burial removal (Lots 74-78); posthole
557	QR	1994	burial removal (Lots 74-78); posthole
558	QS	1994	burial removal (Lots 74-78); refuse-filled pit

Feature	Field Designation	Year Investigated	Comments
559	QT	1994	burial removal (Lots 74-78); refuse-filled pit
560	QW	1994	burial removal (Lots 74-78); posthole
561	QX	1994	burial removal (Lots 74-78); posthole
562	QY	1994	burial removal (Lots 74-78); posthole
563	QZ	1994	burial removal (Lots 74-78); posthole
564	RA	1994	burial removal (Lots 74-78); posthole
565	RB	1994	burial removal (Lots 74-78); posthole
566	RC	1994	burial removal (Lots 74-78); posthole
567	RD	1994	burial removal (Lots 74-78); posthole
568	RE	1994	burial removal (Lots 74-78); posthole
569	RF	1994	burial removal (Lots 74-78); posthole
570	RG	1994	burial removal (Lots 74-78); posthole
571	RH	1994	burial removal (Lots 74-78); posthole
572	RI	1994	burial removal (Lots 74-78); posthole
573	RJ	1994	burial removal (Lots 74-78); posthole
574	RK	1994	burial removal (Lots 74-78); posthole
575	RL	1994	burial removal (Lots 74-78); posthole
576	RO	1994	burial removal (Lots 74-78); posthole
577	RT	1994	burial removal (Lots 74-78); posthole
578	RU	1994	burial removal (Lots 74-78); rock-lined posthole
579	RV	1994	burial removal (Lots 74-78); posthole
580	RW	1994	burial removal (Lots 74-78); posthole
581	RX	1994	burial removal (Lots 74-78); posthole
582	RY	1994	burial removal (Lots 74-78); posthole
583	RZ	1994	burial removal (Lots 74-78); posthole
584	SA	1994	burial removal (Lots 74-78); posthole
585	SB	1994	burial removal (Lots 74-78); posthole
586	SC	1994	burial removal (Lots 74-78); burned area (hearth?)
587	SD	1994	burial removal (Lots 74-78); refuse-filled pit
588	SE	1994	burial removal (Lots 74-78); refuse-filled pit
589	SF	1994	burial removal (Lots 74-78); posthole
590	SG	1994	burial removal (Lots 74-78); posthole
591	SH	1994	burial removal (Lots 74-78); posthole; palisade
592	SI	1994	burial removal (Lots 74-78); posthole
593	SJ	1994	burial removal (Lots 74-78); posthole; palisade
594	SK	1994	burial removal (Lots 74-78); posthole; palisade
595	SL	1994	burial removal (Lots 74-78); posthole; palisade
596	SM	1994	burial removal (Lots 74-78); posthole
597	SP	1994	burial removal (Lots 74-78); posthole
598	SQ	1994	burial removal (Lots 74-78); posthole
599	SR	1994	burial removal (Lots 74-78); posthole
600	SS	1994	burial removal (Lots 74-78); posthole; bastion
601	ST	1994	burial removal (Lots 74-78); posthole; bastion
602	SU	1994	burial removal (Lots 74-78); posthole; bastion
603	SV	1994	burial removal (Lots 74-78); posthole; bastion
604	SW	1994	burial removal (Lots 74-78); posthole; bastion
605	SX	1994	burial removal (Lots 74-78); posthole; bastion
606	SY	1994	burial removal (Lots 74-78); posthole; palisade
607	SZ	1994	burial removal (Lots 74-78); posthole; palisade
608	TA	1994	burial removal (Lots 74-78); posthole; palisade
609	TB	1994	burial removal (Lots 74-78); posthole; palisade
610	TC	1994	burial removal (Lots 74-78); posthole; palisade
611	TD	1994	burial removal (Lots 74-78); posthole; palisade
612	TE	1994	burial removal (Lots 74-78); posthole; palisade
613	TF	1994	burial removal (Lots 74-78); posthole; palisade
614	TG	1994	burial removal (Lots 74-78); posthole; palisade
615	TH	1994	burial removal (Lots 74-78); posthole; palisade

Feature	Field Designation	Year Investigated	Comments
616	TI	1994	burial removal (Lots 74-78); posthole; palisade
617	TJ	1994	burial removal (Lots 74-78); posthole; palisade
618	TK	1994	burial removal (Lots 74-78); posthole; palisade
619	TL	1994	burial removal (Lots 74-78); posthole; palisade
620	TM	1994	burial removal (Lots 74-78); posthole; palisade
621	TN	1994	burial removal (Lots 74-78); posthole; palisade
622	TO	1994	burial removal (Lots 74-78); posthole; palisade
623	TP	1994	burial removal (Lots 74-78); posthole; palisade
624	TQ	1994	burial removal (Lots 74-78); posthole; palisade
625	TR	1994	burial removal (Lots 74-78); posthole; palisade
626	TS	1994	burial removal (Lots 74-78); posthole; palisade
627	TT	1994	burial removal (Lots 74-78); posthole; palisade
628	TU	1994	burial removal (Lots 74-78); posthole; palisade
629	TV	1994	burial removal (Lots 74-78); posthole; palisade
630	TW	1994	burial removal (Lots 74-78); posthole; palisade
631	TX	1994	burial removal (Lots 74-78); posthole; palisade
632	TY	1994	burial removal (Lots 74-78); posthole; palisade
633	TZ	1994	burial removal (Lots 74-78); posthole; palisade
634	UA	1994	burial removal (Lots 74-78); posthole
635	UB	1994	burial removal (Lots 74-78); posthole
636	UC	1994	burial removal (Lots 74-78); posthole
637	UD	1994	burial removal (Lots 74-78); posthole
638	UM	1994	burial removal (Lots 74-78); posthole
639	UN	1994	burial removal (Lots 74-78); posthole
640	UO	1994	burial removal (Lots 74-78); posthole
641	UP	1994	burial removal (Lots 74-78); posthole
642	UQ	1994	burial removal (Lots 74-78); posthole
643	UR	1994	burial removal (Lots 74-78); posthole
644	US	1994	burial removal (Lots 74-78); posthole
645	UT	1994	burial removal (Lots 74-78); posthole
646	UU	1994	burial removal (Lots 74-78); posthole
647	UV	1994	burial removal (Lots 74-78); posthole
648	UW	1994	burial removal (Lots 74-78); posthole
649	UX	1994	burial removal (Lots 74-78); posthole
650	UY	1994	burial removal (Lots 74-78); posthole
651	UZ	1994	burial removal (Lots 74-78); posthole
652	VA	1994	burial removal (Lots 74-78); posthole
653	VB	1994	burial removal (Lots 74-78); posthole
654	VC	1994	burial removal (Lots 74-78); posthole
655	VD	1994	burial removal (Lots 74-78); posthole
656	VE	1994	burial removal (Lots 74-78); posthole
657	VF	1994	burial removal (Lots 74-78); posthole
658	VG	1994	burial removal (Lots 74-78); posthole
659	VJ	1994	burial removal (Lots 74-78); posthole
660	VK	1994	burial removal (Lots 74-78); refuse-filled pit
661	VL	1994	burial removal (Lots 74-78); posthole, palisade
662	VM	1994	burial removal (Lots 74-78); posthole, palisade
663	VN	1994	burial removal (Lots 74-78); posthole, palisade
664	VO	1994	burial removal (Lots 74-78); posthole, palisade
665	VP	1994	burial removal (Lots 74-78); posthole, palisade
666	VQ	1994	burial removal (Lots 74-78); posthole, palisade
667	VR	1994	burial removal (Lots 74-78); refuse-filled pit
668	VT	1994	burial removal (Lots 74-78); posthole; palisade
669	VU	1994	burial removal (Lots 74-78); posthole; palisade
670	VV	1994	burial removal (Lots 74-78); posthole; palisade
671	VW	1994	burial removal (Lots 74-78); posthole; palisade
672	VX	1994	burial removal (Lots 74-78); posthole; palisade

Feature	Field Designation	Year Investigated	Comments
673	VY	1994	burial removal (Lots 74-78); posthole; palisade
674	VZ, bur 42	1994	burial removal (Lots 74-78); pit burial
675	WJ	1994	burial removal (Lots 74-78); posthole; palisade
676	WK	1994	burial removal (Lots 74-78); posthole; palisade
677	WL	1994	burial removal (Lots 74-78); posthole; palisade
678	WM	1994	burial removal (Lots 74-78); posthole, palisade
679	WN	1994	burial removal (Lots 74-78); posthole, palisade
680	WO	1994	burial removal (Lots 74-78); posthole, bastion
681	WP	1994	burial removal (Lots 74-78); posthole, bastion
682	WQ	1994	burial removal (Lots 74-78); posthole, bastion
683	WR	1994	burial removal (Lots 74-78); posthole, bastion
684	WS	1994	burial removal (Lots 74-78); posthole, bastion
685	WT	1994	burial removal (Lots 74-78); posthole, bastion
686	WU	1994	burial removal (Lots 74-78); posthole, bastion
687	WV	1994	burial removal (Lots 74-78); posthole, bastion
688	WW	1994	burial removal (Lots 74-78); posthole, bastion
689	WX	1994	burial removal (Lots 74-78); posthole, palisade
690	WY	1994	burial removal (Lots 74-78); posthole, palisade
691	WZ	1994	burial removal (Lots 74-78); posthole, palisade
692	XA	1994	burial removal (Lots 74-78); posthole, palisade
693	XB	1994	burial removal (Lots 74-78); refuse-filled pit
694	XC	1994	burial removal (Lots 74-78); refuse-filled pit
695	XD	1994	burial removal (Lots 74-78); refuse-filled pit
696	XE	1994	burial removal (Lots 74-78); refuse-filled pit
697	XF	1994	burial removal (Lots 74-78); refuse-filled pit
698	XG	1994	burial removal (Lots 74-78); refuse-filled pit
699	XH	1994	burial removal (Lots 74-78); refuse-filled pit
700	XI	1994	burial removal (Lots 74-78); refuse-filled pit
701	XJ	1994	burial removal (Lots 74-78); refuse-filled pit
702	XK	1994	burial removal (Lots 74-78); refuse-filled pit
703	XL	1994	burial removal (Lots 74-78); posthole; palisade?
704	XM	1994	burial removal (Lots 74-78); posthole; palisade
705	XN	1994	burial removal (Lots 74-78); posthole; palisade
706	XO	1994	burial removal (Lots 74-78); posthole; palisade
707	XP	1994	burial removal (Lots 74-78); posthole; palisade
708	XQ	1994	burial removal (Lots 74-78); posthole; palisade
709	XR	1994	burial removal (Lots 74-78); posthole; palisade
710	XS	1994	burial removal (Lots 74-78); refuse-filled pit
711	XT	1994	burial removal (Lots 74-78); refuse-filled pit
712	XU	1994	burial removal (Lots 74-78); posthole; palisade?
713	XV	1994	burial removal (Lots 74-78); refuse-filled pit
714	XW	1994	burial removal (Lots 74-78); refuse-filled pit
715	XX	1994	burial removal (Lots 74-78); refuse-filled pit
716	XY	1994	burial removal (Lots 74-78); refuse-filled pit
717	XZ	1994	burial removal (Lots 74-78); refuse-filled pit
718	YA	1994	burial removal (Lots 74-78); refuse-filled pit
719	YB	1994	burial removal (Lots 74-78); posthole
720	YC	1994	burial removal (Lots 74-78); posthole
721	YD	1994	burial removal (Lots 74-78); posthole, bastion
722	YE	1994	burial removal (Lots 74-78); posthole, bastion
723	YF	1994	burial removal (Lots 74-78); posthole, bastion
724	YG	1994	burial removal (Lots 74-78); posthole, bastion
725	YH	1994	burial removal (Lots 74-78); posthole, bastion
726	YI	1994	burial removal (Lots 74-78); posthole; palisade
727	YJ	1994	burial removal (Lots 74-78); posthole; palisade
728	YK	1994	burial removal (Lots 74-78); posthole, bastion
729	YP	1994	burial removal (Lots 74-78); posthole, bastion

Feature	Field Designation	Year Investigated	Comments
731	YR	1994	burial removal (Lots 74-78); posthole, bastion
732	YS	1994	burial removal (Lots 74-78); posthole, bastion
733	YT	1994	burial removal (Lots 74-78); posthole, bastion
734	YU	1994	burial removal (Lots 74-78); posthole, bastion
735	YV	1994	burial removal (Lots 74-78); posthole, bastion
736	YX	1994	burial removal (Lots 74-78); posthole, bastion
737	ZA	1994	burial removal (Lots 74-78); posthole
738	S, fea 1	1995	burial removal (Lot 85); hearth
739	T, fea 2	1995	burial removal (Lot 85); refuse-filled pit
740	U, fea 3	1995	burial removal (Lot 85); refuse-filled pit
741	AE, fea 4	1995	burial removal (Lot 85); refuse-filled pit
742	AK, fea 5	1995	burial removal (Lot 85); biface cache
743	B	1995	Lot 73; posthole, palisade
744	C	1995	Lot 73; posthole, palisade
745	D	1995	Lot 73; posthole, palisade
746	E	1995	Lot 73; posthole, palisade
747	F	1995	Lot 73; posthole, palisade
748	G	1995	Lot 73; posthole, palisade
749	H	1995	Lot 73; posthole, palisade
750	I	1995	Lot 73; posthole, palisade
751	J	1995	Lot 73; posthole, palisade
752	K	1995	Lot 73; posthole, palisade
753	L	1995	Lot 73; posthole, palisade
754	M	1995	Lot 73; posthole, palisade
755	N	1995	Lot 73; posthole, palisade
756	O	1995	Lot 73; posthole, palisade
757	P	1995	Lot 73; posthole, palisade
758	Q	1995	Lot 73; posthole, palisade
759	R	1995	Lot 73; posthole, palisade
760	S	1995	Lot 73; posthole, palisade
761	T	1995	Lot 73; posthole, palisade
762	U	1995	Lot 73; posthole, palisade
763	V	1995	Lot 73; posthole, palisade
764	W	1995	Lot 73; posthole, palisade
765	X	1995	Lot 73; posthole, palisade
766	Y	1995	Lot 73; posthole, palisade
767	Z	1995	Lot 73; posthole, palisade
768	AA	1995	Lot 73; posthole, palisade
769	AB	1995	Lot 73; posthole, palisade
770	AC	1995	Lot 73; posthole, palisade
771	AD	1995	Lot 73; refuse-filled pit
772	AE	1995	Lot 73; posthole
773	AF	1995	Lot 73; posthole
774	AG	1995	Lot 73; posthole
775	AH	1995	Lot 73; posthole
776	AI	1995	Lot 73; posthole
777	AJ	1995	Lot 73; posthole
778	AK	1995	Lot 73; posthole
779	AL	1995	Lot 73; posthole
780	AM	1995	Lot 73; posthole
781	AN	1995	Lot 73; posthole
782	AO	1995	Lot 73; posthole
783	AP	1995	Lot 73; posthole
784	AQ	1995	Lot 73; posthole
785	AR	1995	Lot 73; posthole
786	AS	1995	Lot 73; posthole
787	AT	1995	Lot 73; posthole

Feature	Field Designation	Year Investigated	Comments
788	AU	1995	Lot 73; posthole
789	AV	1995	Lot 73; posthole
790	AW	1995	Lot 73; posthole
791	AX	1995	Lot 73; posthole
792	AY	1995	Lot 73; posthole
793	AZ	1995	Lot 73; posthole
794	BA	1995	Lot 73; rock-lined posthole
795	BB	1995	Lot 73; posthole
796	BC	1995	Lot 73; posthole
797	BD	1995	Lot 73; posthole
798	BE	1995	Lot 73; refuse-filled pit
799	BF	1995	Lot 73; ceramic vessel
800	BG	1995	Lot 73; posthole
801	BH	1995	Lot 73; posthole
802	BI	1995	Lot 73; posthole
803	BJ	1995	Lot 73; posthole
804	BK	1995	Lot 73; posthole
805	BL	1995	Lot 73; posthole
806	BM	1995	Lot 73; posthole
807	BN	1995	Lot 73; posthole
808	BO	1995	Lot 73; posthole
809	BP	1995	Lot 73; posthole
810	BQ	1995	Lot 73; posthole
811	BR	1995	Lot 73; posthole
812	BS	1995	Lot 73; posthole
813	BT	1995	Lot 73; posthole
814	BU	1995	Lot 73; posthole
815	BV	1995	Lot 73; posthole
816	BW	1995	Lot 73; posthole
817	BX	1995	Lot 73; refuse-filled pit
818	LM	1994	burial removal (Lots 74-78); posthole
819	YL	1994	burial removal (Lots 74-78); posthole, bastion
820	YM	1994	burial removal (Lots 74-78); posthole, bastion
821	YN	1994	burial removal (Lots 74-78); posthole, bastion
822		1994	burial removal (Lots 74-78); posthole, palisade
823		1994	burial removal (Lots 74-78); posthole, palisade
824		1994	burial removal (Lots 74-78); posthole, palisade
825		1994	burial removal (Lots 74-78); posthole, palisade
826		1994	burial removal (Lots 74-78); posthole, palisade
827		1994	burial removal (Lots 74-78); posthole, palisade
828		1994	burial removal (Lots 74-78); posthole, palisade
829		1994	burial removal (Lots 74-78); posthole, palisade
830		1994	burial removal (Lots 74-78); posthole, palisade
831		1994	burial removal (Lots 74-78); posthole, palisade
832		1994	burial removal (Lots 74-78); posthole, palisade
833		1994	burial removal (Lots 74-78); posthole, palisade
834		1994	burial removal (Lots 74-78); posthole, palisade
835		1994	burial removal (Lots 74-78); posthole, palisade
836		1994	burial removal (Lots 74-78); posthole, palisade
837		1994	burial removal (Lots 74-78); posthole, palisade
838		1994	burial removal (Lots 74-78); posthole, palisade
839		1994	burial removal (Lots 74-78); posthole, palisade
840		1994	burial removal (Lots 74-78); posthole, palisade
841		1994	burial removal (Lots 74-78); posthole, palisade
842		1994	burial removal (Lots 74-78); posthole, palisade
843		1994	burial removal (Lots 74-78); posthole, palisade
844		1994	burial removal (Lots 74-78); posthole, palisade

Feature	Field Designation	Year Investigated	Comments
845		1994	burial removal (Lots 74-78); posthole, palisade
846		1994	burial removal (Lots 74-78); posthole, palisade
847		1994	burial removal (Lots 74-78); posthole, palisade
848		1994	burial removal (Lots 74-78); posthole, palisade
849		1994	burial removal (Lots 74-78); posthole, palisade
850		1994	burial removal (Lots 74-78); posthole, palisade
851		1994	burial removal (Lots 74-78); posthole, palisade
852		1994	burial removal (Lots 74-78); posthole, palisade
853		1994	burial removal (Lots 74-78); posthole, palisade
854		1994	burial removal (Lots 74-78); posthole, palisade
855		1994	burial removal (Lots 74-78); posthole, palisade
856		1994	burial removal (Lots 74-78); posthole, palisade
857		1994	burial removal (Lots 74-78); posthole, palisade
858		1994	burial removal (Lots 74-78); posthole, palisade
859		1994	burial removal (Lots 74-78); posthole, palisade
860		1994	burial removal (Lots 74-78); posthole, palisade
861		1994	burial removal (Lots 74-78); posthole, palisade
862		1994	burial removal (Lots 74-78); posthole, palisade
863	HU, pit 10	1994	burial removal (Lots 74-78); refuse-filled pit
864		1994	burial removal (Lots 74-78); posthole, bastion
865		1994	burial removal (Lots 74-78); posthole, bastion
866		1994	burial removal (Lots 74-78); posthole, bastion
867	george	1994	burial removal (Lots 74-78); posthole, bastion
868	roger	1994	burial removal (Lots 74-78); posthole, bastion
869	ellis	1994	burial removal (Lots 74-78); posthole, bastion
870		1994	burial removal (Lots 74-78); posthole, bastion
871		1994	burial removal (Lots 74-78); posthole, bastion
872	toye	1994	burial removal (Lots 74-78); posthole, bastion
873		1994	burial removal (Lots 74-78); posthole, bastion
874		1994	burial removal (Lots 74-78); posthole, bastion
875		1994	burial removal (Lots 74-78); posthole, bastion
876		1994	burial removal (Lots 74-78); posthole, bastion
877		1994	burial removal (Lots 74-78); posthole, bastion
878		1994	burial removal (Lots 74-78); posthole, bastion
879		1994	burial removal (Lots 74-78); posthole, bastion
880		1994	burial removal (Lots 74-78); refuse-filled pit
881	unid road cut pit	1994	early subdivision road cut; maize-filled depression/pit
882	unid ceramic vessel	1994	early subdivision road cut; ceramic vessel section

APPENDIX B

LIST OF CORRECTED BURIAL NUMBERS AND ORIGINAL FIELD DESIGNATIONS FROM THE 1993–1995 INVESTIGATIONS AT THE RUTHERFORD-KIZER SITE

Michael C. Moore

Burial	Field Designation	Year Investigated	Comments
1	DOA, Burial 1	1993	Strip Block A; burial not removed; greenspace
2	DOA, Burial 2	1993	Strip Block A; burial not removed; greenspace
3	DOA, Burial 3	1993	Strip Block A; burial not removed; greenspace
4	DOA, Burial 4	1993	Strip Block A; burial not removed; greenspace
5	DOA, Burial 5	1993	Strip Block A; burial not removed; greenspace
6	DOA, Feature 16	1993	Strip Block B; burial not removed; greenspace
7	DOA, Feature 133	1993	Strip Block B; burial not removed; greenspace
8	DOA, Feature 134	1993	Strip Block B; burial not removed; greenspace
9	DOA, Feature 135	1993	Strip Block B; burial not removed; greenspace
10	DOA, Feature 155	1993	Strip Block B; burial not removed; greenspace
11A	DuVall, Burial 1	1994	DuVall & Associates; burial removal (lot 74)
11B	DuVall, Burial 1	1994	DuVall & Associates; burial removal (lot 74)
12A	DuVall, Burial 2	1994	DuVall & Associates; burial removal (lot 74)
12B	DuVall, Burial 2	1994	DuVall & Associates; burial removal (lot 74)
13	DuVall, Burial 3	1994	DuVall & Associates; burial removal (lot 74)
14	DuVall, Burial 4	1994	DuVall & Associates; burial removal (unknown)
15	DuVall, Burial 5	1994	DuVall & Associates; burial removal (old road cut)
16	DuVall, Burial 6	1994	DuVall & Associates; burial removal (lot 78)
17	DuVall, Burial 7	1994	DuVall & Associates; burial removal (lot 74)
18	DuVall, Burial 8	1994	DuVall & Associates; burial removal (lot 78)
19	DuVall, Burial 9	1994	DuVall & Associates; burial removal (lot 78)
20	DuVall, Burial 10	1994	DuVall & Associates; burial removal (lot 74)
21	DuVall, Burial 11	1994	DuVall & Associates; burial removal (lot 74)
22	DuVall, Burial 12	1994	DuVall & Associates; burial removal (lot 74)
23	DuVall, Burial 13	1994	DuVall & Associates; burial removal (lot 74)
24	DuVall, Burial 14	1994	DuVall & Associates; burial removal (old road cut)
25	DuVall, Burial 15	1994	DuVall & Associates; burial removal (lot 74)
26	DuVall, Burial 16	1994	DuVall & Associates; burial removal (lot 74)
27	DuVall, Burial 17	1994	DuVall & Associates; burial removal (lot 74)
28	DuVall, Burial 18	1994	DuVall & Associates; burial removal (lot 76)
29	DuVall, Burial 19	1994	DuVall & Associates; burial removal (lot 76)
30	DuVall, Burial 20	1994	DuVall & Associates; burial removal (lot 76)
31	DuVall, Burial 21	1994	DuVall & Associates; burial removal (lot 76)
32	DuVall, Burial 22	1994	DuVall & Associates; burial removal (lot 76)
33	DuVall, Burial 23	1994	DuVall & Associates; burial removal (lot 76)
34	DuVall, Burial 24	1994	DuVall & Associates; burial removal (old road cut)
35	DuVall, Burial 25	1994	DuVall & Associates; burial removal (old road cut)
36	DuVall, Burial 26	1994	DuVall & Associates; burial removal (old road cut)
37	DuVall, Burial 27	1994	DuVall & Associates; burial removal (old road cut)
38	DuVall, Burial 28	1994	DuVall & Associates; burial removal (old road cut)
39	DuVall, Burial 29	1994	DuVall & Associates; burial removal (old road cut)
40	DuVall, Burial 30	1994	DuVall & Associates; burial removal (old road cut)
41	DuVall, Burial 31	1994	DuVall & Associates; burial removal (lot 76)
42	DuVall, Burial 32	1994	DuVall & Associates; burial removal (lot 76)
43	DuVall, Burial 33	1994	DuVall & Associates; burial removal (lot 76)

Burial	Field Designation	Year Investigated	Comments
44	DuVall, Burial 34	1994	DuVall & Associates; burial removal (lot 76)
45	DuVall, Burial 35	1994	DuVall & Associates; burial removal (lot 76)
46	DuVall, Burial 36	1994	DuVall & Associates; burial removal (lot 76)
47	DuVall, Burial 37	1994	DuVall & Associates; burial removal (lot 76)
48A	DuVall, Burial 38	1994	DuVall & Associates; burial removal (lot 76)
48B	DuVall, Burial 38	1994	DuVall & Associates; burial removal (lot 76)
49	DuVall, Burial 39	1994	DuVall & Associates; burial removal (lot 76)
50	DuVall, Burial 40	1994	DuVall & Associates; burial removal (lot 76)
51	DuVall, Burial 41	1994	DuVall & Associates; burial removal (lot 76)
52	DuVall, Burial 42	1994	DuVall & Associates; burial removal (lot 76)
53	DuVall, Burial 43	1994	DuVall & Associates; burial removal (lot 76)
54	DuVall, Burial 44	1994	DuVall & Associates; burial removal (lot 76)
55	DuVall, Burial 45	1994	DuVall & Associates; burial removal (lot 76)
56	DuVall, Burial 46	1994	DuVall & Associates; burial removal (lot 76)
57	DuVall, Burial 47	1994	DuVall & Associates; burial removal (lot 76)
58	DuVall, Burial 48	1994	DuVall & Associates; burial removal (lot 76)
59	DuVall, Burial 49	1994	DuVall & Associates; burial removal (lot 76)
60	DuVall, Burial 50	1994	DuVall & Associates; burial removal (lot 76)
61	DuVall, Burial 51	1994	DuVall & Associates; burial removal (lot 76)
62	DuVall, Burial 52	1994	DuVall & Associates; burial removal (lot 76)
63	DuVall, Burial 53	1994	DuVall & Associates; burial removal (lot 76)
64	DuVall, Burial 54	1994	DuVall & Associates; burial removal (lot 76)
65	palisade trench, Burial 55	1994	Div of Archaeology; burial removal (lot 76)
66	pit, Burial 56	1994	Div of Archaeology; burial removal (lot 76)
67	DOA, Burial 1	1995	Div of Archaeology; burial removal (lot 85)
68	DOA, Burial 2	1995	Div of Archaeology; burial removal (lot 85)
69	DOA, Burial 3	1995	Div of Archaeology; burial removal (lot 85)
70	DOA, Burial 4	1995	Div of Archaeology; burial removal (lot 85)
71	DOA, Burial 5	1995	Div of Archaeology; burial removal (lot 85)
72	DOA, Burial 6	1995	Div of Archaeology; burial removal (lot 85)
73	DOA, Burial 7	1995	Div of Archaeology; burial removal (lot 85)
74	DOA, Burial 8	1995	Div of Archaeology; burial removal (lot 85)
75	DOA, Burial 9	1995	Div of Archaeology; burial removal (lot 85)
76	DOA, Burial 10	1995	Div of Archaeology; burial removal (lot 85)
77	DOA, Burial 11	1995	Div of Archaeology; burial removal (lot 85)
78	DOA, Burial 12	1995	Div of Archaeology; burial removal (lot 85)
79	DOA, Burial 13	1995	Div of Archaeology; burial removal (lot 85)
80A	DOA, Burial 14	1995	Div of Archaeology; burial removal (lot 85)
80B	DOA, Burial 14	1995	Div of Archaeology; burial removal (lot 85)
81	DOA, Burial 15	1995	Div of Archaeology; burial removal (lot 85)
82	DOA, Burial 16	1995	Div of Archaeology; burial removal (lot 85)
83	DOA, Burial 17	1995	Div of Archaeology; burial removal (lot 85)
84	DOA, Burial 18	1995	Div of Archaeology; burial removal (lot 85)
85A	DOA, Burial 19	1995	Div of Archaeology; burial removal (lot 85)
85B	DOA, Burial 19	1995	Div of Archaeology; burial removal (lot 85)
86	DOA, Burial 20	1995	Div of Archaeology; burial removal (lot 85)
87	DOA, Burial 21	1995	Div of Archaeology; burial removal (lot 85)
88	DOA, Burial 22	1995	Div of Archaeology; burial removal (lot 85)
89	DOA, Burial 23	1995	Div of Archaeology; burial removal (lot 85)
90	DOA, Burial 24	1995	Div of Archaeology; burial removal (lot 85)
91	DOA, Burial 25	1995	Div of Archaeology; burial removal (lot 85)

APPENDIX C

FEATURE DESCRIPTIONS

Michael C. Moore

A total of 882 feature designations were assigned during the 1993–1995 fieldwork at Rutherford-Kizer. Nine features (16, 133, 134, 135, 155, 196, 310, 358, 674) were defined as burials during the field investigations. Information on these burials has been presented in Appendix D. Another seven designations (14, 125, 219, 220, 246, 269, and 270) were recognized as modern disturbances (such as rodent burrows or tree roots).

The vast majority of cultural, non-mortuary features (*n*=798) were postmolds associated with the palisade lines, bastions, and structures. Rather than provide a written description for each postmold, a summary of attributes has been provided in Table 28. A moderate number (*n*=61) of circular and oval pits were also exposed across the site area, along with several hearths, isolated ceramic vessels, rock concentration, biface cache, and maize-filled depression/pit. These particular features have been described in more detail below.

Table 28. A Summary List of Postmolds for the 1993–1995 Investigations.*

Feature	Plan-view	Diameter	Length	Width	Depth	Comments
1	circular	16.0	-	-	19.0	strip block B
2	circular	22.0	-	-	12.5	strip block B
3	circular	19.0	-	-	26.0	strip block B
4	circular	18.0	-	-	18.0	strip block B
5	circular	19.0	-	-	18.0	strip block B
6	circular	23.5	-	-	15.0	strip block B
7	circular	18.0	-	-	15.0	strip block B
8	oval	-	21.0	19.0	18.0	strip block B
9	circular	22.0	-	-	14.0	strip block B
10	circular	16.0	-	-	10.0	strip block B
11	circular	24.0	-	-	10.0	strip block B
12	irregular	-	50.0	39.0	35.0	strip block B
13	circular	40.0	-	-	22.0	strip block B; irregular base
17	circular	32.0	-	-	33.0	strip block B
19	circular	33.0	-	-	11.0	strip block B
21	circular	38.0	-	-	19.0	strip block B
22	circular	36.0	-	-	10.0	strip block B
23	oval	-	22.0	18.0	8.0	strip block B
24	circular	18.0	-	-	10.0	strip block B
25	circular	38.0	-	-	31.0	strip block B; irregular base
26	circular	23.0	-	-	24.0	strip block B
27	circular	21.0	-	-	38.0	strip block B
28	circular	29.0	-	-	26.0	strip block B; double post with Feature 29
29	circular	28.0	-	-	22.0	strip block B; double post with Feature 28
30	circular	22.0	-	-	23.0	strip block B
31	circular	18.0	-	-	9.0	strip block B
32	circular	18.0	-	-	8.0	strip block B; double post with Feature 33
33	circular	20.0	-	-	4.0	strip block B; double post with Feature 32

Table 28. A Summary List of Postmolds for the 1993–1995 Investigations (continued).*

Feature	Plan-view	Diameter	Length	Width	Depth	Comments
34	circular	27.0	-	-	17.0	strip block B
35	circular	22.0	-	-	18.0	strip block B
37	oval	-	36.0	31.0	28.0	strip block B; irregular base
38	circular	24.0	-	-	28.0	strip block B
39	oval	-	24.0	19.0	9.0	strip block B
40	oval	-	23.0	21.0	13.0	strip block B; irregular base
41	circular	23.0	-	-	35.0	strip block B
42	circular	20.0	-	-	18.0	strip block B
43	circular	22.0	-	-	10.0	strip block B
44	circular	24.0	-	-	36.0	strip block B
45	oval	-	24.0	16.0	37.0	strip block B
46	circular	20.0	-	-	24.0	strip block B
47	circular	18.0	-	-	16.0	strip block B
48	circular	19.0	-	-	17.0	strip block B
49	circular	20.0	-	-	43.0	strip block B
50	oval	-	30.0	24.0	12.0	strip block B; double post with Feature 51
51	oval	-	29.0	21.0	20.0	strip block B; double post with Feature 50
52	circular	20.0	-	-	25.0	strip block B
53	oval	-	26.0	18.0	14.0	strip block B
54	circular	17.0	-	-	34.0	strip block B
55	circular	20.0	-	-	30.5	strip block B
56	circular	21.0	-	-	34.0	strip block B
57	irregular	-	24.0	18.0	27.0	strip block B; cluster of three posts?
58	circular	21.0	-	-	53.0	strip block B
59	circular	23.0	-	-	30.0	strip block B
60	circular	23.0	-	-	42.5	strip block B
61	circular	26.0	-	-	42.0	strip block B
63	circular	22.0	-	-	8.5	strip block B
64	circular	22.0	-	-	20.0	strip block B
65	circular	19.0	-	-	9.5	strip block B
66	circular	24.0	-	-	30.0	strip block B
67	circular	26.0	-	-	23.5	strip block B
68	circular	21.0	-	-	39.0	strip block B
69	circular	25.0	-	-	36.0	strip block B
70	circular	24.0	-	-	46.5	strip block B
71	circular	26.0	-	-	32.0	strip block B
72	circular	30.0	-	-	12.0	strip block B
73	circular	19.0	-	-	12.5	strip block B
74	circular	16.0	-	-	10.0	strip block B
75	circular	34.0	-	-	7.0	strip block B; possible small pit
76	circular	40.0	-	-	27.0	strip block B
77	circular	32.0	-	-	11.0	strip block B
78	circular	19.0	-	-	12.5	strip block B
79	circular	18.0	-	-	14.0	strip block B
80	circular	19.0	-	-	13.0	strip block B
81	circular	24.0	-	-	32.0	strip block B
82	oval	-	29.0	21.0	31.0	strip block B
83	oval	-	53.0	39.0	24.0	strip block B; double post with Feature 93
84	circular	23.0	-	-	30.0	strip block B
85	circular	26.0	-	-	7.0	strip block B
86	circular	35.0	-	-	17.0	strip block B; double post with Feature 87
87	oval	-	33.0	28.0	20.5	strip block B; double post with Feature 86
88	circular	31.0	-	-	47.0	strip block B
90	oval	-	29.0	24.0	42.0	strip block B
91	circular	27.0	-	-	57.0	strip block B
92	circular	25.0	-	-	41.0	strip block B

Table 28. A Summary List of Postmolds for the 1993–1995 Investigations (continued).*

Feature	Plan-view	Diameter	Length	Width	Depth	Comments
93	circular	33.0	-	-	34.0	strip block B; double post with Feature 83
94	circular	22.0	-	-	19.0	strip block B
95	circular	36.0	-	-	30.0	strip block B; rock-lined on northern half
96	circular	40.0	-	-	30.0	strip block B; rock-lined
97	circular	30.0	-	-	18.5	strip block B
98	circular	19.0	-	-	34.0	strip block B
99	circular	25.0	-	-	20.0	Strip block B
100	oval	-	49.0	24.0	14.0	strip block B
102	oval	-	29.0	20.0	20.5	strip block B
103	circular	15.0	-	-	10.0	strip block B
104	oval	-	26.0	20.0	17.0	strip block B
105	oval	-	32.0	27.0	36.0	strip block B
106	oval	-	39.0	36.0	25.5	strip block B
107	circular	42.0	-	-	22.0	strip block B; possible small pit
108	oval	-	31.0	23.0	18.0	strip block B
109	circular	29.0	-	-	45.0	strip block B; double post with Feature 110
110	oval	-	50.0	40.0	32.0	strip block B; double post with Feature 109
111	circular	23.0	-	-	15.0	strip block B
112	circular to oval	-	53.0	47.0	30.0	strip block B; possible small pit
113	circular	24.0	-	-	11.0	strip block B; double post with Feature 115
114	circular	21.0	-	-	13.0	strip block B; rock-lined on northeast side
115	circular	19.0	-	-	9.0	strip block B; double post with Feature 115
116	circular to oval	29.0	-	-	12.0	strip block B
117	circular	29.0	-	-	16.0	strip block B
118	oval	-	44.0	38.0	16.0	strip block B
119	circular to oval	37.0	-	-	18.0	strip block B
120	oval	-	39.0	29.0	16.0	strip block B; rock-lined on west side
121	circular	19.0	-	-	13.0	strip block B
122	circular	21.0	-	-	30.0	strip block B
123	circular	17.0	-	-	38.0	strip block B
124	circular	23.0	-	-	34.0	strip block B
126	circular	20.0	-	-	36.0	strip block B
127	circular	19.0	-	-	17.0	strip block B
128	circular	19.0	-	-	34.0	strip block B
129	circular	22.0	-	-	40.0	strip block B
130	circular	17.0	-	-	45.0	strip block B
131	circular	25.0	-	-	38.0	strip block B; post in Feature 101
132	circular	37.0	-	-	35.0	strip block B; possible small pit
136	circular	-	-	-	-	strip block B; small, not excavated
137	circular	-	-	-	-	strip block B; small, not excavated
138	circular	27.0	-	-	15.0	strip block B; post in Feature 101
139	oval	-	40.0	24.0	34.0	strip block B; post in Feature 101
140	circular	30.0	-	-	24.0	strip block B
141	circular	16.0	-	-	28.0	strip block B
142	circular	18.0	-	-	10.0	strip block B
143	oval	-	21.0	17.0	13.5	strip block B
144	circular	17.0	-	-	11.0	strip block B
145	circular	18.0	-	-	7.0	strip block B
146	circular	22.0	-	-	25.0	strip block B
147	circular	23.0	-	-	8.0	strip block B
148	oval	-	18.0	14.0	7.0	strip block B
149	circular	18.0	-	-	11.0	strip block B
150	circular	17.0	-	-	26.0	strip block B

Table 28. A Summary List of Postmolds for the 1993–1995 Investigations (continued).*

Feature	Plan-view	Diameter	Length	Width	Depth	Comments
151	oval	-	36.0	26.0	11.0	strip block B
152	circular	18.0	-	-	25.0	strip block B
153	circular	18.0	-	-	20.0	strip block B
154	circular	18.0	-	-	15.0	strip block B
156	circular	28.0	-	-	23.0	strip block B; post in Feature 36
157	circular	26.0	-	-	23.0	strip block B; post in Feature 20
158	circular	36.0	-	-	6.0	strip block B; post in Feature 101
159	circular	13.0	-	-	-	burial removal; not excavated; Structure 2
160	circular	16.0	-	-	-	burial removal; not excavated; Structure 2
161	circular	14.0	-	-	-	burial removal; not excavated; Structure 2
162	circular	16.0	-	-	-	burial removal; not excavated; Structure 2
163	circular	15.0	-	-	-	burial removal; not excavated; Structure 2
164	circular	18.0	-	-	-	burial removal; not excavated; Structure 2
165	circular	16.0	-	-	-	burial removal; not excavated; Structure 2
166	circular	16.0	-	-	-	burial removal; not excavated; Structure 2
167	circular	22.0	-	-	-	burial removal; not excavated; Structure 2
168	circular	18.0	-	-	-	burial removal; not excavated; Structure 2
169	circular	18.0	-	-	-	burial removal; not excavated; Structure 2
170	circular	20.0	-	-	-	burial removal; not excavated; Structure 2
171	circular	16.0	-	-	-	burial removal; not excavated; Structure 2
172	circular	14.0	-	-	-	burial removal; not excavated; Structure 2
173	circular	13.0	-	-	-	burial removal; not excavated; Structure 2
174	circular	13.0	-	-	-	burial removal; not excavated; Structure 2
175	circular	10.0	-	-	-	burial removal; not excavated; Structure 2
176	circular	26.0	-	-	-	burial removal; not excavated; Structure 2
177	circular	14.0	-	-	-	burial removal; not excavated; Structure 2
178	circular	21.0	-	-	-	burial removal; not excavated; Structure 2
179	circular	29.0	-	-	-	burial removal; not excavated; Structure 2
180	circular	32.0	-	-	-	burial removal; not excavated; Structure 2
181	circular	30.0	-	-	-	burial removal; not excavated; Structure 2
182	circular	13.0	-	-	-	burial removal; not excavated; Structure 2
183	circular	14.0	-	-	-	burial removal; not excavated; Structure 2
184	circular	30.0	-	-	-	burial removal; not excavated; Structure 2
185	circular	30.0	-	-	-	burial removal; not excavated
186	circular	25.0	-	-	-	burial removal; not excavated
187	circular	24.0	-	-	-	burial removal; not excavated
188	circular	25.0	-	-	-	burial removal; not excavated
189	circular	30.0	-	-	-	burial removal; not excavated
190	circular	20.0	-	-	-	burial removal; not excavated
191	circular	12.0	-	-	-	burial removal; not excavated
192	circular	14.0	-	-	-	burial removal; not excavated
197	circular	10.0	-	-	-	burial removal; not excavated; Structure 2
198	circular	10.0	-	-	-	burial removal; not excavated; Structure 2
199	circular	13.0	-	-	-	burial removal; not excavated; Structure 2
200	circular	12.0	-	-	-	burial removal; not excavated; Structure 3
201	circular	14.0	-	-	-	burial removal; not excavated; Structure 3
202	circular	12.0	-	-	-	burial removal; not excavated; Structure 3
203	circular	13.0	-	-	-	burial removal; not excavated; Structure 3
204	circular	10.0	-	-	-	burial removal; not excavated; Structure 3
205	circular	12.0	-	-	-	burial removal; not excavated; Structure 3
206	circular	14.0	-	-	-	burial removal; not excavated; Structure 3
207	circular	14.0	-	-	-	burial removal; not excavated; Structure 3
208	circular	14.0	-	-	-	burial removal; not excavated; Structure 3
210	circular	12.0	-	-	-	burial removal; not excavated; Structure 3
211	circular	14.0	-	-	-	burial removal; not excavated; Structure 3
212	circular	20.0	-	-	-	burial removal; not excavated; Structure 3

Table 28. A Summary List of Postmolds for the 1993–1995 Investigations (continued).*

Feature	Plan-view	Diameter	Length	Width	Depth	Comments
213	circular	10.0	-	-	-	burial removal; not excavated; Structure 3
214	circular	10.0	-	-	-	burial removal; not excavated; Structure 3
215	circular	10.0	-	-	-	burial removal; not excavated; Structure 3
216	circular	14.0	-	-	-	burial removal; not excavated; Structure 3
217	circular	12.0	-	-	-	burial removal; not excavated; Structure 3
218	circular	12.0	-	-	-	burial removal; not excavated; Structure 3
221	circular	12.0	-	-	-	burial removal; not excavated; Structure 3
222	circular	12.0	-	-	-	burial removal; not excavated; Structure 3
223	circular	12.0	-	-	-	burial removal; not excavated; Structure 3
224	circular	12.0	-	-	-	burial removal; not excavated; Structure 3
225	circular	12.0	-	-	-	burial removal; not excavated; Structure 3
226	circular	12.0	-	-	-	burial removal; not excavated; Structure 3
227	circular	12.0	-	-	-	burial removal; not excavated; Structure 3
228	circular	12.0	-	-	-	burial removal; not excavated; Structure 3
229	circular	10.0	-	-	-	burial removal; not excavated; Structure 3
230	circular	12.0	-	-	-	burial removal; not excavated; Structure 3
231	circular	10.0	-	-	-	burial removal; not excavated; Structure 3
232	circular	30.0	-	-	-	burial removal; not excavated; Structure 4
233	circular	30.0	-	-	-	burial removal; not excavated; Structure 4
234	circular	35.0	-	-	-	burial removal; not excavated; Structure 4
235	circular	30.0	-	-	-	burial removal; not excavated; Structure 4
236	circular	25.0	-	-	-	burial removal; not excavated; Structure 4
237	circular	20.0	-	-	-	burial removal; not excavated; Structure 4
238	circular	12.0	-	-	-	burial removal; not excavated; Structure 4
239	circular	10.0	-	-	-	burial removal; not excavated; Structure 4
240	circular	30.0	-	-	-	burial removal; not excavated; Structure 4
241	circular	10.0	-	-	-	burial removal; not excavated; Structure 4
242	circular	12.0	-	-	-	burial removal; not excavated; Structure 4
243	circular	20.0	-	-	-	burial removal; not excavated; Structure 4
245	circular	30.0	-	-	-	burial removal; not excavated; Structure 4
247	circular	12.0	-	-	-	burial removal; not excavated; Structure 4
248	circular	12.0	-	-	-	burial removal; not excavated; Structure 4
249	circular	12.0	-	-	-	burial removal; not excavated; Structure 4
250	circular	10.0	-	-	-	burial removal; not excavated; Structure 4
251	circular	10.0	-	-	-	burial removal; not excavated; Structure 4
252	circular	12.0	-	-	-	burial removal; not excavated; Structure 4
253	circular	10.0	-	-	-	burial removal; not excavated; Structure 4
254	circular	12.0	-	-	-	burial removal; not excavated; Structure 4
255	circular	10.0	-	-	-	burial removal; not excavated; Structure 4
256	circular	10.0	-	-	-	burial removal; not excavated; Structure 6
257	circular	20.0	-	-	-	burial removal; not excavated; Structure 6
258	circular	18.0	-	-	-	burial removal; not excavated; Structure 6
259	circular	18.0	-	-	-	burial removal; not excavated; Structure 6
260	circular	30.0	-	-	-	burial removal; not excavated; Structure 6
261	circular	10.0	-	-	-	burial removal; not excavated; Structure 6
262	circular	17.0	-	-	-	burial removal; not excavated; Structure 6
263	circular	18.0	-	-	-	burial removal; not excavated; Structure 6
264	circular	12.0	-	-	-	burial removal; not excavated; Structure 6
265	circular	12.0	-	-	-	burial removal; not excavated; Structure 6
266	circular	20.0	-	-	-	burial removal; not excavated; Structure 6
267	circular	12.0	-	-	-	burial removal; not excavated; Structure 6
268	circular	14.0	-	-	-	burial removal; not excavated; Structure 6
271	circular	20.0	-	-	-	burial removal; not excavated; Structure 6
272	circular	25.0	-	-	-	burial removal; not excavated; Structure 6
273	circular	12.0	-	-	-	burial removal; not excavated; Structure 6
274	circular	12.0	-	-	-	burial removal; not excavated; Structure 6

Table 28. A Summary List of Postmolds for the 1993–1995 Investigations (continued).*

Feature	Plan-view	Diameter	Length	Width	Depth	Comments
275	circular	10.0	-	-	-	burial removal; not excavated; Structure 6
276	circular	12.0	-	-	-	burial removal; not excavated; Structure 6
277	circular	12.0	-	-	-	burial removal; not excavated; Structure 6
278	circular	18.0	-	-	-	burial removal; not excavated; Structure 6
279	circular	15.0	-	-	-	burial removal; not excavated; Structure 6
280	circular	20.0	-	-	-	burial removal; not excavated; Structure 6
281	circular	14.0	-	-	-	burial removal; not excavated; Structure 6
282	circular	15.0	-	-	-	burial removal; not excavated; Structure 6
283	circular	12.0	-	-	-	burial removal; not excavated; Structure 6
284	circular	10.0	-	-	-	burial removal; not excavated; Structure 6
285	circular	20.0	-	-	-	burial removal; not excavated; Structure 5
286	circular	18.0	-	-	-	burial removal; not excavated; Structure 5
287	circular	20.0	-	-	-	burial removal; not excavated; Structure 5
288	circular	22.0	-	-	-	burial removal; not excavated; Structure 5
289	circular	15.0	-	-	-	burial removal; not excavated; Structure 5
290	circular	20.0	-	-	-	burial removal; not excavated; Structure 5
291	circular	12.0	-	-	-	burial removal; not excavated; Structure 5
292	circular	18.0	-	-	-	burial removal; not excavated; Structure 5
293	circular	18.0	-	-	-	burial removal; not excavated; Structure 5
294	circular	20.0	-	-	-	burial removal; not excavated; Structure 5
295	circular	18.0	-	-	-	burial removal; not excavated; Structure 5
296	circular	20.0	-	-	-	burial removal; not excavated; Structure 5
297	circular	25.0	-	-	-	burial removal; not excavated; Structure 5
298	circular	22.0	-	-	-	burial removal; not excavated; Structure 5
299	circular	20.0	-	-	-	burial removal; not excavated; Structure 5
300	circular	22.0	-	-	-	burial removal; not excavated; Structure 5
302	circular	20.0	-	-	-	burial removal; not excavated
303	circular	20.0	-	-	-	burial removal; not excavated
304	circular	10.0	-	-	-	burial removal; not excavated
305	circular	10.0	-	-	-	burial removal; not excavated
306	circular	20.0	-	-	-	burial removal; not excavated
307	circular	20.0	-	-	-	burial removal; not excavated
308	circular	20.0	-	-	-	burial removal; not excavated
309	circular	18.0	-	-	-	burial removal; not excavated
311	circular	22.0	-	-	-	burial removal; not excavated
312	circular	26.0	-	-	-	burial removal; not excavated
313	circular	12.0	-	-	-	burial removal; not excavated
314	circular	22.0	-	-	-	burial removal; not excavated; Structure 5
315	circular	14.0	-	-	-	burial removal; not excavated
316	circular	15.0	-	-	-	burial removal; not excavated
317	circular	17.0	-	-	-	burial removal; not excavated
318	circular	14.0	-	-	-	burial removal; not excavated; bastion
319	circular	15.0	-	-	-	burial removal; not excavated; bastion
320	circular	15.0	-	-	-	burial removal; not excavated; bastion
321	circular	20.0	-	-	-	burial removal; not excavated; bastion
322	circular	13.0	-	-	-	burial removal; not excavated; bastion
323	circular	25.0	-	-	-	burial removal; not excavated; bastion
324	circular	16.0	-	-	-	burial removal; not excavated; bastion
325	circular	19.0	-	-	-	burial removal; not excavated; bastion
326	circular	18.0	-	-	-	burial removal; not excavated; palisade
327	circular	12.0	-	-	-	burial removal; not excavated; palisade
328	circular	22.0	-	-	-	burial removal; not excavated; palisade
329	circular	17.0	-	-	-	burial removal; not excavated; palisade
330	circular	20.0	-	-	-	burial removal; not excavated; palisade
331	circular	16.0	-	-	-	burial removal; not excavated; bastion
332	circular	13.0	-	-	-	burial removal; not excavated; bastion

Table 28. A Summary List of Postmolds for the 1993–1995 Investigations (continued).*

Feature	Plan-view	Diameter	Length	Width	Depth	Comments
333	circular	16.0	-	-	-	burial removal; not excavated; bastion
334	circular	20.0	-	-	-	burial removal; not excavated; bastion
335	circular	23.0	-	-	-	burial removal; not excavated; bastion
336	circular	14.0	-	-	-	burial removal; not excavated; bastion
337	circular	14.0	-	-	-	burial removal; not excavated; bastion
338	circular	20.0	-	-	-	burial removal; not excavated; bastion
339	circular	20.0	-	-	-	burial removal; not excavated; bastion
340	circular	15.0	-	-	-	burial removal; not excavated; bastion
341	circular	14.0	-	-	-	burial removal; not excavated; bastion
342	circular	15.0	-	-		burial removal; not excavated; bastion
343	circular	15.0	-	-	-	burial removal; not excavated; bastion
344	circular	21.0	-	-	-	burial removal; not excavated; bastion
345	circular	19.0	-	-	-	burial removal; not excavated; palisade
346	circular	22.0	-	-	-	burial removal; not excavated; palisade
347	circular	14.0	-	-	-	burial removal; not excavated; palisade
348	circular	16.0	-	-	-	burial removal; not excavated; palisade
349	circular	17.0	-	-	-	burial removal; not excavated; palisade
350	circular	18.0	-	-	-	burial removal; not excavated; palisade
351	circular	14.0	-	-	-	burial removal; not excavated; palisade
352	circular	23.0	-	-	-	burial removal; not excavated; palisade
353	circular	22.0	-	-	-	burial removal; not excavated; palisade
354	circular	16.0	-	-	-	burial removal; not excavated; palisade
355	circular	24.0	-	-	-	burial removal; not excavated; palisade
356	circular	16.0	-	-	-	burial removal; not excavated; palisade
357	circular	13.0	-	-	-	burial removal; not excavated; palisade
363	circular	12.0	-	-	-	burial removal; not excavated
364	circular	18.0	-	-	-	burial removal; not excavated
366	circular	14.0	-	-	-	burial removal; not excavated
368	circular	18.0	-	-	-	burial removal; not excavated; palisade?
369	circular	20.0	-	-	-	burial removal; not excavated
370	circular	16.0	-	-	-	burial removal; not excavated
375	circular	12.0	-	-	-	burial removal; not excavated
376	circular	25.0	-	-	-	burial removal; not excavated
377	circular	12.0	-	-	-	burial removal; not excavated
378	circular	15.0	-	-	-	burial removal; not excavated
379	circular	12.0	-	-	-	burial removal; not excavated
380	circular	15.0	-	-	-	burial removal; not excavated
381	circular	20.0	-	-	-	burial removal; not excavated
382	circular	16.0	-	-	-	burial removal; not excavated
383	circular	20.0	-	-	-	burial removal; not excavated
384	circular	20.0	-	-	-	burial removal; not excavated
385	circular	20.0	-	-	-	burial removal; not excavated
386	circular	22.0	-	-	-	burial removal; not excavated
387	circular	22.0	-	-	-	burial removal; not excavated
388	circular	20.0	-	-	-	burial removal; not excavated
389	circular	18.0	-	-	-	burial removal; not excavated
390	circular	25.0	-	-	-	burial removal; not excavated
391	circular	22.0	-	-	-	burial removal; not excavated
393	circular	18.0	-	-	-	burial removal; not excavated
394	circular	22.0	-	-	-	burial removal; not excavated
395	circular	20.0	-	-	-	burial removal; not excavated
396	circular	12.0	-	-	-	burial removal; not excavated
397	circular	35.0	-	-	-	burial removal; not excavated
398	circular	16.0	-	-	-	burial removal; not excavated
399	circular	15.0	-	-	-	burial removal; not excavated
400	circular	20.0	-	-	-	burial removal; not excavated

Table 28. A Summary List of Postmolds for the 1993–1995 Investigations (continued).*

Feature	Plan-view	Diameter	Length	Width	Depth	Comments
401	circular	14.0	-	-	-	burial removal; not excavated
402	circular	12.0	-	-	-	burial removal; not excavated
403	circular	14.0	-	-	-	burial removal; not excavated
404	circular	12.0	-	-	-	burial removal; not excavated
405	circular	12.0	-	-	-	burial removal; not excavated
406	circular	13.0	-	-	-	burial removal; not excavated
407	circular	12.0	-	-	-	burial removal; not excavated
408	circular	20.0	-	-	-	burial removal; not excavated
409	circular	22.0	-	-	-	burial removal; not excavated
410	circular	15.0	-	-	-	burial removal; not excavated
411	circular	10.0	-	-	-	burial removal; not excavated
412	circular	18.0	-	-	-	burial removal; not excavated
413	circular	10.0	-	-	-	burial removal; not excavated
414	circular	10.0	-	-	-	burial removal; not excavated
415	circular	20.0	-	-	-	burial removal; not excavated
416	circular	20.0	-	-	-	burial removal; not excavated
417	circular	20.0	-	-	-	burial removal; not excavated
418	circular	30.0	-	-	-	burial removal; not excavated
419	circular	16.0	-	-	-	burial removal; not excavated
420	circular	13.0	-	-	-	burial removal; not excavated
421	circular	20.0	-	-	-	burial removal; not excavated
422	circular	22.0	-	-	-	burial removal; not excavated
423	circular	12.0	-	-	-	burial removal; not excavated
424	circular	18.0	-	-	-	burial removal; not excavated
426	circular	12.0	-	-	-	burial removal; not excavated
427	circular	22.0	-	-	-	burial removal; not excavated
428	circular	11.0	-	-	-	burial removal; not excavated; Structure 9
429	circular	21.0	-	-	-	burial removal; not excavated; Structure 9
430	circular	12.0	-	-	-	burial removal; not excavated; Structure 9
431	circular	14.0	-	-	-	burial removal; not excavated; Structure 9
432	circular	13.0	-	-	-	burial removal; not excavated; Structure 9
433	circular	28.0	-	-	-	burial removal; not excavated; Structure 9
434	circular	11.0	-	-	-	burial removal; not excavated; Structure 9
435	circular	16.0	-	-	-	burial removal; not excavated; Structure 9
436	circular	10.0	-	-	-	burial removal; not excavated; Structure 9
437	circular	16.0	-	-	-	burial removal; not excavated; Structure 9
438	circular	16.0	-	-	-	burial removal; not excavated; Structure 9
439	circular	13.0	-	-	-	burial removal; not excavated; Structure 9
440	circular	17.0	-	-	-	burial removal; not excavated; Structure 9
441	circular	23.0	-	-	-	burial removal; not excavated; Structure 9?
442	circular	28.0	-	-	-	burial removal; not excavated
443	circular	13.0	-	-	-	burial removal; not excavated
444	circular	25.0	-	-	-	burial removal; not excavated
445	circular	16.0	-	-	-	burial removal; not excavated
446	circular	11.0	-	-	-	burial removal; not excavated
447	circular	13.0	-	-	-	burial removal; not excavated
448	circular	9.0	-	-	-	burial removal; not excavated
449	circular	14.0	-	-	-	burial removal; not excavated
450	circular	13.0	-	-	-	burial removal; not excavated; Structure 10
451	circular	21.0	-	-	-	burial removal; not excavated; Structure 10
452	circular	24.0	-	-	-	burial removal; not excavated; Structure 10
453	circular	28.0	-	-	-	burial removal; not excavated
454	circular	29.0	-	-	-	burial removal; not excavated
455	circular	16.0	-	-	-	burial removal; not excavated
456	circular	15.0	-	-	-	burial removal; not excavated
457	circular	16.0	-	-	-	burial removal; not excavated

Table 28. A Summary List of Postmolds for the 1993–1995 Investigations (continued).*

Feature	Plan-view	Diameter	Length	Width	Depth	Comments
458	circular	34.0	-	-	-	burial removal; not excavated
459	circular	14.0	-	-	-	burial removal; not excavated
460	circular	11.0	-	-	-	burial removal; not excavated
461	circular	11.0	-	-	-	burial removal; not excavated
462	circular	17.0	-	-	-	burial removal; not excavated
463	circular	17.0	-	-	-	burial removal; not excavated; Structure 10
464	circular	16.0	-	-	-	burial removal; not excavated; Structure 9?
465	circular	25.0	-	-	-	burial removal; not excavated; Structure 9
466	circular	13.0	-	-	-	burial removal; not excavated; Structure 9?
467	circular	17.0	-	-	-	burial removal; not excavated; Structure 9
468	circular	17.0	-	-	-	burial removal; not excavated
469	circular	27.0	-	-	-	burial removal; not excavated
470	circular	13.0	-	-	-	burial removal; not excavated
471	circular	12.0	-	-	-	burial removal; not excavated
472	circular	15.0	-	-	-	burial removal; not excavated
473	circular	14.0	-	-	-	burial removal; not excavated
474	circular	11.0	-	-	-	burial removal; not excavated
475	circular	15.0	-	-	-	burial removal; not excavated; Structure 7?
476	circular	13.0	-	-	-	burial removal; not excavated; Structure 7
477	circular	12.0	-	-	-	burial removal; not excavated; Structure 7
478	circular	15.0	-	-	-	burial removal; not excavated; Structure 7
479	circular	12.0	-	-	-	burial removal; not excavated; Structure 7
480	circular	13.0	-	-	-	burial removal; not excavated; Structure 7
481	circular	15.0	-	-	-	burial removal; not excavated; Structure 7
482	circular	14.0	-	-	-	burial removal; not excavated; Structure 7
483	circular	13.0	-	-	-	burial removal; not excavated; Structure 7
484	circular	16.0	-	-	-	burial removal; not excavated; Structure 7
485	circular	18.0	-	-	-	burial removal; not excavated; palisade?
486	circular	30.0	-	-	-	burial removal; not excavated; palisade
487	circular	27.0	-	-	-	burial removal; not excavated; palisade
488	circular	11.0	-	-	-	burial removal; not excavated; palisade?
489	circular	15.0	-	-	-	burial removal; not excavated; palisade
490	circular	17.0	-	-	-	burial removal; not excavated; palisade
491	circular	13.0	-	-	-	burial removal; not excavated; palisade
492	circular	16.0	-	-	-	burial removal; not excavated; palisade
493	circular	17.0	-	-	-	burial removal; not excavated; palisade
494	circular	14.0	-	-	-	burial removal; not excavated; palisade
495	circular	13.0	-	-	-	burial removal; not excavated; palisade
496	circular	15.0	-	-	-	burial removal; not excavated; palisade
497	circular	10.0	-	-	-	burial removal; not excavated
498	circular	20.0	-	-	-	burial removal; not excavated
499	circular	16.0	-	-	-	burial removal; not excavated
501	circular	23.0	-	-	-	burial removal; not excavated; Structure 7?
502	circular	18.0	-	-	-	burial removal; not excavated
504	circular	12.0	-	-	-	burial removal; not excavated
505	circular	18.0	-	-	-	burial removal; not excavated
507	circular	14.0	-	-	-	burial removal; not excavated
508	circular	14.0	-	-	-	burial removal; not excavated
509	circular	12.0	-	-	-	burial removal; not excavated
510	circular	10.0	-	-	-	burial removal; not excavated
511	circular	12.0	-	-	-	burial removal; not excavated
512	circular	12.0	-	-	-	burial removal; not excavated
513	circular	13.0	-	-	-	burial removal; not excavated; palisade
514	circular	12.0	-	-	-	burial removal; not excavated; palisade
515	circular	14.0	-	-	-	burial removal; not excavated; palisade
516	circular	14.0	-	-	-	burial removal; not excavated; palisade

Table 28. A Summary List of Postmolds for the 1993–1995 Investigations (continued).*

Feature	Plan-view	Diameter	Length	Width	Depth	Comments
517	circular	14.0	-	-	-	burial removal; not excavated; palisade
518	circular	13.0	-	-	-	burial removal; not excavated; palisade
519	circular	14.0	-	-	-	burial removal; not excavated; palisade
520	circular	35.0	-	-	-	burial removal; not excavated; palisade
521	circular	12.0	-	-	-	burial removal; not excavated; palisade
522	circular	12.0	-	-	-	burial removal; not excavated; bastion
523	circular	15.0	-	-	-	burial removal; not excavated; bastion
524	circular	14.0	-	-	-	burial removal; not excavated; bastion
525	circular	14.0	-	-	-	burial removal; not excavated; bastion
526	circular	13.0	-	-	-	burial removal; not excavated; bastion
527	circular	14.0	-	-	-	burial removal; not excavated; bastion
528	circular	27.0	-	-	-	burial removal; not excavated; bastion
529	circular	16.0	-	-	-	burial removal; not excavated; bastion
530	circular	12.0	-	-	-	burial removal; not excavated; bastion
531	circular	12.0	-	-	-	burial removal; not excavated; bastion
532	circular	14.0	-	-	-	burial removal; not excavated
533	circular	17.0	-	-	-	burial removal; not excavated
534	circular	12.0	-	-	-	burial removal; not excavated
535	circular	13.0	-	-	-	burial removal; not excavated
536	circular	15.0	-	-	-	burial removal; not excavated; palisade?
537	circular	14.0	-	-	-	burial removal; not excavated; Structure 7
538	circular	15.0	-	-	-	burial removal; not excavated; Structure 7
539	circular	17.0	-	-	-	burial removal; not excavated; Structure 7
540	circular	14.0	-	-	-	burial removal; not excavated; Structure 7
541	circular	14.0	-	-	-	burial removal; not excavated; Structure 7
542	circular	14.0	-	-	-	burial removal; not excavated; Structure 7
543	circular	12.0	-	-	-	burial removal; not excavated; Structure 7
544	circular	14.0	-	-	-	burial removal; not excavated; Structure 7
545	circular	12.0	-	-	-	burial removal; not excavated; Structure 7
546	circular	20.0	-	-	-	burial removal; not excavated
547	circular	42.0	-	-	-	burial removal; not excavated
548	circular	20.0	-	-	-	burial removal; not excavated
551	circular	14.0	-	-	-	burial removal; not excavated; Structure 10?
552	circular	18.0	-	-	-	burial removal; not excavated; Structure 10?
553	circular	14.0	-	-	-	burial removal; not excavated
554	circular	12.0	-	-	-	burial removal; not excavated
555	circular	14.0	-	-	-	burial removal; not excavated
556	circular	17.0	-	-	-	burial removal; not excavated
557	circular	23.0	-	-	-	burial removal; not excavated; Structure 10?
560	circular	17.0	-	-	-	burial removal; not excavated
561	circular	12.0	-	-	-	burial removal; not excavated
562	circular	20.0	-	-	-	burial removal; not excavated
563	circular	20.0	-	-	-	burial removal; not excavated
564	circular	25.0	-	-	-	burial removal; not excavated
565	circular	16.0	-	-	-	burial removal; not excavated
566	circular	17.0	-	-	-	burial removal; not excavated
567	circular	22.0	-	-	-	burial removal; not excavated
568	circular	20.0	-	-	-	burial removal; not excavated
569	circular	15.0	-	-	-	burial removal; not excavated
570	circular	12.0	-	-	-	burial removal; not excavated
571	circular	20.0	-	-	-	burial removal; not excavated
572	circular	15.0	-	-	-	burial removal; not excavated; Structure 8?
573	circular	23.0	-	-	-	burial removal; not excavated; Structure 8
574	circular	20.0	-	-	-	burial removal; not excavated; Structure 8
575	circular	18.0	-	-	-	burial removal; not excavated; Structure 8
576	circular	22.0	-	-	-	burial removal; not excavated; Structure 8

Table28. A Summary List of Postmolds for the 1993–1995 Investigations (continued).*

Feature	Plan-view	Diameter	Length	Width	Depth	Comments
577	circular	22.0	-	-	-	burial removal; not excavated; Structure 8
578	circular	20.0	-	-	-	bur remov; no excav; rock-lined; Structure 8
579	circular	22.0	-	-	-	burial removal; not excavated; Structure 8
580	circular	20.0	-	-	-	burial removal; not excavated
581	circular	17.0	-	-	-	burial removal; not excavated
582	circular	20.0	-	-	-	burial removal; not excavated
583	circular	18.0	-	-	-	burial removal; not excavated
584	circular	20.0	-	-	-	burial removal; not excavated
585	circular	15.0	-	-	-	burial removal; not excavated
589	circular	18.0	-	-	-	burial removal; not excavated
590	circular	25.0	-	-	-	burial removal; not excavated
591	circular	40.0	-	-	-	burial removal; not excavated; palisade
592	circular	25.0	-	-	-	burial removal; not excavated; Structure 7
593	circular	20.0	-	-	-	burial removal; not excavated; palisade
594	circular	14.0	-	-	-	burial removal; not excavated; palisade
595	circular	20.0	-	-	-	burial removal; not excavated; palisade
596	circular	15.0	-	-	-	burial removal; not excavated; Structure 7
597	circular	20.0	-	-	-	burial removal; not excavated; Structure 7
598	circular	25.0	-	-	-	burial removal; not excavated; Structure 7
599	circular	16.0	-	-	-	burial removal; not excavated; Structure 7
600	circular	30.0	-	-	-	burial removal; not excavated; bastion
601	circular	12.0	-	-	-	burial removal; not excavated; bastion
602	circular	19.0	-	-	-	burial removal; not excavated; bastion
603	circular	17.0	-	-	-	burial removal; not excavated; bastion
604	circular	17.0	-	-	-	burial removal; not excavated; bastion
605	circular	12.0	-	-	-	burial removal; not excavated; bastion
606	circular	13.0	-	-	-	burial removal; not excavated; palisade
607	circular	14.0	-	-	-	burial removal; not excavated; palisade
608	circular	22.0	-	-	-	burial removal; not excavated; palisade
609	circular	17.0	-	-	-	burial removal; not excavated; palisade
610	circular	20.0	-	-	-	burial removal; not excavated; palisade
611	circular	19.0	-	-	-	burial removal; not excavated; palisade
612	circular	18.0	-	-	-	burial removal; not excavated; palisade
613	circular	19.0	-	-	-	burial removal; not excavated; palisade
614	circular	16.0	-	-	-	burial removal; not excavated; palisade
615	circular	13.0	-	-	-	burial removal; not excavated; palisade
616	circular	10.0	-	-	-	burial removal; not excavated; palisade
617	circular	17.0	-	-	-	burial removal; not excavated; palisade
618	circular	30.0	-	-	-	burial removal; not excavated; palisade
619	circular	13.0	-	-	-	burial removal; not excavated; palisade
620	circular	20.0	-	-	-	burial removal; not excavated; palisade
621	circular	20.0	-	-	-	burial removal; not excavated; palisade
622	circular	20.0	-	-	-	burial removal; not excavated; palisade
623	circular	19.0	-	-	-	burial removal; not excavated; palisade
624	circular	16.0	-	-	-	burial removal; not excavated; palisade
625	circular	21.0	-	-	-	burial removal; not excavated; palisade
626	circular	20.0	-	-	-	burial removal; not excavated; palisade
627	circular	19.0	-	-	-	burial removal; not excavated; palisade
628	circular	18.0	-	-	-	burial removal; not excavated; palisade
629	circular	20.0	-	-	-	burial removal; not excavated; palisade
630	circular	17.0	-	-	-	burial removal; not excavated; palisade
631	circular	16.0	-	-	-	burial removal; not excavated; palisade
632	circular	12.0	-	-	-	burial removal; not excavated; palisade
633	circular	18.0	-	-	-	burial removal; not excavated; palisade
634	circular	33.0	-	-	-	burial removal; not excavated
635	circular	19.0	-	-	-	burial removal; not excavated

Table 28. A Summary List of Postmolds for the 1993–1995 Investigations (continued).*

Feature	Plan-view	Diameter	Length	Width	Depth	Comments
636	circular	14.0	-	-	-	burial removal; not excavated
637	circular	18.0	-	-	-	burial removal; not excavated
638	circular	20.0	-	-	-	burial removal; not excavated
639	circular	16.0	-	-	-	burial removal; not excavated
640	circular	10.0	-	-	-	burial removal; not excavated
641	circular	14.0	-	-	-	burial removal; not excavated
642	circular	10.0	-	-	-	burial removal; not excavated
643	circular	15.0	-	-	-	burial removal; not excavated
644	circular	17.0	-	-	-	burial removal; not excavated
645	circular	34.0	-	-	-	burial removal; not excavated
646	circular	18.0	-	-	-	burial removal; not excavated
647	circular	30.0	-	-	-	burial removal; not excavated
648	circular	14.0	-	-	-	burial removal; not excavated
649	circular	19.0	-	-	-	burial removal; not excavated
650	circular	10.0	-	-	-	burial removal; not excavated
651	circular	22.0	-	-	-	burial removal; not excavated
652	circular	11.0	-	-	-	burial removal; not excavated
653	circular	13.0	-	-	-	burial removal; not excavated
654	circular	17.0	-	-	-	burial removal; not excavated
655	circular	12.0	-	-	-	burial removal; not excavated
656	circular	17.0	-	-	-	burial removal; not excavated
657	circular	10.0	-	-	-	burial removal; not excavated
658	circular	14.0	-	-	-	burial removal; not excavated
659	circular	20.0	-	-	-	burial removal; not excavated
661	circular	8.0	-	-	-	burial removal; not excavated; palisade
662	circular	16.0	-	-	-	burial removal; not excavated; palisade
663	circular	12.0	-	-	-	burial removal; not excavated; palisade
664	circular	11.0	-	-	-	burial removal; not excavated; palisade
665	circular	14.0	-	-	-	burial removal; not excavated; palisade
666	circular	18.0	-	-	-	burial removal; not excavated; palisade
668	circular	21.0	-	-	-	burial removal; not excavated; palisade
669	circular	26.0	-	-	-	burial removal; not excavated; palisade
670	circular	16.0	-	-	-	burial removal; not excavated; palisade
671	circular	11.0	-	-	-	burial removal; not excavated; palisade
672	circular	12.0	-	-	-	burial removal; not excavated; palisade
673	circular	18.0	-	-	-	burial removal; not excavated; palisade
675	circular	17.0	-	-	-	burial removal; not excavated; palisade
676	circular	20.0	-	-	-	burial removal; not excavated; palisade
677	circular	16.0	-	-	-	burial removal; not excavated; palisade
678	circular	16.0	-	-	-	burial removal; not excavated; palisade
679	circular	40.0	-	-	-	burial removal; not excavated; bastion
680	circular	6.0	-	-	-	burial removal; not excavated; bastion
681	circular	14.0	-	-	-	burial removal; not excavated; bastion
682	circular	12.0	-	-	-	burial removal; not excavated; bastion
683	circular	14.0	-	-	-	burial removal; not excavated; bastion
684	circular	13.0	-	-	-	burial removal; not excavated; bastion
685	circular	14.0	-	-	-	burial removal; not excavated; bastion
686	circular	11.0	-	-	-	burial removal; not excavated; bastion
687	circular	16.0	-	-	-	burial removal; not excavated; bastion
688	circular	14.0	-	-	-	burial removal; not excavated; bastion
689	circular	14.0	-	-	-	burial removal; not excavated; palisade
690	circular	11.0	-	-	-	burial removal; not excavated; palisade
691	circular	17.0	-	-	-	burial removal; not excavated; palisade
692	circular	16.0	-	-	-	burial removal; not excavated; palisade
703	circular	20.0	-	-	-	burial removal; not excavated; palisade?
704	circular	20.0	-	-	-	burial removal; not excavated; palisade

Table 28. A Summary List of Postmolds for the 1993–1995 Investigations (continued).*

Feature	Plan-view	Diameter	Length	Width	Depth	Comments
705	circular	20.0	-	-	-	burial removal; not excavated; palisade
706	circular	20.0	-	-	-	burial removal; not excavated; palisade
707	circular	20.0	-	-	-	burial removal; not excavated; palisade
708	circular	20.0	-	-	-	burial removal; not excavated; palisade
709	circular	20.0	-	-	-	burial removal; not excavated; palisade
712	circular	15.0	-	-	-	burial removal; not excavated; palisade?
719	circular	15.0	-	-	-	burial removal; not excavated
720	circular	15.0	-	-	-	burial removal; not excavated
721	circular	16.0	-	-	-	burial removal; not excavated; bastion
722	circular	16.0	-	-	-	burial removal; not excavated; bastion
723	circular	16.0	-	-	-	burial removal; not excavated; bastion
724	circular	16.0	-	-	-	burial removal; not excavated; bastion
725	circular	16.0	-	-	-	burial removal; not excavated; bastion
726	circular	16.0	-	-	-	burial removal; not excavated; palisade
727	circular	16.0	-	-	-	burial removal; not excavated; palisade
728	circular	16.0	-	-	-	burial removal; not excavated; bastion
729	circular	16.0	-	-	-	burial removal; not excavated; bastion
731	circular	15.0	-	-	-	burial removal; not excavated; bastion
732	circular	15.0	-	-	-	burial removal; not excavated; bastion
733	circular	15.0	-	-	-	burial removal; not excavated; bastion
734	circular	15.0	-	-	-	burial removal; not excavated; bastion
735	circular	15.0	-	-	-	burial removal; not excavated; bastion
736	circular	15.0	-	-	-	burial removal; not excavated; bastion
737	circular	15.0	-	-	-	burial removal; not excavated
743	circular	30.0	-	-	-	lot 73; not excavated; palisade
744	circular	20.0	-	-	-	lot 73; not excavated; palisade
745	circular	22.0	-	-	-	lot 73; not excavated; palisade
746	circular	21.0	-	-	-	lot 73; not excavated; palisade
747	circular	20.0	-	-	-	lot 73; not excavated; palisade
748	circular	19.0	-	-	-	lot 73; not excavated; palisade
749	circular	17.0	-	-	-	lot 73; not excavated; palisade
750	circular	25.0	-	-	-	lot 73; not excavated; palisade
751	circular	14.0	-	-	-	lot 73; not excavated; palisade
752	circular	18.0	-	-	-	lot 73; not excavated; palisade
753	circular	16.0	-	-	-	lot 73; not excavated; palisade
754	circular	13.0	-	-	-	lot 73; not excavated; palisade
755	circular	16.0	-	-	-	lot 73; not excavated; palisade
756	circular	23.0	-	-	-	lot 73; not excavated; palisade
757	circular	25.0	-	-	-	lot 73; not excavated; palisade
758	circular	15.0	-	-	-	lot 73; not excavated; palisade
759	circular	12.0	-	-	-	lot 73; not excavated; palisade
760	circular	12.0	-	-	-	lot 73; not excavated; palisade
761	circular	20.0	-	-	-	lot 73; not excavated; palisade
762	circular	19.0	-	-	-	lot 73; not excavated; palisade
763	circular	14.0	-	-	-	lot 73; not excavated; palisade
764	circular	20.0	-	-	-	lot 73; not excavated; palisade
765	circular	12.0	-	-	-	lot 73; not excavated; palisade
766	circular	20.0	-	-	-	lot 73; not excavated; palisade
767	circular	15.0	-	-	-	lot 73; not excavated; palisade
768	circular	18.0	-	-	-	lot 73; not excavated; palisade
769	circular	24.0	-	-	-	lot 73; not excavated; palisade
770	circular	19.0	-	-	-	lot 73; not excavated; palisade
772	circular	15.0	-	-	-	lot 73; not excavated; Structure 11
773	circular	13.0	-	-	-	lot 73; not excavated; Structure 11
774	circular	17.0	-	-	-	lot 73; not excavated; Structure 11
775	circular	13.0	-	-	-	lot 73; not excavated; Structure 11

Table 28. A Summary List of Postmolds for the 1993–1995 Investigations (continued).*

Feature	Plan-view	Diameter	Length	Width	Depth	Comments
776	circular	21.0	-	-	-	lot 73; not excavated; Structure 11
777	circular	11.0	-	-	-	lot 73; not excavated; Structure 11
778	circular	11.0	-	-	-	lot 73; not excavated; Structure 11
779	circular	20.0	-	-	-	lot 73; not excavated; Structure 11
780	circular	10.0	-	-	-	lot 73; not excavated; Structure 11
781	circular	10.0	-	-	-	lot 73; not excavated; Structure 11
782	circular	12.0	-	-	-	lot 73; not excavated; Structure 11
783	circular	14.0	-	-	-	lot 73; not excavated; Structure 11
784	circular	11.0	-	-	-	lot 73; not excavated; Structure 11
785	circular	15.0	-	-	-	lot 73; not excavated; Structure 11
786	circular	15.0	-	-	-	lot 73; not excavated; Structure 11
787	circular	14.0	-	-	-	lot 73; not excavated; Structure 11
788	circular	8.0	-	-	-	lot 73; not excavated; Structure 11
789	circular	13.0	-	-	-	lot 73; not excavated; Structure 11
790	circular	11.0	-	-	-	lot 73; not excavated; Structure 11
791	circular	14.0	-	-	-	lot 73; not excavated; Structure 11
792	circular	18.0	-	-	-	lot 73; not excavated; Structure 11
793	circular	15.0	-	-	-	lot 73; not excavated; Structure 11
794	circular	27.0	-	-	-	lot 73; no excavate; rock-lined; Structure 11
795	circular	12.0	-	-	-	lot 73; not excavated; Structure 11
796	circular	14.0	-	-	-	lot 73; not excavated; Structure 11
797	circular	13.0	-	-	-	lot 73; not excavated; Structure 11
800	circular	13.0	-	-	-	lot 73; not excavated; Structure 11
801	circular	16.0	-	-	-	lot 73; not excavated; Structure 11
802	circular	17.0	-	-	-	lot 73; not excavated; Structure 11
803	circular	8.0	-	-	-	lot 73; not excavated; Structure 11
804	circular	12.0	-	-	-	lot 73; not excavated; Structure 11
805	circular	12.0	-	-	-	lot 73; not excavated; Structure 11
806	circular	15.0	-	-	-	lot 73; not excavated; Structure 11
807	circular	16.0	-	-	-	lot 73; not excavated; Structure 11
808	circular	14.0	-	-	-	lot 73; not excavated; Structure 11
809	circular	16.0	-	-	-	lot 73; not excavated; Structure 11
810	circular	12.0	-	-	-	lot 73; not excavated; Structure 11
811	circular	12.0	-	-	-	lot 73; not excavated; Structure 11
812	circular	11.0	-	-	-	lot 73; not excavated; Structure 11
813	circular	12.0	-	-	-	lot 73; not excavated; Structure 11
814	circular	10.0	-	-	-	lot 73; not excavated; Structure 11
815	circular	16.0	-	-	-	lot 73; not excavated; Structure 11
816	circular	30.0	-	-	-	lot 73; not excavated; Structure 11
818	circular	20.0	-	-	-	burial removal; not excavated; Structure 9
819	circular		-	-	-	burial removal; not excavated; bastion
820	circular		-	-	-	burial removal; not excavated; bastion
821	circular		-	-	-	burial removal; not excavated; bastion
822	circular		-	-	-	burial removal; not excavated; palisade
823	circular		-	-	-	burial removal; not excavated; palisade
824	circular		-	-	-	burial removal; not excavated; palisade
825	circular		-	-	-	burial removal; not excavated; palisade
826	circular		-	-	-	burial removal; not excavated; palisade
827	circular		-	-	-	burial removal; not excavated; palisade
828	circular		-	-	-	burial removal; not excavated; palisade
829	circular		-	-	-	burial removal; not excavated; palisade
830	circular		-	-	-	burial removal; not excavated; palisade
831	circular		-	-	-	burial removal; not excavated; palisade
832	circular		-	-	-	burial removal; not excavated; palisade
833	circular		-	-	-	burial removal; not excavated; palisade
834	circular		-	-	-	burial removal; not excavated; palisade

Table 28. A Summary List of Postmolds for the 1993–1995 Investigations (continued).*

Feature	Plan-view	Diameter	Length	Width	Depth	Comments
835	circular		-	-	-	burial removal; not excavated; palisade
836	circular		-	-	-	burial removal; not excavated; palisade
837	circular		-	-	-	burial removal; not excavated; palisade
838	circular		-	-	-	burial removal; not excavated; palisade
839	circular		-	-	-	burial removal; not excavated; palisade
840	circular		-	-	-	burial removal; not excavated; palisade
841	circular		-	-	-	burial removal; not excavated; palisade
842	circular		-	-	-	burial removal; not excavated; palisade
843	circular		-	-	-	burial removal; not excavated; palisade
844	circular		-	-	-	burial removal; not excavated; palisade
845	circular		-	-	-	burial removal; not excavated; palisade
846	circular		-	-	-	burial removal; not excavated; palisade
847	circular		-	-	-	burial removal; not excavated; palisade
848	circular		-	-	-	burial removal; not excavated; palisade
849	circular		-	-	-	burial removal; not excavated; palisade
850	circular		-	-	-	burial removal; not excavated; palisade
851	circular		-	-	-	burial removal; not excavated; palisade
852	circular		-	-	-	burial removal; not excavated; palisade
853	circular		-	-	-	burial removal; not excavated; palisade
854	circular		-	-	-	burial removal; not excavated; palisade
855	circular		-	-	-	burial removal; not excavated; palisade
856	circular		-	-	-	burial removal; not excavated; palisade
857	circular		-	-	-	burial removal; not excavated; palisade
858	circular		-	-	-	burial removal; not excavated; palisade
859	circular		-	-	-	burial removal; not excavated; palisade
860	circular		-	-	-	burial removal; not excavated; palisade
861	circular		-	-	-	burial removal; not excavated; palisade
862	circular		-	-	-	burial removal; not excavated; palisade
864	circular		-	-	-	burial removal; not excavated; bastion
865	circular		-	-	-	burial removal; not excavated; bastion
866	circular		-	-	-	burial removal; not excavated; bastion
867	circular		-	-	-	burial removal; not excavated; bastion
868	circular		-	-	-	burial removal; not excavated; bastion
869	circular		-	-	-	burial removal; not excavated; bastion
870	circular		-	-	-	burial removal; not excavated; bastion
871	circular		-	-	-	burial removal; not excavated; bastion
872	circular		-	-	-	burial removal; not excavated; bastion
873	circular		-	-	-	burial removal; not excavated; bastion
874	circular		-	-	-	burial removal; not excavated; bastion
875	circular		-	-	-	burial removal; not excavated; bastion
876	circular		-	-	-	burial removal; not excavated; bastion
877	circular		-	-	-	burial removal; not excavated; bastion
878	circular		-	-	-	burial removal; not excavated; bastion
879	circular		-	-	-	burial removal; not excavated; bastion

* = measurements in cm

Feature 15

Type: Refuse-filled pit.

Plan view and Dimensions: Irregular to roughly circular; 1.0 meters diameter.

Profile: Somewhat basin-shaped

Depth: about 10 cm.

Associated Artifacts: Ceramics, lithics, faunal remains, floral remains.

Remarks: This feature was partially exposed along the south wall (southwest corner) of Strip Block B. A sample of charred wood yielded an uncorrected radiocarbon date of 970 +/- 50 BP, or AD 980 +/- 50 (Beta-70876). This feature obviously dates several hundred years prior to the primary occupation of 40SU15, and documents a late Woodland or emergent Mississippian presence within the site area.

Feature 18

Type: Ash-filled pit.

Plan view and Dimensions: Oval; 89.0 cm by 63.0 cm.

Profile: basin-shaped?

Depth: 6.0 cm.

Associated Artifacts: Ceramics, lithics, faunal remains.

Remarks: The very bottom of this pit was uncovered in Strip Block B. The contents of this feature originated from another place and were later swept or dumped into this pit. No evidence of burning was observed on the pit base or wall remnants.

Feature 20 (Figure 90)

Type: Refuse-filled pit.

Plan view and Dimensions: Somewhat circular; 2.33 meters east to west, and 2.46 meters north to south.

Profile: Basin-shaped.

Depth: 30.0 cm.

Associated Artifacts: Ceramics, lithics, faunal remains, floral remains, mica, hematite, daub, shell.

Remarks: Feature 20 comprised a very large pit that partially overlapped another large refuse-filled pit (Feature 36) on the northern edge. This pit (along with Feature 36) occupied the central portion of the large structure exposed in Strip Block B. Charred wood samples from the feature fill yielded uncorrected radiocarbon asays of AD 1320 +/- 60 (Beta-70874) and AD 1370 +/- 50 (Beta-70875). Numerous artifacts were also recovered from the fill, including exotic minerals and partial ceramic vessels.

Feature 36 (Figure 90)

Type: Refuse-filled pit.

Plan view and Dimensions: Oval to circular; 3.13 meters east to west, and 2.03 meters north to south.

Profile: Basin-shaped with a somewhat irregular bottom.

Depth: 33.0 cm.

Associated Artifacts: Ceramics, lithics, faunal remains, floral remains, mica, daub, shell.

Remarks: This feature represented a very large pit with numerous artifacts that partially overlapped Feature 20 along its southern edge. Feature 36 (along with Feature 20) was identified inside the large structure exposed in Strip Block B. One charred wood sample from the feature fill yielded an uncorrected date of AD 1320 +/- 50 (Beta-70877).

Feature 62

Type: Refuse-filled pit.
Plan view and Dimensions: Oval; 52.0 cm by 35.0 cm.
Profile: Basin-shaped.
Depth: 16.0 cm.
Associated Artifacts: Ceramics, lithics, faunal remains, shell.
Remarks: The western edge of this small pit ran into the wall of Strip Block B.

Figure 90. Features 20 (right) and 36 (partially exposed at left), strip block B.

Feature 89

Type: Refuse-filled pit.
Plan view and Dimensions: Circular to oval; 1.96 meters east to west, and 1.65 meters north to south.
Profile: Basin-shaped.
Depth: 15.0 cm.
Associated Artifacts: Ceramics, lithics, faunal remains, floral remains.

Remarks: A moderate sample of artifacts was retrieved from this large pit in Strip Block C. Only the western half of this feature was excavated.

Feature 101 (Figure 91)

Type: Refuse-filled pit.

Plan view and Dimensions: Irregular to somewhat oval, although south and west ends of feature not exposed; 4.20 meters from east pit edge to Strip Block B west wall, and 2.90 meters from north pit edge to Strip Block B wall.

Profile: Somewhat basin-shaped with undulating floor.

Depth: Feature not completely excavated, depth at least 20 cm.

Associated Artifacts: Ceramics, lithics, faunal remains, floral remains, mica, graphite, daub, shell.

Remarks: Feature 101 consisted of a huge refuse-filled pit in the northwest corner of Strip Block B. Numerous artifacts were recovered from this feature, including exotic minerals and partial ceramic vessels. A cluster of daub and burned cane was also recorded near the east pit edge. At least four posts (Features 131, 138, 139, and 158) were observed in the pit base (see Table 28). Charred wood samples from this feature yielded two uncorrected radiocarbon dates of AD 1370 +/- 50 (Beta-70873) and AD 1450 +/- 50 (Beta-70872).

Figure 91. Feature 101, strip block B.

Feature 193

Type: Refuse-filled pit?
Plan view and Dimensions: Circular; 40.0 cm diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 194

Type: Refuse-filled pit.
Plan view and Dimensions: Oval; 3.0 meters by 1.80 meters.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics, lithics, faunal remains.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 195

Type: Refuse-filled pit?
Plan view and Dimensions: Circular; 45.0 cm diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 209

Type: Refuse-filled pit?
Plan view and Dimensions: Oval; 1.0 meter (north to south) by 50.0 cm (east to west).
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 244

Type: Refuse-filled pit?
Plan view and Dimensions: Circular; 45.0 cm diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 301

Type: Hearth.
Plan view and Dimensions: Somewhat circular; 40.0 cm in diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Disturbed by private consultant search for human remains in lot 74. This feature comprised the central hearth for Structure 5.

Feature 359

Type: Refuse-filled pit.
Plan view and Dimensions: Circular to oval; 1.10 meters (east to west) by 92.0 cm (north to south).
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics, lithics, faunal remains.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 360

Type: Refuse-filled pit.
Plan view and Dimensions: Somewhat oval; at least 1.0 meter diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics, faunal remains, shell.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 361

Type: Refuse-filled pit.
Plan view and Dimensions: Irregular; 1.65 meters (north to south) by 75.0 cm (east to west).
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics, faunal remains, shell.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 362

Type: Overlapping refuse-filled pits?
Plan view and Dimensions: Circular?; 1.80 meters (east to west) by 1.65 meters (north to south).
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.

Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 365

Type: Refuse-filled pit.
Plan view and Dimensions: Circular; 45.0 cm diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics, faunal remains.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 367

Type: Limestone rock concentration.
Plan view and Dimensions: Somewhat circular; 25.0 cm diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 371

Type: Overlapping refuse-filled pits.
Plan view and Dimensions: Circular?; 3.20 meters (east to west) by 2.50 meters (north to south).
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics, lithics, faunal remains, daub.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 372

Type: Refuse-filled pit?
Plan view and Dimensions: Oval; 65.0 cm (east to west) by 60.0 cm (north to south).
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 373

Type: Refuse-filled pit?
Plan view and Dimensions: Oval; 1.20 meters (east to west) by 80 cm (north to south).
Profile: Unknown.
Depth: Unknown.

Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 374
Type: Refuse-filled pit?
Plan view and Dimensions: Circular; 60.0 cm diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 392
Type: Refuse-filled pit.
Plan view and Dimensions: Oval; 2.0 meters by 1.60 meters.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics, lithics, faunal remains, shell.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 425
Type: Refuse-filled pit.
Plan view and Dimensions: Circular; 2.0 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 500
Type: Refuse-filled pit?
Plan view and Dimensions: Circular; 1.0 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics.
Remarks: Examined by private consultant to assess presence of human remains. This feature may not be prehistoric, but rather the remnant of a tree. Time limitations prevented further assessment.

Feature 503
Type: Refuse-filled pit?
Plan view and Dimensions: Oval; 1.0 meters (east to west) by 80.0 cm (north to south).
Profile: Unknown.

Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 506
Type: Refuse-filled pit?
Plan view and Dimensions: Oval; 1.0 meters (north to south) by 85.0 cm (east to west).
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 549
Type: Refuse-filled pit?
Plan view and Dimensions: Circular; 45.0 cm diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 550
Type: Refuse-filled pit?
Plan view and Dimensions: Circular; 45.0 cm diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 558
Type: Refuse-filled pit?
Plan view and Dimensions: Circular; 1.0 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 559
Type: Refuse-filled pit?
Plan view and Dimensions: Circular; 50.0 cm diameter.
Profile: Unknown.

Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 586
Type: Probable hearth.
Plan view and Dimensions: Somewhat circular; 50.0 cm diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Exposed by private consultant during removal of human remains, but no notes available.

Feature 587
Type: Refuse-filled pit.
Plan view and Dimensions: Circular; 1.20 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics, lithics, faunal remains, daub.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 588
Type: Refuse-filled pit.
Plan view and Dimensions: Circular; 1.0 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics, lithics, faunal remains.
Remarks: Examined by private consultant to assess presence of human remains. No notes available.

Feature 660
Type: Borrow pit.
Plan view and Dimensions: Oval; 2.0 meters (east to west) by 1.50 meters (north to south).
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a borrow pit for the primary palisade based upon the lack of artifactual material and close proximity to the palisade trench.

Feature 667
Type: Borrow pit.
Plan view and Dimensions: Oval; 2.0 meters (east to west) by 1.0 meters (north to south).

Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a borrow pit for the primary palisade based upon the lack of artifactual material and close proximity to the palisade trench.

Feature 693

Type: Borrow pit.
Plan view and Dimensions: Circular; 1.0 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a borrow pit for the primary palisade based upon the lack of artifactual material and close proximity to the palisade trench.

Feature 694

Type: Borrow pit.
Plan view and Dimensions: Circular; 1.5 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics, daub.
Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a probable borrow pit for the primary palisade based upon the general lack of artifactual material and close proximity to the palisade trench.

Feature 695

Type: Borrow pit.
Plan view and Dimensions: Circular; 1.0 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics, lithics.
Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a probable borrow pit for the primary palisade based upon the general lack of artifactual material and close proximity to the palisade trench.

Feature 696

Type: Borrow pit.
Plan view and Dimensions: Circular; 1.5 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics, lithics.

Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a probable borrow pit for the primary palisade based upon the general lack of artifactual material and close proximity to the palisade trench.

Feature 697

Type: Borrow pit.
Plan view and Dimensions: Circular; 50.0 cm diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a borrow pit for the primary palisade based upon the lack of artifactual material and close proximity to the palisade trench.

Feature 698

Type: Borrow pit.
Plan view and Dimensions: Circular; 1.5 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a borrow pit for the primary palisade based upon the lack of artifactual material and close proximity to the palisade trench.

Feature 699

Type: Borrow pit.
Plan view and Dimensions: Circular; 1.0 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a borrow pit for the primary palisade based upon the lack of artifactual material and close proximity to the palisade trench.

Feature 700

Type: Borrow pit.
Plan view and Dimensions: Circular; 2.5 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a borrow pit for the primary palisade based upon the lack of artifactual material and close proximity to the palisade trench.

Feature 701

Type: Borrow pit.

Plan view and Dimensions: Circular; 1.0 meters diameter.

Profile: Unknown.

Depth: Unknown.

Associated Artifacts: None.

Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a borrow pit for the primary palisade based upon the lack of artifactual material and close proximity to the palisade trench.

Feature 702

Type: Borrow pit.

Plan view and Dimensions: Circular; 1.5 meters diameter.

Profile: Unknown.

Depth: Unknown.

Associated Artifacts: Ceramics, lithics.

Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a probable borrow pit for the primary palisade based upon the general lack of artifactual material and close proximity to the palisade trench.

Feature 710

Type: Borrow pit.

Plan view and Dimensions: Circular; 1.3 meters diameter.

Profile: Unknown.

Depth: Unknown.

Associated Artifacts: Ceramics.

Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a probable borrow pit for the primary palisade based upon the general lack of artifactual material and close proximity to the palisade trench.

Feature 711

Type: Borrow pit.

Plan view and Dimensions: Circular; 1.3 meters diameter.

Profile: Unknown.

Depth: Unknown.

Associated Artifacts: None.

Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a borrow pit for the primary palisade based upon the lack of artifactual material and close proximity to the palisade trench.

Feature 713

Type: Borrow pit.

Plan view and Dimensions: Circular; 2.5 meters diameter.

Profile: Unknown.

Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a borrow pit for the primary palisade based upon the lack of artifactual material and close proximity to the palisade trench.

Feature 714
Type: Borrow pit.
Plan view and Dimensions: Circular; 2.0 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a borrow pit for the primary palisade based upon the lack of artifactual material and close proximity to the palisade trench.

Feature 715
Type: Borrow pit.
Plan view and Dimensions: Circular; 1.0 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics, lithics.
Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a probable borrow pit for the primary palisade based upon the general lack of artifactual material and close proximity to the palisade trench.

Feature 716
Type: Borrow pit.
Plan view and Dimensions: Circular; 1.0 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a borrow pit for the primary palisade based upon the lack of artifactual material and close proximity to the palisade trench.

Feature 717
Type: Borrow pit.
Plan view and Dimensions: Circular; 1.5 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics.

Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a probable borrow pit for the primary palisade based upon the general lack of artifactual material and close proximity to the palisade trench.

Feature 718

Type: Borrow pit.
Plan view and Dimensions: Circular; 1.5 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a borrow pit for the primary palisade based upon the lack of artifactual material and close proximity to the palisade trench.

Figure 92. Feature 738, lot 85

Feature 738 (Figure 92)

Type: Several possibilities, including hearth, roasting pit, or crematory basin.
Plan view and Dimensions: Somewhat circular; 2.60 meters diameter.
Profile: Generally basin-shaped, although base center somewhat convex.
Depth: 30.0 cm.
Associated Artifacts: Ceramics, lithics, shell.

Remarks: Feature 738 was recorded along the southeastern edge of the Rutherford-Kizer site (lot 85). The northwest edge of this feature was disturbed by a stone-box grave (Burial 72). Evidence of intensive burning was readily apparent throughout this very large pit. The walls and base were partially lined with (burned) limestone pieces, and the dirt walls and base under the stones had been heated to a bright orange-red. Pit fill was heavily laden with charcoal, burned earth, and ash. Few artifacts were recovered from this feature given its large size. A charred wood sample submitted for radiocarbon assay yielded an uncorrected Middle Woodland date of AD 630 +/- 60 (Beta-90627).

Feature 739

Type: Refuse-filled pit.
Plan view and Dimensions: Oval; 80.0 cm (east to west) by 63.0 cm (north to south).
Profile: Basin-shaped?
Depth: 14.0 cm.
Associated Artifacts: Ceramics, lithics, faunal remains.
Remarks: This pit was exposed along the southeastern site boundary in lot 85. Cordmarked ceramic sherds from this feature remnant strongly support a Woodland designation. Prior plowing and bulldozer activity destroyed an unknown portion of this pit.

Feature 740

Type: Refuse-filled pit.
Plan view and Dimensions: Circular to oval; 61.0 cm by 58.0 cm.
Profile: Conical.
Depth: 42.0 cm.
Associated Artifacts: Ceramics, lithics, faunal remains.
Remarks: Exposed in lot 85, this feature yielded additional evidence for a Woodland occupation at 40SU15 in the form of cordmarked and check stamped sherds. This pit was partially disturbed by Burial 76.

Feature 741

Type: Refuse-filled pit.
Plan view and Dimensions: Circular; 53.0 cm diameter.
Profile: Somewhat conical.
Depth: 20.0 cm.
Associated Artifacts: Ceramics, lithics, faunal remains.
Remarks: Feature 741 was also uncovered in lot 85, and along with Features 738-740.

Feature 742 (Figure 93)

Type: Biface cache.
Plan view and Dimensions: See remarks.
Profile: See remarks.
Depth: Unknown.
Associated Artifacts: Two large bifaces.

Remarks: Two large, ovate bifaces of Ft. Payne chert were found stacked (one on top of the other) immediately west of Burial 82 in lot 85. These artifacts likely comprise the remnant of a more substantial biface cache disturbed by previous earthmoving action (either prehistoric or modern). In fact, similar bifaces reported to come from the 40SU15 site area are on display in the Sumner County Museum. Although in close proximity to a Mississippian stone-box grave (Burial 82), the bifaces undoubtedly originated from a prior Archaic or Woodland occupation established on top of the southeast knoll.

Figure 93. Feature 742 (biface cache), lot 85.

Feature 771

Type: Refuse-filled pit.
Plan view and Dimensions: Oval; 40.0 cm by 30.0 cm.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.

Remarks: Feature 771 was recorded within lot 73 during active construction. This pit was minimally examined.

Feature 798

Type: Refuse-filled pit.
Plan view and Dimensions: Oval; 2.50 meters by 2.0 meters.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: None.
Remarks: This pit feature was exposed by construction activity within lot 73. Investigation of this feature was minimal.

Feature 799

Type: Ceramic vessel.
Plan view and Dimensions: n/a
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramic vessel.
Remarks: This shell-tempered vessel was truncated by earthmoving activity associated with house construction on lot 73. The remaining vessel section had been severely damaged by heavy machinery and could not be removed in a restorable manner.

Feature 817

Type: Refuse-filled pit
Plan view and Dimensions: Circular; 1.10 meters diameter.
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Unknown.
Remarks: Bulldozer activity in conjunction with house construction on lot 73 uncovered this pit. This feature was not excavated.

Feature 863

Type: Overlapping borrow pits.
Plan view and Dimensions: Oval to circular; 3.20 meters (east to west) by 2.50 meters (north to south).
Profile: Unknown.
Depth: Unknown.
Associated Artifacts: Ceramics, lithics, daub.
Remarks: Examined by private consultant to assess presence of human remains. This feature has been interpreted as a probable borrow pit for the primary palisade based upon the general lack of artifactual material and close proximity to the palisade trench.

Feature 880

Type: Refuse-filled pit.
Plan view and Dimensions: Circular.

Profile: Basin-shaped.
Depth: Unknown.
Associated Artifacts: Ceramics, lithics, faunal remains, shell.
Remarks: This feature was exposed somewhere in the lot 75 area by an early road cut associated with the initial subdivision plan. The private consultant conducted a preliminary excavation of the pit in search of human remains. No notes or artifacts are available from that investigation. Based upon the observed artifactual material exposed in the fill, Division personnel initiated work to remove the remainder of the feature. As was often the case at this site, however, grading activity for the subdivision destroyed this feature before the Division excavation was completed. The earthmoving activity also destroyed the feature before it was mapped.

Feature 881

Type: Maize-filled depression/pit?
Plan view and Dimensions: Roughly circular.
Profile: Unknown.
Depth: Estimated 20 cm.
Associated Artifacts: Charred maize cob fragments.
Remarks: This depression/pit feature was uncovered by a road cut associated with the first subdivision plan. Division personnel observed this feature in the summer of 1994 during a site inspection and immediately initiated a salvage operation to remove the corn. The fill had to be removed in an expeditious manner due to active construction activity within the area. Construction activity destroyed this feature before it could be located on a map. An estimated position would be the southern end of lot 74.

Feature 882

Type: Ceramic vessel.
Plan view and Dimensions: n/a.
Profile: n/a.
Depth: n/a.
Associated Artifacts: Shell-tempered ceramic vessel.
Remarks: This ceramic vessel was observed within a road cut associated with the initial subdivision plan. Division personnel observed and immediately removed this vessel in the summer of 1994. Construction activity destroyed this feature before it could be accurately mapped. An estimated position would be the southern end of lot 74, or possibly lot 75.

APPENDIX D

BURIAL DESCRIPTIONS

Michael C. Moore, Emanuel Breitburg, and Kevin E. Smith

Appendix D presents the descriptions of 91 human graves exposed during the 1993–1995 Rutherford-Kizer investigations (see Section VI and Appendix B). Eighty-one graves (containing 86 individuals) were removed by order of the court between late fall 1994 and summer 1995. A brief analysis of these remains was conducted prior to reburial and is included in this appendix. A general description of each burial is presented first, followed by information on such variables as age, sex, pathology, and anomaly.

The first ten burials comprise graves uncovered in Strip Blocks A and B during exploratory excavations by the Division of Archaeology in October of 1993. Each of the grave locations were mapped and their dimensions recorded. However, no skeletal remains were removed or analyzed at that time. Once a human burial was positively identified, the grave area was covered with soil and left alone. Burials 1-10 remain within the large greenspace zone set aside by the developer.

A private archaeological consulting firm was hired to locate and remove all burials within the limits of house lots 74-80. The consultant removed a total of 54 graves (Burials 11-64) during November and December of 1994, but did not maintain a formal map or photo log of the burial locations. The Division of Archaeology recorded many of these grave spots during their mapping of exposed non-mortuary features. Unfortunately, eight graves (Burials 14, 15, 24, 34, 35, 36, 39, and 40) exposed within an early subdivision road cut were destroyed by construction related activities before they could be mapped.

Two graves (Burials 65-66) were observed and removed from lot 76 by Division of Archaeology personnel in late December of 1994. From late June through July of 1995, the Division removed an additional 25 graves (Burials 67-91) from lot 85.

Burial 1

Description: Burial 1 represents one of five stone-box graves (Burials 1-5) uncovered in Strip Block A during the initial investigations of 40SU15 in 1993. A somewhat rectangular dark stain measuring 220 cm long and about 63 cm wide defined this grave. None of the capstones were present, and most of the side and end stones were not visible. Small sections of upright limestone slabs were noted on the northeast corner of the stain. This burial appears to have been vandalized based upon the irregular outline and missing slabs. Several long bone fragments were observed in the fill, but no grave goods were visible.

Age: adult

Sex: unknown
Pathology: unknown
Anomaly: unknown
Metrics: none taken

Burial 2

Description: Of all the graves uncovered in Strip Block A, Burial 2 appeared to be in the best condition. This stone-box still displayed capstone remnants along the northern end and southeastern corner. Side and end stones were present except for the western side that was defined by a dark linear stain. Cranial fragments were visible in the southwest corner of the box. Looters may have damaged the center of this grave, which measured 98 cm in length and 40 cm in width. No associated artifacts were observed.
Age: child
Sex: unknown
Pathology: unknown
Anomaly: unknown
Metrics: none taken

Burial 3

Description: A somewhat oval to rectangular pit outline in Strip Block A defined this burial. Several small fragments of tabular limestone were visible in the pit fill. This probable stone-box grave has obviously been looted. No grave goods were found with this burial. The pit outline measured about 90 cm long and 55 cm wide.
Age: child
Sex: unknown
Pathology: unknown
Anomaly: unknown
Metrics: none taken

Burial 4

Description: Burials 4 and 5 were defined by two somewhat rectangular pit outlines that appear to connect at an odd angle. Relic hunters have distorted the area surrounding the apparent junction of these two graves. Long bone fragments were present within this disturbed portion. Several vertical stone slabs were visible along the western end of the Burial 4 pit outline. Vandal digging has made any estimates of age based upon box size to be rather difficult.
Age: unknown
Sex: unknown
Pathology: unknown
Anomaly: unknown
Metrics: none taken

Burial 5

Description: As mentioned previously, Burial 5 was observed as a somewhat rectangular pit outline that appears to unite with the Burial 4 pit outline. Digging by relic hunters has damaged an area where Burials 4 and 5 appear to join together. One vertical slab was observed at the southeast end of Burial 5.

Age: unknown

Sex: unknown

Pathology: unknown

Anomaly: unknown

Metrics: none taken

Figure 94. Burial 6 (Feature 16) in strip block B.

Burial 6 (Figure 94)

Description: Division of Archaeology excavations exposed this bundle burial in Strip Block B (designated Feature 16). Stacked long bones and other skeletal elements were observed within a somewhat oval to circular pit measuring 63.0 cm (east to west) by 57.0 cm (north to south). This burial pit intruded into a large circular post (Feature 13). No grave artifacts were visible.

Age: probable adult

Sex: unknown

Pathology: unknown

Anomaly: unknown
Metrics: none taken

Burial 7

Description: A cluster of four human burials (Burials 7-10) was recorded within the northeast corner of Strip Block B (designated Feature 133). Burial 7 comprised an oval to rectangular pit feature measuring 95.0 cm long and 50.0 cm wide. Cranial fragments and teeth were observed in the pit fill. No associated artifacts were recovered.
Age: child
Sex: unknown
Pathology: unknown
Anomaly: unknown
Metrics: none taken

Burial 8

Description: A second oval to rectangular pit feature very similar to Burial 7 was uncovered in the Strip Block B burial cluster (designated Feature 134). This feature, measuring 90.0 cm long and 44.0 cm wide, also yielded cranial fragments and teeth in the pit fill. Again, no grave goods were observed.
Age: child
Sex: unknown
Pathology: unknown
Anomaly: unknown
Metrics: none taken

Burial 9

Description: One corner of this rectangular stone coffin was defined in the northeast corner walls of Strip Block B (designated Feature 135). Unlike many of the stone-box graves identified at 40SU15, the capstones were still in place.
Age: probable adult
Sex: unknown
Pathology: unknown
Anomaly: unknown
Metrics: none taken

Burial 10

Description: This large, rectangular pit extends into the northeast corner wall of Strip Block B (designated Feature 155). No limestone slabs or human skeletal remains were observed with the feature, which measured 96.0 cm in width. However, this pit's proximity to other burials in the strip block, as well as its' similarities with other disturbed burials at the site, strongly support the designation as a human burial.
Age: probable adult
Sex: unknown
Pathology: unknown

Anomaly: unknown
Metrics: none taken

Burial 11A

Description: The partial remains of two individuals were retrieved from this rectangular stone-box. Only one person was identified during the grave removal. The rather poorly preserved skeletal remains of Burial 11A were recorded in an extended position on an earth floor. No grave artifacts were recovered.
Age: about 10 years
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics:
Right femur:
maximum length 270.0 mm

Burial 11B

Description: This individual was not identified by the field removal. Burial 11B consists of fetal/newborn long bone fragments recovered during the laboratory analysis.
Age: fetal/newborn
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics:
Right femur:
maximum length 60.0 mm

Burial 12A

Description: This small, rectangular stone-box contained the (extended?) remains of two young children placed one on top of the other. The removal notes do not provide any information on either individual's position or orientation within the coffin. This well-made coffin had an earth floor. Burial 12A consists of the fairly complete remains of a young child about two years old. No grave artifacts were recorded.
Age: 2 years +/- 6 months
Sex: unknown
Pathology: Granular appearance on interior surface of cranium.
Anomaly: none noted
Metrics:
Right humerus
maximum length 111.5 mm

Burial 12B

Description: Burial 12B consists of primarily cranial and ramus fragments from a young child that was probably a bit older that Burial 12A.

Age: 3 years +/- 6 months
Sex: unknown
Pathology: Granular appearance on interior surface of parietal bones.
Anomaly: none noted
Metrics: none taken

Burial 13

Description: This possible flexed burial consists of disarticulated long bones, vertebrae, and crania within an oval pit measuring 45 cm long and 30 cm wide. The top of this grave had been disturbed by the backhoe. No artifacts associated with this pit were observed.
Age: 30 years +/- 5 years
Sex: female
Pathology: none noted
Anomaly: none noted
Metrics:

Left femur:	
maximum head diameter	42.0 mm
circumference of midshaft	80.0 mm
Right femur:	
circumference of midshaft	82.0 mm

Burial 14

Description: Most of the skeletal remains within this very small, rectangular stone-box had been substantially disturbed by heavy machinery. Burial 14 contained a stone floor. No grave goods recorded.
Age: fetal/newborn
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics:

Left femur:	
maximum length	74.0 mm

Burial 15

Description: Burial 15 represents a capped, rectangular stone-box that contained the fragmented remains of a young child. This individual was apparently buried in a flexed position, lying on his/her right side. The removal notes do not indicate what type of floor was associated with this burial. No grave goods were found with this person.
Age: 4 years +/- 9 months
Sex: unknown
Pathology: Hypoplasia on central incisors.
Anomaly: none noted
Metrics: none taken

Burial 16

Description: Few skeletal remains were present within this previously looted stone-box. No artifacts were observed.

Age: adult

Sex: unknown

Pathology: none noted

Anomaly: none noted

Metrics: none taken

Burial 17

Description: This small, rectangular stone-box yielded very few skeletal remains. No artifacts were recovered. The removal notes do not indicate what type of floor was associated with this burial. No artifacts were exposed in this grave.

Age: 1 year +/- 6 months

Sex: unknown

Pathology: Periostitis visible on left tibia.

Anomaly: none noted

Metrics:

Right ilium:	
maximum breadth	34.0 mm
Left tibia:	
maximum length	82.0 mm

Burial 18

Description: Fragmented long bones were the only remains recovered from this probable stone-box grave. Previous vandal activity had virtually destroyed this burial. No grave goods were recovered.

Age: adult

Sex: male

Pathology: none noted

Anomaly: none noted

Metrics:

Right femur:	
circumference at midshaft	96.0 mm

Burial 19

Description: Previous looting activity had severely disturbed this rectangular stone-box. Several leg bone fragments and part of a shell-tempered ceramic vessel were recovered from this earthen floor grave.

Age: adult

Sex: unknown

Pathology: none noted

Anomaly: none noted

Metrics: none taken

Burial 20

Description: This small, rectangular stone-box contained the poorly preserved remains of a fetal/newborn infant. A stone floor was prepared for this individual. The removal notes do not provide the position of the body. No grave artifacts were recorded.

Age: fetal/newborn

Sex: unknown

Pathology: none noted

Anomaly: none noted

Metrics:

Left femur:

maximum length	70.0 cm

Burial 21

Description: This capped, rectangular stone-box contained the moderately-preserved remains of an adult female that had been placed on a stone floor in an extended position. Probable rodent activity present in lower third of stone coffin. No artifacts were recovered from this grave.

Age: 40 years +/- 5 years

Sex: female

Pathology: Antemortem tooth loss; mandibular abscess P4 and M1; moderate arthritic lipping present in most post-cranial bones;

Anomaly: Enamel pearl mandibular P4

Metrics:

Right femur:

maximum diameter of head	40.2 mm
circumference at midshaft	73.0 mm

Burial 22

Description: Burial 22 comprised an extended adult female laid on a stone floor within a rectangular stone-box. Capstones were visible when the grave was initially exposed. Unfortunately, this burial was partially vandalized prior to removal. Shell-tempered ceramic sherds were present in the burial fill.

Age: 50+ years

Sex: female

Pathology: Antemortem tooth loss and resorption, osteoma above meatus; granulated articular surface of ilium.

Anomaly: none noted

Metrics:

Right femur:

circumference at midshaft	75.0 mm

Burial 23

Description: The partial remains of an infant were buried within a small, rectangular pit. Removal notes do not indicate in what position this individual was placed. Somewhat

unusual is the fact that nearly all skeletal elements below the torso are missing from the grave. No burial goods were retrieved.

Age: 1 year +/- 3 months
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 24

Description: This small, rectangular stone-box contained the fragmented remains of an infant. Some capstones were still in place, as was the stone floor. No artifacts were recovered with this burial.

Age: 1 year +/- 3 months
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics:

Right femur:

Maximum length	116.0 mm

Burial 25

Description: The remains of this extended individual were not placed within a stone-box. The removal notes are not clear about the method of interment, although the head was located at the feet of (stone-box) Burial 26. No grave goods were present.

Age: 11 years +/- 9 months
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 26

Description: This burial consisted of a rectangular stone-box that contained the remains of a child placed in an extended position upon an earth floor. No burial artifacts were recovered. Similar to Burial 22, this grave had been vandalized shortly after exposure.

Age: 6 years +/- 5 months
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics:

Left humerus:

maximum length	157.0 mm

Right femur:

maximum length	212.0 mm

Burial 27

Description: The adult female within this rectangular stone-box was laid in an extended position on a stone floor. A large capstone at the top of the grave had collapsed, causing severe damage to the cranium and mandible. Also, some looting activity was apparent within the coffin center. No grave items were observed.

Age: 45 years +/- 5 years

Sex: female

Pathology: Antemortem tooth loss; remaining teeth extremely worn; caries in distal cleft of 2nd mandibular molar; arthritic lipping in vertebrae, extreme in lumbar vertebrae (13 mm osteophyte from margin)

Anomaly: none noted

Metrics:

Right humerus:

Maximum length	310.0 mm
Maximum diameter of head	41.0 mm

Burial 28

Description: This small, rectangular stone-box contained a newborn/infant placed in an extended position on an earth floor. The removal notes suggest this individual was laid to rest on his/her stomach. However, the photographic documentation cannot confirm this statement, and there is no map of the skeletal remains to consult. No grave goods were discovered.

Age: newborn to 6 months

Sex: unknown

Pathology: none noted

Anomaly: none noted

Metrics:

Right femur:

maximum length	103.0 mm

Burial 29

Description: Burial 29 comprised a rather small, rectangular, partially capped stone-box grave. The interred individual was placed in an extended position upon an earth floor. No artifacts were found in this grave.

Age: 6 years +/- 1 year

Sex: unknown

Pathology: Hypoplasia on maxillary incisor.

Anomaly: none noted

Metrics:

Right femur:

maximum length	235.0 mm

Burial 30

Description: Several foot and (lower leg?) long bone fragments were the only remains recovered from this rectangular, stone-box grave. Many of the side stones were missing from this obviously looted burial. Floor appears to have been earth. No grave artifacts were recorded.

Age: adult

Sex: female (based on size of talus bone)

Pathology: none noted

Anomaly: none noted

Metrics: none taken

Burial 31

Description: This rectangular stone-box contained the well-preserved remains of an adult male. An earth floor was prepared for this individual that had been placed in an extended position. No grave items were retrieved.

Age: 35-40 years

Sex: male

Pathology: Arthritic lipping on thoracic vertebrae.

Anomaly: Third molars in maxillary and mandibular dentition did not erupt.

Metrics:

Right femur:	
maximum diameter of head	45.6 mm
circumference of midshaft	82.0 mm
Left tibia:	
Maximum length	349.0 mm

Burial 32

Description: Plowing heavily damaged this rectangular stone-box grave. Fragmented skeletal elements were exposed on the earth floor. The individual was placed in an extended position. No grave goods were found.

Age: 40 years +/- 5 years

Sex: male

Pathology: Arthritic lipping visible on 1st sacral vertebrae.

Anomaly: none noted

Metrics: none taken

Burial 33

Description: This unusual interment consisted of a young child placed in a rectangular pit lined with ceramic pan sherds. Pan sherds were also observed on top of this extended individual when the grave was first exposed. The only difference between Burial 33 and other site graves is the coffin construction material. The removal notes do not include a detailed discussion or drawing of this grave. No artifacts were recorded.

Age: about 3 years

Sex: unknown

Pathology: none noted
Anomaly: none noted
Metrics:
Left femur:
maximum length 140.0 mm

Burial 34

Description: Burial 34 represents a very small, rectangular stone-box containing the remains of a fetal/newborn infant. This individual was placed in an extended position on a floor of ceramic sherds. Capstones had been previously removed. No grave goods were reported.
Age: fetal/newborn
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics:
Left femur:
maximum length 71.5 mm

Burial 35

Description: This small, rectangular stone-box yielded the fragmented remains of a young child that had been laid in an extended position on an earth floor. No artifacts were reported from this grave.
Age: 2 years +/- 6 months
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 36

Description: Previous looting activity had severely disturbed this small, rectangular stone-box. Fragmented skeletal elements from an extended individual were recovered from a stone floor. No grave goods were observed.
Age: 1 year +/- 3 months
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 37

Description: Most of the skeletal elements associated with this young individual were present (but fragmented) within this small, rectangular stone-box. Burial 37 had been laid in an extended position on an earth floor. No artifactual material was recorded within this grave.

Age: 3.5 years +/- 6 months
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 38

Description: Burial 38 consisted of the relatively complete, but fragmentary, remains of a child within a rectangular stone-box. This individual had been placed in an extended position on a stone floor. The upper half of this grave may have been vandalized. No grave goods were found.
Age: child
Sex: 5 years +/- 6 months
Pathology: none noted
Anomaly: none noted
Metrics:

Left humerus:	
maximum length	155.0 mm

Burial 39

Description: This small, rectangular stone-box yielded the fragmented remains of an infant that had been placed in an extended position on a floor of ceramic sherds. No mortuary artifacts were recorded with this burial.
Age: 9 months +/- 2 months
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 40

Description: Fragmentary, yet relatively complete, remains of an infant were removed from Burial 40. The body had been placed within a rectangular stone-box on a floor of stone slabs in an extended position. No grave artifacts were observed.
Age: 18 months +/- 3 months
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 41

Description: This well-constructed, rectangular stone-box contained a robust adult male laid to rest in an extended position with his hands crossed over the pelvic region. The removal notes do not indicate what material the floor was made of. No artifacts had been placed with this person.

Age: 45 years +/- 5 years
Sex: male
Pathology: Antemortem tooth loss; mandibular abscess on buccal side; extensive arthritic lipping on ulna and lumbar vertebrae; fine granular appearance on left and right pubic symphysis.
Anomaly: none noted
Metrics:

Left humerus:	
maximum length	320.0 mm
Right femur:	
maximum length	432.0 mm
bicondylar length	83.0 mm
circumference at midshaft	83.0 mm

Burial 42

Description: Burial 42 comprised a male subadult placed in an extended position within a rectangular stone-box grave. The removal notes state there was "partial flexing of the legs", but do not include a map or photograph to elaborate on this statement. Notes also fail to indicate type of floor. No grave goods were recovered from this burial.
Age: 12 years +/- 6 months
Sex: male
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 43

Description: This adult female was buried in a rectangular stone-box with a stone floor. The body was laid in an extended position. No artifacts were observed with the remains.
Age: 30 years +/- 5 years
Sex: female
Pathology: Caries noted in several teeth; slight arthritic lipping on vertebrae.
Anomaly: none noted
Metrics:

Left femur:	
circumference at midshaft	79.0 mm
Right femur:	
maximum diameter of head	31.0 mm
circumference at midshaft	77.0 mm

Burial 44

Description: Few skeletal fragments were recovered from this severely disturbed, rectangular stone-box. The individual was probably placed in an extended position on an earth floor. No grave artifacts were retrieved.

Age: adult
Sex: male
Pathology: none noted
Anomaly: none noted
Metrics:
Femur: (side unknown)
circumference at midshaft 95.0 mm

Burial 45

Description: Burial 45 was severely disturbed by the backhoe as well as previous looting activity. The dimensions of this stone-box were generally indeterminate. Highly fragmented skeletal elements were recovered from an earth floor. No artifacts were found in this grave.
Age: about 35 years
Sex: male?
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 46

Description: This rectangular stone-box grave was severely disturbed by prior graverobbing activity. The skeletal remains were extremely fragmented. No grave items were found.
Age: 25-30 years
Sex: male
Pathology: Hypoplasia visible on several teeth; hypocementosis present on teeth roots.
Anomaly: none noted
Metrics:
Right femur:
circumference at midshaft 85.0 mm

Burial 47

Description: This rectangular stone-box was severely disturbed by the backhoe during the removal process. The removal notes do not provide information on body position or floor type. No artifacts were retrieved from the grave. Laboratory analysis of the skeletal remains recovered from Burial 47 identified three different individuals (adult female, adult male, and a child). However, the adult male and child were represented by extraneous skeletal elements, a ramus and right 2nd maxillary molar, respectively. The adult female was the occupant of the grave.
Age: about 25 years
Sex: female
Pathology: Calculus present on teeth; arthritic lipping on right humerus.
Anomaly: none noted
Metrics:
Right femur:

maximum diameter of head 41.0 cm
circumference of midshaft 81.0 cm

Burial 48A

Description: This rectangular stone-box contained the remains of two individuals that were placed in an extended position on a stone floor. Burial 48A represented the remains of an adult male. No information on body position was provided in the removal notes, although this may not have been available due to severe disturbance by the backhoe. No photographs of this burial were taken. No grave goods were found during the removal.

Age: 30 years +/- 5 years
Sex: male
Pathology: none noted
Anomaly: enamel pearl on one tooth
Metrics:
Femur: (side unknown)
circumference of midshaft 87.0 mm

Burial 48B

Description: This rectangular stone-box contained the remains of two individuals that were placed in an extended position on a stone floor. Burial 48B represented the remains of an individual under the age of 16 (unfused femur epiphysis). No information on body position was provided in the removal notes, although this may not have been available due to severe disturbance by the backhoe. No photographs of this burial were taken. No grave goods were found during the removal.

Age: under 16 years
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 49

Description: Cranial and dental remains were recovered from this (apparently disturbed) rectangular stone-box. Burial 49 yielded no grave artifacts.

Age: 11 years +/- 9 months
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 50

Description: Burial 50 consisted of a (north to south) stone-box constructed perpendicular to the eastern edges of (east to west) stone-box burials 55 and 58. The northern portion of Burial 50 actually intrudes into the eastern end of Burial 58. This rectangular stone-

box contained the extended remains of a young child. The removal notes do not indicate the type of grave floor, and no photographs are available. No artifacts were retrieved from this grave.

Age: 4 years +/- 9 months
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 51

Description: The removal notes contained very little information about this pit burial. There was no information regarding pit dimensions, burial position, or associated grave goods. No photographs were available for consultation.

Age: 30 years +/- 5 years
Sex: female
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 52

Description: This oval pit contained the partial remains of an adult female. Information regarding burial position was not provided in the burial notes. No photographs were available for consultation. Grave goods were not present in this grave.

Age: adult
Sex: female
Pathology: none noted
Anomaly: none noted
Metrics:

Femur: (side unknown)

circumference at midshaft	75.0 mm

Burial 53

Description: Burial 53 consisted of a rectangular stone-box with the remains placed in an extended position on an earth floor. A ceramic vessel had been placed at the feet of this individual.

Age: child
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 54

Description: Unfortunately, the removal notes for this adult pit burial provide no information regarding pit dimensions, burial position, or associated grave goods.

Age: 25-30 years
Sex: female
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 55

Description: Burial 55 contained the extended remains of an adult female placed on a stone floor. This rectangular stone-box was fairly well-preserved with some capstones still in place. No grave goods were found, although an extraneous right ulna (male) was identified among the skeletal remains.
Age: about 30 years
Sex: female
Pathology: none noted
Anomaly: none noted
Metrics:
Right femur:
circumference at midshaft 75.0 mm

Burial 56

Description: This rectangular stone-box had been partially disturbed by previous looting activity. The remains of this robust individual were placed in an extended position on an earth floor. No grave artifacts were present.
Age: 35+ years
Sex: male
Pathology: none noted
Anomaly: none noted
Metrics:
Right femur:
Circumference at midshaft 100.0 mm

Burial 57

Description: Capstones were present over one end of this rectangular stone-box. The poorly preserved remains of this extended individual were recovered from an earth floor. No artifacts were found in this gave.
Age: 30 years +/- 5 years
Sex: female
Pathology: Periostitis present on external and internal surfaces of cranium.
Anomaly: none noted
Metrics:
Right femur:
circumference at midshaft 66.0 mm

Burial 58

Description: Several capstones had collapsed into with this rectangular stone-box. This individual had been placed buried in an extended position. The removal notes do not indicate the type of floor. No grave artifacts were found.

Age: 30 years +/- 5 years

Sex: female

Pathology: Antemortem tooth loss.

Anomaly: none noted

Metrics:

Right femur:

circumference at midshaft	77.0 mm

Burial 59

Description: The removal notes indicate consultant confusion about this particular burial. There was a question whether these skeletal remains were actually placed in a grave or merely piled up by looters. Unfortunately, no maps or photographs were prepared to show the grave or position of the skeletal elements. Laboratory analysis of the skeletal remains determined one individual had been placed at this location.

Age: 35+ years

Sex: male

Pathology: Teeth completely worn below cervical neck.

Anomaly: none noted

Metrics: none taken

Burial 60

Description: The adolescent within this rectangular stone-box had been interred in an extended position on an earth floor. Two ceramic vessels were buried with this individual, one vessel at the waist and the other at the feet.

Age: 11 years +/- 9 months

Sex: unknown

Pathology: none noted

Anomaly: none noted

Metrics:

Left Ilium:

breadth	100.0 mm

Burial 61

Description: Burial 61 consisted of the an adult male buried within an (oval to rectangular?) unlined pit. The removal notes do not indicate the burial position, and no photographs were available for consultation. The southern end of this pit was intruded upon by Burial 53. No grave goods were associated with this individual.

Age: 30 years +/- 5 years

Sex: male

Pathology: Osteomyelitis on right femur shaft, with perforations showing drainage of septic material; right femur also possibly fractured.
Anomaly: none noted
Metrics:
Right femur:
circumference at midshaft 88.0 mm

Burial 62

Description: The poorly preserved remains of an adult female placed in an extended position were observed within this rectangular stone-box. The removal notes fail to indicate the type of grave floor, and photographs were not available for consultation. No artifacts were retrieved from this burial.
Age: 30 years +/- 5 years
Sex: female
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 63

Description: This (oval to rectangular?) pit burial yielded the poorly preserved remains of an adolescent female. The removal notes do not indicate the burial position. One ceramic vessel was recovered from this burial, although the removal notes do not state where it originated.
Age: 15 years +/- 6 months
Sex: female
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 64

Description: The removal notes characterize Burial 64 as very confusing. The individual was apparently interred between (stone-box) Burials 46 and 48. No stone slabs could be attributed to the skeletal remains. The position of the skeletal elements was not provided in the removal notes. Previous plow activity also appeared to have disturbed this grave.
Age: adult
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 65 (Figures 95 and 96)

Description: Burial 65 represents a rectangular stone-box that was constructed inside the palisade trench. This coffin was completely intact and all capstones were in place.

Figures 95 and 96. Burial 65 (field designation 55) in palisade trench prior to (left) and after (right) removal.

Inside the stone-box was a child that had been placed in an extended position on a stone floor. Cranial deformation (occipital flattening) was observed on the skull of this individual. Many skeletal elements had been displaced by water and rodent action. Also, the east end of the burial was at least 15 cm lower due to the slump of palisade postholes underneath the floor stones. No grave goods were present.

Age: 5 years +/- 9 months
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics:

Right humerus:	
maximum length	152.0 mm
Left ilium:	
breadth	74.0 mm
Left femur:	
maximum length	205.0 mm

Burial 66

Description: This small, oval pit contained the poorly preserved remains of a young child. The individual was placed on his/her side (left or right could not be accurately determined) in a flexed position. No grave goods were found with the skeletal remains.

Age: 4 years +/- 9 months
Sex: unknown
Pathology: Hypoplasia present on central incisors.
Anomaly: none noted
Metrics: none taken

Burial 67

Description: This severely disturbed grave was first identified as a jumble of stone slabs. Continued investigation recorded a rectangular stone-box with intact side walls and an earth floor. The skeletal remains were fragmented and completely displaced. No associated grave artifacts were recovered.

Age: 5 years
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 68

Description: Burial 68 was defined by a dark, rectangular stain in the subsoil, and subsequently recorded as the remnant of a looted stone-box burial. No intact slabs or skeletal remains were present. No grave goods were found.

Age: unknown
Sex: unknown

Pathology: unknown
Anomaly: unknown
Metrics: unknown

Burial 69

Description: The partial remains of an adult were recorded in an extended position on an earth floor. Looters had previously dug into this rectangular stone-box and piled many of the bones into one end. No grave items were retrieved from this burial.
Age: adult
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 70

Description: Looter activity has severely disturbed this small, rectangular stone-box. Most of the skeletal remains were missing, as miscellaneous dental and long bone fragments were the only elements recovered from the stone floor. One calcite/fluorite bead was found within the grave.
Age: 4 years
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 71

Description: This rectangular stone-box was severely disturbed by previous vandal activity. Many of the stones and skeletal remains were missing. Several long bones of an adult male placed in an extended position on an earth floor were exposed. No grave goods were found.
Age: adult
Sex: male
Pathology: none noted
Anomaly: none noted
Metrics:

Left femur:

circumference at midshaft	86.0 mm

Burial 72

Description: An adult male was placed in an extended position on an earth floor within this rectangular stone-box. Interestingly, the stone slabs were shale rather than limestone. The east end (feet) of this coffin intruded into an earlier Woodland period pit feature. Previous looter action had disturbed this grave. No associated grave items were

recovered from this burial. However, a number of artifacts from the feature (including an Adena projectile point) were found in the grave fill.

Age: 30 years +/- 5 years

Sex: male

Pathology: Hypoplasia on central incisor.

Anomaly: none noted

Metrics:

Left femur:

circumference at midshaft	86.0 mm

Burial 73

Description: The south half of this rectangular stone-box was filled with slabs and skeletal remains from previous looting action. An adult female had been placed in an extended position on a stone floor. No artifacts were retrieved from this grave.

Age: 35 years +/- 5 years

Sex: female

Pathology: none noted

Anomaly: none noted

Metrics: none taken

Burial 74

Description: Burials 74 and 75 comprise two rectangular stone-boxes with a shared side wall. These graves were initially believed to be a single burial denoted by a jumbled pile of stone slabs. After the loose slabs were removed, it became clear there were two separate graves that shared an interior wall. Both burials had been severely disturbed by previous looter activity, as evidenced by the mixed slabs and skeletal remains thrown back in the coffins. The individuals interred in these coffins were placed on an earth floor, most likely in an extended position. Burial 74 denotes the grave to the southwest. No grave items were reported.

Age: about 35 years

Sex: male

Pathology: Arthritic lipping on lumbar vertebrae.

Anomaly: none noted

Metrics:

Left femur:

maximum diameter of head	40.0 mm
circumference of midshaft	85.0 mm

Burial 75

Description: Burials 74 and 75 comprise two rectangular stone-boxes with a shared side wall. These graves were initially believed to be a single burial denoted by a jumbled pile of stone slabs. After the loose slabs were removed, it became clear there were two separate graves that shared an interior wall. Both burials had been severely disturbed by previous looter activity, as evidenced by the mixed slabs and skeletal remains thrown

back in the coffins. The individuals interred in these coffins were placed on an earth floor, most likely in an extended position. Burial 75 denotes the grave to the northeast. No grave items were reported.

Age: 30 years +/- 5 years
Sex: female
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 76

Description: This vandalized grave yielded the fragmented remains of an adult male. Most of the skeletal remains were fragmented and scattered throughout the looted hole. Several side stones were intact, but the rest of the coffin had been removed. No grave artifacts were found.

Age: 35-40 years
Sex: male
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 77

Description: This severely disturbed stone-box yielded the fragmented skeletal remains of an adult. Almost all of the coffin slabs and skeletal elements had been removed and redeposited inside the looter hole. No artifacts were found.

Age: adult
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 78

Description: Yet another highly disturbed stone-box that yielded a small amount of skeletal materials. Nearly all of the slabs and skeletal material had been removed and thrown back in the looter hole. This coffin was constructed on top of bedrock limestone. The bedrock may have been utilized as the grave floor. No grave goods were found.

Age: adult
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 79

Description: Portions of this rectangular stone-box survived the intrusion of looters in search of artifacts. Unfortunately, the skeletal remains were severely disturbed. The

adolescent interred in this grave had been placed upon a stone floor (likely in an extended position). This burial yielded no grave artifacts.

Age: 15 years +/- 6 months
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 80A (Figure 97)

Description: Burial 80 yielded the fragmented remains of two young children laid in an extended position on a dirt floor. One individual was placed on top of the other, with both heads at the eastern end of the coffin. Two ceramic vessels were buried with these children. An effigy bowl was positioned near the shoulder area, with the other at their feet.

Age: 4 years
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Figure 97. Burial 80 (field designation 14, lot 85) 1995 removal.

Burial 80B (see Figure 97)

Description: Burial 80 yielded the fragmented remains of two young children laid in an extended position on a dirt floor. One individual was placed on top of the other, with

both heads at the eastern end of the coffin. Two ceramic vessels were buried with these children. An effigy bowl was positioned near the shoulder area with the other at their feet.

Age: 4 years +/- 9 months
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 81

Description: This rectangular stone-box was severely disturbed by previous looting activity. Most of the side slabs, and all of the skeletal remains, were displaced. However, a portion of the ceramic floor was still intact. No grave items were found.

Age: 45+ years
Sex: male
Pathology: Arthritis on patella.
Anomaly: none noted
Metrics: none taken

Burial 82

Description: Burial 82 comprised an adult male placed in an extended position on a stone floor. Prior graverobbing action had displaced several side slabs and many of the skeletal remains (except the legs). No associated grave items were recovered.

Age: 30 years +/- 5 years
Sex: male
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 83

Description: This stone-box grave was completely destroyed by prior looting activity. Jumbled stone slabs and skeletal elements were discovered inside a large, oval to rectangular hole. Although no associated grave items were found, a glass Pepsi bottle was recovered from the hole.

Age: adult
Sex: male
Pathology: none noted
Anomaly: none noted
Metrics:

Left femur:

circumference at midshaft	90.0 mm

Burial 84

Description: Initially identified by a jumbled pile of stone slabs, Burial 84 was determined to be a rectangular stone box that contained an adult male interred in an extended position on an earth floor. This grave had been previously looted. No associated grave artifacts were present.

Age: adult

Sex: male

Pathology: none noted

Anomaly: none noted

Metrics:

Left femur:

circumference at midshaft	90.0 mm

Burial 85A

Description: Burial 80 consisted of a rectangular stone-box with the remains of two children. One individual (85A) was placed in an extended position on the stone floor. A ceramic bowl had been placed on the upper arm/shoulder area. The second person (85B) was represented by a cranium recorded just below the pelvis of Burial 85A. This second individual probably represents a later interment.

Age: 6 years +/- 9 months

Sex: unknown

Pathology: Hypoplasia on dental crowns.

Anomaly: none noted

Metrics:

Left femur:

Maximum length	210.0 mm

Burial 85B

Description: Burial 80 consisted of a rectangular stone-box with the remains of two children. One individual (85A) was placed in an extended position on the stone floor. A ceramic bowl had been placed on the upper arm/shoulder area. The second person (85B) was represented by a cranium recorded just below the pelvis of Burial 85A. This second individual probably represents a later interment.

Age: 5 years +/- 9 months

Sex: unknown

Pathology: none noted

Anomaly: none noted

Metrics: none taken

Burial 86

Description: A few skeletal fragments were recovered from this severely disturbed stone box. All but the north end of this coffin was displaced. No grave items were found.

Age: 35-40 years

Sex: unknown

Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 87 (Figures 98–100)

Description: This fully capped, rectangular stone-box was the only burial recorded during the lot 85 removal that was not damaged by agricultural practices or looting activity. The coffin was made of large, dressed shale capstones and side stones. On top of the shale capstones was a layer of much thicker limestone slabs. The adult male buried inside was placed in an extended position on an earth floor. Most of the shale side stones had collapsed inward, giving this stone-box an unusual appearance. No grave goods were present with this individual.

Age: about 40 years
Sex: male
Pathology: Arthritic lipping on vertebrae.
Anomaly: none noted
Metrics: none taken

Burial 88

Description: Burial 88 is comprised of a small, rectangular stone-box with a young child placed in an extended position on a stone floor. Previous looting activity had severely disturbed all but the upper torso and cranium. No burial items were observed.

Age: 3 years +/- 6 months
Sex: unknown
Pathology: Hypoplasia on incisor crowns.
Anomaly: none noted
Metrics: none taken

Burial 89 (Figure 101)

Description: Burials 89-91 comprise a cluster of three rectangular stone-boxes aligned in a row with shared sidewalls. Burial 89, the northernmost grave, was virtually destroyed by looting action. Small portions of the side and end walls were barely visible along with an earth floor. Few skeletal remains were present, and no grave items were found.

Age: 10 years +/- 9 months
Sex: unknown
Pathology: none noted
Anomaly: none noted
Metrics: none taken

Burial 90 (Figure 101)

Description: Burials 89-91 comprise a cluster of three rectangular stone-boxes aligned in a row with shared sidewalls. Burial 90 represents the southernmost stone-box that contained the remains of an adult male. This individual had been laid in an extended position on an earth floor. Looting activity has disturbed portions of this burial. The

Figure 98. Burial 87 (field designation 21, lot 85) fully capped, 1995 removal.

Figure 99. Burial 87 (field designation 21, lot 85) with top limestone slab layer removed to expose shale capstones, 1995 removal.

Figure 100. Burial 87 (field designation 21, lot 85) skeletal remains, 1995 removal. Note the collapsed side stones.

remains of a second person were found on top of the lower legs of Burial 90. At first, these remains were interpreted as a secondary bundle burial. Further analysis has shown these bones originated from Burial 91, and were thrown on top of Burial 90 during looting activity.

Age: 35-40 years
Sex: male
Pathology: none noted
Anomaly: none noted
Metrics:

Left femur:

maximum diameter of head	41.0 mm

circumference of midshaft 93.0 mm

Burial 91 (see Figure 101)

Description: Burials 89-91 comprise a cluster of three rectangular stone-boxes aligned in a row with shared sidewalls. Burial 91 represents the middle stone-box, which shares the north sidewall with Burial 89, and the south sidewall with Burial 90. Unlike the neighboring graves, this particular coffin has a stone floor. Prior graverobbing action has severely disturbed the skeletal remains. No grave goods were found.

Age: 35-40+ years

Sex: female

Pathology: none noted

Anomaly: none noted

Metrics: none taken

Figure 101. Burials 89-91 (field designations 23-25), lot 85 removal.

APPENDIX E

PROVENIENCE AND NUMBER OF RECOVERED LITHIC ARTIFACTS

Michael C. Moore

Provenience	Tested Cobble	Core	Thick Biface	Thin Biface	Primary Flake	Secondary Flake	Blank Flake	Blocky Debris	Modified/Utilized Flake	Rejuvination Flake	Projectile Point	Knife	Drill	Scraper	Chisel	Celt	Discodial	Disc	Bead	Gorget	Mano	Metate	Abrader	Unidentified Groundstone	Hammerstone	Total
Gen Surface	-	-	1	10	-	-	-	-	4	28	54	1	2	-	13	6	2	4	-	1	4	2	1	15	1	149
Monument	-	-	-	-	-	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Test Unit 1, L1	1	3	-	-	4	14	108	39	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	171
Test Unit 1, L2	-	2	2	1	-	12	46	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	86
Test Unit 2, L1	-	5	-	1	1	13	39	20	-	1	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	82
Test Unit 3, L1	-	-	1	-	3	15	68	22	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	112
Fill, SB-A	2	6	1	-	1	6	7	3	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	28
Fill, SB-B	-	30	5	1	16	57	89	19	1	11	9	-	1	-	3	-	-	-	-	-	-	-	-	4	1	247
Fill, SB-C	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2
Plow Strip A1	-	1	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Plow Strip A2	-	-	-	-	-	-	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Plow Strip A3	-	-	1	-	-	1	3	2	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	8
Plow Strip A4	-	2	1	-	5	6	14	6	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	36
Plow Strip A5	-	1	-	-	3	7	8	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22
Plow Strip A6	-	2	-	-	-	3	15	4	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	26
Plow Strip B1	-	4	1	-	-	7	14	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	33

Provenience	Tested Cobble	Core	Thick Biface	Thin Biface	Primary Flake	Secondary Flake	Blank Flake	Blocky Debris	Modified/Utilized Flake	Rejuvination Flake	Projectile Point	Knife	Drill	Scraper	Chisel	Celt	Discodial	Disc	Bead	Gorget	Mano	Metate	Abrader	Unidentified Groundstone	Hammerstone	Total
Plow Strip B2	-	2	-	-	-	1	8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
Plow Strip B3	-	-	-	-	-	2	8	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	13
Plow Strip B4	-	4	2	-	4	14	25	5	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56
Plow Strip B5	-	7	1	-	4	11	16	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52
Plow Strip B6	-	10	1	1	4	11	41	14	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84
Plow Strip C1	-	3	-	-	1	6	8	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21
Plow Strip C2	-	3	-	-	2	11	17	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37
Plow Strip C3	-	7	-	1	3	7	7	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29
Plow Strip C4	-	7	-	-	5	10	17	5	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46
Plow Strip C5	-	2	1	-	4	11	32	11	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62
Plow Strip C6	-	7	-	-	2	6	23	6	-	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	47
Plow Strip C7	-	8	-	-	4	17	34	10	-	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	78
Plow Strip D1	-	1	-	-	-	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Plow Strip D2	-	1	-	-	3	5	7	3	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22
Plow Strip D3	-	1	-	2	-	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
Plow Strip D4	-	1	-	-	-	7	11	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
Plow Strip D5	-	1	-	-	-	7	10	4	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Plow Strip D6	-	2	1	-	-	6	18	3	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31
Plow Strip D7	-	9	-	-	5	5	16	4	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41
Plow Strip E1	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip E2	-	2	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Plow Strip E3	-	1	-	1	-	4	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Plow Strip E4	-	-	-	1	3	-	4	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	12

Provenience	Tested Cobble	Core	Thick Biface	Thin Biface	Primary Flake	Secondary Flake	Blank Flake	Blocky Debris	Modified/Utilized Flake	Rejuvination Flake	Projectile Point	Knife	Drill	Scraper	Chisel	Celt	Discodial	Disc	Bead	Gorget	Mano	Metate	Abrader	Unidentified Groundstone	Hammerstone	Total
Plow Strip E5	-	2	1	-	2	4	11	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22
Plow Strip E6	-	4	-	-	1	6	21	3	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37
Plow Strip E7	-	6	-	-	3	8	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32
Plow Strip E8	-	1	-	-	-	2	7	2	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Plow Strip F1	-	1	-	-	2	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Plow Strip F2	-	1	-	-	-	7	8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
Plow Strip F3	-	1	-	-	-	2	8	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	14
Plow Strip F4	-	4	-	-	-	5	6	2	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
Plow Strip F5	-	3	1	-	1	4	8	3	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22
Plow Strip F6	-	11	-	1	2	7	21	6	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52
Plow Strip F7	-	8	1	1	4	5	14	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34
Plow Strip F8	1	8	-	1	1	6	11	5	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	35
Plow Strip G1	-	2	-	-	-	2	4	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Plow Strip G2	-	2	1	1	1	5	10	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Plow Strip G3	-	-	-	-	-	8	7	6	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22
Plow Strip G4	-	8	-	1	-	2	15	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33
Plow Strip G5	-	-	-	1	1	4	4	4	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	15
Plow Strip G6	-	2	-	1	2	4	13	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	24
Plow Strip G7	-	2	-	-	2	8	21	6	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40
Plow Strip G8	-	1	-	-	-	2	6	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Plow Strip H1	-	-	-	-	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Plow Strip H2	-	1	-	-	-	5	6	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Plow Strip H3	-	1	1	1	-	2	2	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8

Provenience	Tested Cobble	Core	Thick Biface	Thin Biface	Primary Flake	Secondary Flake	Blank Flake	Blocky Debris	Modified/Utilized Flake	Rejuvination Flake	Projectile Point	Knife	Drill	Scraper	Chisel	Celt	Discodial	Disc	Bead	Gorget	Mano	Metate	Abrader	Unidentified Groundstone	Hammerstone	Total
Plow Strip H4	-	-	-	-	-	7	6	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Plow Strip H5	-	-	-	-	1	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Plow Strip H6	-	3	2	-	1	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Plow Strip H7	-	1	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Plow Strip H8	-	-	-	-	-	1	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Plow Strip H9	-	-	1	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Plow Strip I2	-	-	-	-	2	2	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Plow Strip I3	-	1	-	-	-	3	6	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Plow Strip I4	-	1	-	-	-	-	7	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Plow Strip I5	-	-	-	-	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Plow Strip I6	-	-	-	-	1	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Plow Strip I7	-	-	-	-	-	-	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Plow Strip I8	-	1	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Plow Strip I10	-	1	-	-	-	3	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
Plow Strip J1	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip J2	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip J3	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip J4	-	2	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Plow Strip J5	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Plow Strip J6	-	-	-	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Plow Strip J7	-	1	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Plow Strip J8	-	-	-	-	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Plow Strip J9	-	-	-	-	-	-	8	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10

Provenience	Tested Cobble	Core	Thick Biface	Thin Biface	Primary Flake	Secondary Flake	Blank Flake	Blocky Debris	Modified/Utilized Flake	Rejuvination Flake	Projectile Point	Knife	Drill	Scraper	Chisel	Celt	Discodial	Disc	Bead	Gorget	Mano	Metate	Abrader	Unidentified Groundstone	Hammerstone	Total
Plow Strip K1	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip K4	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip K6	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip K10	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Plow Strip L2	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip L4	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip L5	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Plow Strip L6	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip L8	-	2	-	-	-	1	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Plow Strip L9	-	1	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Plow Strip L10	-	2	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Plow Strip M2	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip M4	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip M7	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip M8	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip M9	-	1	-	-	-	3	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Plow Strip M10	-	-	-	-	-	2	13	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Plow Strip N1	-	-	-	-	-	-	2	-	-	-	-	-	-	--	-	-	-	-	-	-	-	-	-	-	2	4
Plow Strip N3	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip N4	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip N5	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip N7	-	-	1	-	-	-	11	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Plow Strip N8	-	-	-	-	-	1	33	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37

Provenience	Tested Cobble	Core	Thick Biface	Thin Biface	Primary Flake	Secondary Flake	Blank Flake	Blocky Debris	Modified/Utilized Flake	Rejuvination Flake	Projectile Point	Knife	Drill	Scraper	Chisel	Celt	Discodial	Disc	Bead	Gorget	Mano	Metate	Abrader	Unidentified Groundstone	Hammerstone	Total
Plow Strip N9	-	2	-	1	-	6	47	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	58
Plow Strip O1	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip O2	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Plow Strip O3	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip O5	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip O6	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip O7	-	1	-	1	-	1	17	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Plow Strip O8	-	1	-	-	-	1	24	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27
Plow Strip O9	-	5	-	1	2	1	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32
Plow Strip O10	-	1	1	-	2	3	43	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54
Plow Strip P7	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip P8	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip P9	-	-	-	-	-	2	9	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Plow Strip Q1	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Plow Strip Q2	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip Q5	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Plow Strip Q6	-	1	-	-	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Plow Strip Q7	-	1	1	-	1	2	11	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Plow Strip Q8	-	1	-	-	2	3	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Plow Strip Q9	-	3	-	-	-	1	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Plow Strip R5	-	-	1	-	-	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Plow Strip R6	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Plow Strip R7	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

Provenience	Tested Cobble	Core	Thick Biface	Thin Biface	Primary Flake	Secondary Flake	Blank Flake	Blocky Debris	Modified/Utilized Flake	Rejuvination Flake	Projectile Point	Knife	Drill	Scraper	Chisel	Celt	Discodial	Disc	Bead	Gorget	Mano	Metate	Abrader	Unidentified Groundstone	Hammerstone	Total
Plow Strip R8	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Plow Strip R9	-	1	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
BHT-A	-	3	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
BHT-K	-	19	2	2	9	67	196	29	2	3	3	-	-	-	-	-	-	-	-	-	1	-	-	4	-	337
Burial 46	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Burial 49	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Burial 61	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Burial 70	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	1	-	-	-	-	-	-	3
Burial 72	-	-	-	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	3
Feature 8	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 12	-	-	-	-	-	-	3	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 14	-	3	1	1	1	1	80	13	1	1	4	-	1	-	-	-	-	-	-	-	-	-	-	1	-	108
Feature 15	-	1	-	3	4	16	49	3	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80
Feature 16	-	-	-	-	-	1	9	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Feature 18	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 20	-	26	1	5	19	104	218	51	-	12	10	-	-	-	-	-	-	4	1	-	-	1	-	3	-	455
Feature 21	-	-	-	-	-	1	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 26	-	-	-	-	1	-	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Feature 27	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 28	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 30	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 36	-	22	4	1	14	80	186	31	-	3	6	-	-	-	1	-	-	1	1	-	1	-	-	1	-	352
Feature 43	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2

Provenience	Tested Cobble	Core	Thick Biface	Thin Biface	Primary Flake	Secondary Flake	Blank Flake	Blocky Debris	Modified/Utilized Flake	Rejuvination Flake	Projectile Point	Knife	Drill	Scraper	Chisel	Celt	Discodial	Disc	Bead	Gorget	Mano	Metate	Abrader	Unidentified Groundstone	Hammerstone	Total
Feature 44	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 45	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 46	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 51	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 52	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 53	-	1	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 61	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 62	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 64	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 69	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 70	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 78	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 80	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 82	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 83	-	-	-	-	-	-	6	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Feature 84	-	-	-	-	-	-	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Feature 86	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 87	-	-	-	-	-	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Feature 88	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 89	-	3	1	-	1	6	68	14	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	96
Feature 92	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 93	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 96	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2

Provenience	Tested Cobble	Core	Thick Biface	Thin Biface	Primary Flake	Secondary Flake	Blank Flake	Blocky Debris	Modified/Utilized Flake	Rejuvination Flake	Projectile Point	Knife	Drill	Scraper	Chisel	Celt	Discodial	Disc	Bead	Gorget	Mano	Metate	Abrader	Unidentified Groundstone	Hammerstone	Total
Feature 99	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 101	1	32	4	-	33	127	379	145	3	6	6	-	-	-	1	1	-	1	-	2	-	-	1	-	1	743
Feature 102	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 105	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 106	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 107	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 108	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 109	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 110	-	1	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 112	-	-	-	-	-	-	6	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Feature 118	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 120	-	-	-	-	-	1	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Feature 124	-	-	-	-	-	1	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Feature 126	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 131	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 136	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 140	-	-	-	-	1	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 141	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 143	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 146	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 152	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Feature 156	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 157	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

Provenience	Tested Cobble	Core	Thick Biface	Thin Biface	Primary Flake	Secondary Flake	Blank Flake	Blocky Debris	Modified/Utilized Flake	Rejuvination Flake	Projectile Point	Knife	Drill	Scraper	Chisel	Celt	Discodial	Disc	Bead	Gorget	Mano	Metate	Abrader	Unidentified Groundstone	Hammerstone	Total
Feature 162	-	2	-	-	1	3	9	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
Feature 194	1	1	2	-	2	3	16	3	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29
Feature 196	-	3	-	-	-	-	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Feature 359	-	4	1	-	1	9	22	4	-	1	1	-	-	-	1	1	-	-	-	-	-	-	1	-	-	46
Feature 371	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 392	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 587	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	2	-	7
Feature 588	-	3	-	-	-	7	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Feature 695	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Feature 696	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Feature 702	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 715	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 738	-	1	-	-	3	6	144	13	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	168
Feature 739	-	-	-	-	-	2	158	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160
Feature 740	-	-	-	-	1	8	199	12	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	223
Feature 741	-	-	-	-	2	1	12	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Feature 742	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Feature 863	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Feature 880	-	13	-	-	-	10	32	7	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	67
TOTAL	**6**	**385**	**50**	**44**	**207**	**932**	**3285**	**694**	**17**	**84**	**141**	**2**	**5**	**1**	**25**	**8**	**2**	**14**	**3**	**3**	**8**	**4**	**4**	**34**	**6**	**5964**

APPENDIX F

FREQUENCY OF FAUNAL REMAINS

Emanuel Breitburg and Michael C. Moore

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Gen Surface	human	1	L	shaft	femur	-	-	-
Gen Surface	large mammal	2	-	-	-	-	-	-
Gen Surface	black bear	1	L	-	mandibular m2	-	-	-
Gen Surface	box turtle	1	-	-	carapace fragment	-	-	-
Gen Surface	white-tail deer	1	-	shaft	mc fragment	-	-	-
Gen Surface	white-tail deer	3	-	shaft	rib	-	-	-
Gen Surface	white-tail deer	1	L	prox	radius	-	-	-
Gen Surface	white-tail deer	1	R	-	mt ant portion	-	-	-
Gen Surface	white-tail deer	1	R	-	mand m2 (some polish)	-	1	-
Gen Surface	white-tail deer	1	R	dist	humerus	-	-	-
Gen Surface	white-tail deer	1	R	shaft	tibia	-	-	-
Gen Surface	white-tail deer	1	R	dist	tibia portion	-	-	-
Gen Surface	white-tail deer	2	R	prox	radius	-	-	-
Gen Surface	white-tail deer	1	R	prox	femur shaft	-	-	-
Gen Surface	domestic dog	1	L	-	humerus portion	-	-	-
Subtotal		*19*				-	*1*	-
Strp Blk A, Fill	bird	2	-	-	-	-	-	-
Strp Blk A, Fill	human	1	-	shaft	femur	-	-	-
Strp Blk A, Fill	human	1	-	-	lumbar vertebra (adult)	-	-	-
Strp Blk A, Fill	human	4	-	-	rib fragments (adult)	-	-	-
Strp Blk A, Fill	human	1	L	-	ascending ramus (child)	-	-	-
Strp Blk A, Fill	human	2	L	-	femur (adult)	-	-	-
Strp Blk A, Fill	human	1	L	shaft	femur (child)	-	-	-
Strp Blk A, Fill	human	1	R	-	occipital portion (child)	-	-	-
Strp Blk A, Fill	large mammal	33	-	-	-	-	-	-
Strp Blk A, Fill	box turtle	1	-	-	plastron portion	-	-	-
Strp Blk A, Fill	white-tail deer	1	-	-	atlas vertebra	-	-	-
Strp Blk A, Fill	white-tail deer	1	-	shaft	rib	1	-	-
Strp Blk A, Fill	white-tail deer	1	-	shaft	ulna fragment	-	-	-
Strp Blk A, Fill	white-tail deer	2	L	dist	humerus	-	-	-
Strp Blk A, Fill	white-tail deer	1	L	dist	tibia	-	-	-
Strp Blk A, Fill	white-tail deer	1	L	post	tibia shaft	-	-	-
Strp Blk A, Fill	white-tail deer	1	L	prox	mt	-	-	-
Strp Blk A, Fill	white-tail deer	1	L	prox	radius	-	-	-
Strp Blk A, Fill	white-tail deer	1	R	dist	humerus	-	-	-
Strp Blk A, Fill	white-tail deer	1	R	prox	mc	-	-	-
Strp Blk A, Fill	white-tail deer	1	R	prox	tf portion	-	-	-
Strp Blk A, Fill	white-tail deer	1	R	prox	tibia	-	-	-
Strp Blk A, Fill	wild turkey	1	L	shaft	tbt	-	-	-
Strp Blk A, Fill	wapiti	1	R	dist	humerus portion	-	-	-
Subtotal		*62*				*1*	-	-
Strp Blk B, Fill	bird	20	-	-	-			
Strp Blk B, Fill	human	1	-	shaft	long bone	-	-	-
Strp Blk B, Fill	human	1	-	-	rib	-	-	-
Strp Blk B, Fill	large mammal	143	-	-	-	7	-	-
Strp Blk B, Fill	turtle	4	-	-	-	1	-	-
Strp Blk B, Fill	wapiti	1	-	shaft	rib portion	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Strp Blk B, Fill	box turtle	3	-	-	carapace	2	-	-
Strp Blk B, Fill	box turtle	1	-	-	marginal bone	-	-	-
Strp Blk B, Fill	box turtle	12	-	-	plastron portions	1	-	-
Strp Blk B, Fill	black bear	1	-	-	cranial fragment	-	-	-
Strp Blk B, Fill	black bear	1	-	shaft	fibula	-	-	-
Strp Blk B, Fill	black bear	2	-	shaft	rib	-	-	-
Strp Blk B, Fill	black bear	1	L	shaft	femur portion (scraped)	-	-	1
Strp Blk B, Fill	black bear	1	L	dist	femur shaft	-	-	-
Strp Blk B, Fill	black bear	1	L	dist	tibia	-	-	-
Strp Blk B, Fill	black bear	1	L	dist	ulna	-	-	-
Strp Blk B, Fill	beaver	1	-	-	clavicle	-	-	-
Strp Blk B, Fill	canada goose	1	L	-	cmc	-	-	-
Strp Blk B, Fill	cottontail rabbit	1	R	-	ramus portion	-	-	-
Strp Blk B, Fill	white-tail deer	1	-	-	1st 3/4	-	-	-
Strp Blk B, Fill	white-tail deer	5	-	shaft	mc	2	-	-
Strp Blk B, Fill	white-tail deer	1	-	-	alveolar fragment	-	-	-
Strp Blk B, Fill	white-tail deer	5	-	shaft	femur	-	-	-
Strp Blk B, Fill	white-tail deer	2	-	shaft	humerus portion	-	-	-
Strp Blk B, Fill	white-tail deer	8	-	shaft	mtp	3	-	-
Strp Blk B, Fill	white-tail deer	1	-	-	patella fragment	1	-	-
Strp Blk B, Fill	white-tail deer	1	-	-	pubic fragment	-	-	-
Strp Blk B, Fill	white-tail deer	3	-	shaft	radius	-	-	-
Strp Blk B, Fill	white-tail deer	7	-	-	rib fragment	1	-	-
Strp Blk B, Fill	white-tail deer	6	-	-	scapula blade portion	-	-	-
Strp Blk B, Fill	white-tail deer	1	-	-	thoracic spinous	-	-	-
Strp Blk B, Fill	white-tail deer	3	-	shaft	tibia	-	-	-
Strp Blk B, Fill	white-tail deer	2	-	shaft	ulna	1	-	-
Strp Blk B, Fill	white-tail deer	1	-	-	vertebra fragment	-	-	-
Strp Blk B, Fill	white-tail deer	1	-	dist	mt shaft	-	-	-
Strp Blk B, Fill	white-tail deer	2	L	-	tf	-	-	-
Strp Blk B, Fill	white-tail deer	1	L	-	tt	-	-	-
Strp Blk B, Fill	white-tail deer	2	L	shaft	femur	-	-	-
Strp Blk B, Fill	white-tail deer	4	L	shaft	humerus	-	-	-
Strp Blk B, Fill	white-tail deer	2	L	-	innominate portions	-	-	-
Strp Blk B, Fill	white-tail deer	2	L	-	scapula portions	-	-	-
Strp Blk B, Fill	white-tail deer	1	L	shaft	tibia	-	-	-
Strp Blk B, Fill	white-tail deer	1	L	shaft	ulna	-	-	-
Strp Blk B, Fill	white-tail deer	7	L	dist	humerus	-	-	-
Strp Blk B, Fill	white-tail deer	5	L	dist	tibia	-	-	-
Strp Blk B, Fill	white-tail deer	1	L	prox	mc	-	-	-
Strp Blk B, Fill	white-tail deer	2	L	prox	femur	-	-	-
Strp Blk B, Fill	white-tail deer	2	L	prox	radius	-	-	-
Strp Blk B, Fill	white-tail deer	1	L	prox	ulna	-	-	-
Strp Blk B, Fill	white-tail deer	2	R	-	tf	-	-	-
Strp Blk B, Fill	white-tail deer	1	R	-	tt	-	-	-
Strp Blk B, Fill	white-tail deer	1	R	shaft	femur	-	-	-
Strp Blk B, Fill	white-tail deer	3	R	shaft	humerus	-	-	-
Strp Blk B, Fill	white-tail deer	2	R	-	innominate portions	-	-	-
Strp Blk B, Fill	white-tail deer	1	R	-	mand dp4	1	-	-
Strp Blk B, Fill	white-tail deer	4	R	-	scapula portion	-	-	-
Strp Blk B, Fill	white-tail deer	7	R	shaft	tibia	-	-	-
Strp Blk B, Fill	white-tail deer	5	R	dist	humerus	-	-	-
Strp Blk B, Fill	white-tail deer	1	R	dist	radius epiphysis ab	-	-	-
Strp Blk B, Fill	white-tail deer	5	R	dist	tibia	-	-	-
Strp Blk B, Fill	white-tail deer	1	R	prox	mc	-	-	-
Strp Blk B, Fill	white-tail deer	1	R	prox	femur (fused)	-	-	-
Strp Blk B, Fill	white-tail deer	6	R	prox	radius	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Strp Blk B, Fill	white-tail deer	1	R	prox	tibia	-	-	-
Strp Blk B, Fill	white-tail deer	1	R	prox	ulna (awl)	-	-	1
Strp Blk B, Fill	fox squirrel	1	L	-	frontal portion	1	-	-
Strp Blk B, Fill	redhorse	1	L	-	maxilla	-	-	-
Strp Blk B, Fill	wild turkey	1	-	-	fibula	-	-	-
Strp Blk B, Fill	wild turkey	1	-	shaft	ulna fragment	-	-	-
Strp Blk B, Fill	wild turkey	2	L	-	humerus portion	-	-	-
Strp Blk B, Fill	wild turkey	1	L	-	tbt (polished/scored)	-	1	1
Strp Blk B, Fill	wild turkey	1	L	-	tmt (male)	-	-	1
Strp Blk B, Fill	wild turkey	2	L	-	tmt portion (1 male/1female)	-	-	-
Strp Blk B, Fill	wild turkey	1	L	dist	tbt	-	-	-
Strp Blk B, Fill	wild turkey	1	R	-	humerus portion	-	-	-
Strp Blk B, Fill	wild turkey	2	R	-	tmt portion (1 male/1 female)	-	-	-
Strp Blk B, Fill	wild turkey	1	R	shaft	ulna	-	-	-
Subtotal		*335*				*21*	*1*	*5*
Test Unit 1, Lv1	bird	10	-	-	-	-	-	-
Test Unit 1, Lv1	fish	1	-	-	-	-	-	-
Test Unit 1, Lv1	human	4	-	-	cranial	-	-	-
Test Unit 1, Lv1	large mammal	61	-	-	-	12	-	-
Test Unit 1, Lv1	small mammal	1	-	-	-	-	-	-
Test Unit 1, Lv1	turtle	15	-	-	-	1	-	-
Test Unit 1, Lv1	black bear	1	-	-	-	-	-	-
Test Unit 1, Lv1	cottontail rabbit	1	-	-	mandible fragment	-	-	-
Test Unit 1, Lv1	cottontail rabbit	1	L	prox	humerus	-	-	-
Test Unit 1, Lv1	white-tail deer	1	-	-	2nd 3/4	-	-	-
Test Unit 1, Lv1	white-tail deer	1	-	-	mt	-	-	-
Test Unit 1, Lv1	white-tail deer	1	-	-	dental	-	-	-
Test Unit 1, Lv1	white-tail deer	1	-	shaft	humerus	-	-	-
Test Unit 1, Lv1	opossum	1	-	-	thoracic vertebra	-	-	-
Subtotal		*100*				*13*	-	-
Test Unit 1, Lv2	bird	21	-	-	(one awl)	4	-	1
Test Unit 1, Lv2	human	1	-	-	cranial fragment	-	-	-
Test Unit 1, Lv2	large mammal	54	-	-	-	8	-	-
Test Unit 1, Lv2	turtle	15	-	-	-	-	-	-
Test Unit 1, Lv2	cottontail rabbit	1	-	shaft	tibia fragment	1	-	-
Test Unit 1, Lv2	white-tail deer	5	-	-	1st 3/4 fragment	1	-	-
Test Unit 1, Lv2	white-tail deer	1	-	-	mtp 2/5	-	-	-
Test Unit 1, Lv2	white-tail deer	1	-	-	scapula fragment	-	-	-
Test Unit 1, Lv2	white-tail deer	2	-	dist	humerus fragment	2	-	-
Test Unit 1, Lv2	white-tail deer	1	-	dist	mtp epiphysis	-	-	-
Test Unit 1, Lv2	white-tail deer	1	L	dist	humerus portion	-	-	-
Test Unit 1, Lv2	white-tail deer	1	R	post	radius shaft	-	-	-
Test Unit 1, Lv2	map/painted turtle	1	-	-	marginal bone	-	-	-
Test Unit 1, Lv2	rice rat	2	L	-	femur	-	-	-
Test Unit 1, Lv2	rice rat	1	L	-	tibia portion	-	-	-
Subtotal		*108*				*16*	-	*1*
Test Unit 2, Lv1	bird	9	-	-	-	2	-	-
Test Unit 2, Lv1	large mammal	56	-	-	-	19	-	-
Test Unit 2, Lv1	turtle	1	-	-	-	-	-	-
Test Unit 2, Lv1	box turtle	1	-	-	costal	-	-	-
Test Unit 2, Lv1	box turtle	1	-	-	plastron plate	-	-	-
Test Unit 2, Lv1	white-tail deer	1	-	-	2nd 3/4	-	-	-
Test Unit 2, Lv1	white-tail deer	2	-	-	dental	-	-	-
Test Unit 2, Lv1	white-tail deer	1	-	-	innominate fragment	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Test Unit 2, Lv1	white-tail deer	1	-	-	mtp fragment	-	-	-
Test Unit 2, Lv1	white-tail deer	1	-	-	radius fragment	-	-	-
Test Unit 2, Lv1	white-tail deer	1	-	shaft	rib	-	-	-
Test Unit 2, Lv1	white-tail deer	1	-	shaft	rib (polished)	-	-	1
Test Unit 2, Lv1	white-tail deer	1	-	shaft	tibia frag	-	-	-
Test Unit 2, Lv1	white-tail deer	2	-	shaft	tibia frag	-	-	-
Test Unit 2, Lv1	white-tail deer	1	-	-	vertebra fragment	-	-	-
Test Unit 2, Lv1	white-tail deer	1	-	-	thoracic spinous	1	-	-
Test Unit 2, Lv1	white-tail deer	1	L	-	scapula portion	-	-	-
Test Unit 2, Lv1	white-tail deer	1	L	shaft	humerus	-	-	-
Test Unit 2, Lv1	white-tail deer	1	L	prox	radius	-	-	-
Test Unit 2, Lv1	white-tail deer	1	R	ant	tibia shaft	-	-	-
Test Unit 2, Lv1	white-tail deer	1	R	dist	humerus	-	-	-
Test Unit 2, Lv1	white-tail deer	1	R	prox	mt	-	-	-
Test Unit 2, Lv1	white-tail deer	1	R	prox	ulna pres	-	-	-
Test Unit 2, Lv1	domestic dog	1	-	-	canine	-	-	-
Test Unit 2, Lv1	gray squirrel	1	R	-	ramus	-	-	-
Test Unit 2, Lv1	map turtle	1	-	-	costal bone portion	-	-	-
Test Unit 2, Lv1	wild turkey	1	-	-	cranial fragment	-	-	-
Test Unit 2, Lv1	wild turkey	1	-	shaft	tmt	-	-	-
Test Unit 2, Lv1	wild turkey	1	L	shaft	tbt fragment (polished)	-	-	1
Test Unit 2, Lv1	wild turkey	1	L	shaft	tmt	-	-	-
Subtotal		*95*				*22*	-	*2*
Test Unit 3, Lv1	bird	5	-	-	-	-	-	-
Test Unit 3, Lv1	human	1	-	-	max dm crown (child)	-	-	-
Test Unit 3, Lv1	large mammal	28	-	-	-	-	-	-
Test Unit 3, Lv1	small mammal	1	-	-	-	-	-	-
Test Unit 3, Lv1	turtle	5	-	-	-	1	-	-
Subtotal		*40*				*1*	-	-
BHT A	large mammal	1	-	-	-	-	-	-
BHT A	black bear	1	L	-	ramus portion	-	-	-
BHT A	white-tail deer	1	-	shaft	metapodial fragment	-	-	-
BHT A	white-tail deer	1	L	-	ramus portion	1	-	-
BHT A	white-tail deer	1	L	prox	radius	-	-	-
BHT A	white-tail deer	1	R	dist	humerus	-	-	-
BHT A	wild turkey	1	L	prox	ulna	-	-	-
Subtotal		*7*				*1*	-	-
BHT K	bird	13	-	-	-	1	-	-
BHT K	human	2	-	-	long bone fragments	-	-	-
BHT K	large mammal	122	-	-	-	24	-	-
BHT K	box turtle	5	-	-	carapace	-	-	-
BHT K	box turtle	4	-	-	marginal portions	-	-	-
BHT K	box turtle	10	-	-	plastron	9	-	-
BHT K	black bear?	1	-	-	canine portion	1	-	-
BHT K	canada goose	1	R	dist	humerus fragment	-	-	-
BHT K	white-tail deer	1	-	-	2nd phalanx, 3/4 absent	-	-	-
BHT K	white-tail deer	1	-	shaft	mc	-	-	-
BHT K	white-tail deer	1	-	shaft	mc fragment	-	-	-
BHT K	white-tail deer	1	-	-	alveolar fragment	-	-	-
BHT K	white-tail deer	2	-	-	dental	-	-	-
BHT K	white-tail deer	2	-	shaft	femur fragment	-	-	-
BHT K	white-tail deer	1	-	shaft	humerus	-	-	-
BHT K	white-tail deer	1	-	shaft	radius	-	-	-
BHT K	white-tail deer	4	-	-	rib	1	-	-
BHT K	white-tail deer	6	-	shaft	tibia fragment	-	-	-
BHT K	white-tail deer	4	-	-	vetebra fragment	1	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
BHT K	white-tail deer	1	-	dist	mtp condyle fragment	-	-	-
BHT K	white-tail deer	1	L	-	tc+4	-	-	-
BHT K	white-tail deer	1	L	-	mandibular m3	-	-	-
BHT K	white-tail deer	1	L	-	scapula fragment	-	-	-
BHT K	white-tail deer	2	L	dist	humerus	-	-	-
BHT K	white-tail deer	1	L	dist	tibia	-	-	-
BHT K	white-tail deer	1	R	-	tc+4	-	-	-
BHT K	white-tail deer	1	R	-	tf portion	-	1	-
BHT K	white-tail deer	2	R	-	tt	1	-	1
BHT K	white-tail deer	1	R	-	innominate portion	-	-	-
BHT K	white-tail deer	1	R	dist	epiphysis	-	-	-
BHT K	white-tail deer	2	R	dist	humerus	-	-	-
BHT K	white-tail deer	1	R	dist	radius	1	-	-
BHT K	white-tail deer	1	R	dist	tibia (healed fracture)	-	-	-
BHT K	white-tail deer	1	R	prox	radius	-	-	-
BHT K	white-tail deer	1	R	prox	ulna	-	-	-
BHT K	fox squirrel	1	R	prox	ulna	-	-	-
BHT K	map/painted turtle	1	-	-	marginal bone	-	-	-
BHT K	raccoon	1	R	-	ramus portion	1	-	-
BHT K	wild turkey	1	-	-	ulna portion	-	-	-
BHT K	wild turkey	1	L	-	humerus portion	1	-	-
Subtotal		*206*				*41*	*1*	*1*
Palisade Trench	domestic dog	1	L	-	ramus portion	-	-	-
Subtotal		*1*				-	-	-
Monument	large mammal	1	-	-		-	-	-
Monument	raccoon	1	L	prox	ulna	-	-	-
Subtotal		*2*				-	-	-
Feature 2	white-tail deer	1	-	shaft	femur fragment	-	-	-
Subtotal		*1*				-	-	-
Feature 3	bird	2	-	-	-	-	-	-
Feature 3	fish	4	-	-	miscelllaneous	-	-	-
Feature 3	fish	5	-	-	rib	-	-	-
Feature 3	fish	4	-	-	vertebra	-	-	-
Feature 3	large mammal	4	-	-	-	1	-	-
Feature 3	miscellaneous	11	-	-	-	-	-	-
Feature 3	small rodent	1	-	-	-	-	-	-
Feature 3	turtle	3	-	-	-	-	-	-
Feature 3	catfish	1	-	-	spine	-	-	-
Feature 3	moxostoma	1	-	-	cleithrum	-	-	-
Feature 3	snake sp	1	-	-	rib	-	-	-
Feature 3	viperid	4	-	-	vertebra	-	-	-
Subtotal		*41*				*1*	-	-
Feature 8	wild turkey	1	L	shaft	humerus (male)	1	-	-
Subtotal		*1*				*1*	-	-
Feature 12	large mammal	1	-	-	-	1	-	-
Feature 12	turtle	1	-	-	-	1	-	-
Feature 12	white-tail deer	1	-	-	lumbar vertebra	1	-	-
Subtotal		*3*				*3*	-	-
Feature 13	human	1	-	-	mtp	-	-	-
Feature 13	human	2	-	-	pes phalanges	-	-	-
Subtotal		*3*				-	-	-
Feature 14	bird	16	-	-	(bead fragment)	1	-	1
Feature 14	fish	2	-	-	-	-	-	-
Feature 14	large mammal	55	-	-	-	15	-	-
Feature 14	miscellaneous	1	-	-	-	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 14	small mammal	4	-	-	-	1	-	-
Feature 14	turtle	16	-	-	-	5	-	-
Feature 14	box turtle	1	-	-	nuchal bone	-	-	-
Feature 14	cottontail rabbit	1	-	-	cranial	-	-	-
Feature 14	cottontail rabbit	1	-	-	atlas vertebra	-	-	-
Feature 14	cottontail rabbit	1	R	-	ramus	-	-	-
Feature 14	channel catfish	1	-	-	pectoral portion (5 lbs)	-	-	-
Feature 14	white-tail deer	1	-	-	1st 2/5	-	-	-
Feature 14	white-tail deer	5	-	-	dental	-	-	-
Feature 14	white-tail deer	1	-	shaft	femur fragment	-	-	-
Feature 14	white-tail deer	1	-	-	rib portion	-	-	-
Feature 14	white-tail deer	1	L	dist	humerus portion	-	-	-
Feature 14	fox squirrel	1	L	dist	tibia	-	-	-
Feature 14	fox squirrel	1	L	prox	ulna	-	-	-
Feature 14	gray squirrel	1	-	-	clavicle	-	-	-
Feature 14	gray squirrel	1	R	-	ramus portion	-	-	-
Feature 14	passenger pigeon	1	L	-	coracoid portion	-	-	-
Feature 14	quail	1	R	-	femur	-	-	-
Feature 14	raccoon	1	R	-	mandibular m1	-	-	-
Feature 14	wild turkey	2	-	-	vertebra	-	-	-
Feature 14	wild turkey	1	R	shaft	tbt portion	-	-	-
Subtotal		*118*				*22*	*0*	*1*
Feature 15	bird	10	-	-	-	-	-	-
Feature 15	fish	1	-	-	-	-	-	-
Feature 15	small rodent	1	-	-	-	-	-	-
Feature 15	box turtle	1	-	-	carapace portion	-	-	-
Feature 15	box turtle	1	-	-	marginal portion1	1	-	-
Feature 15	box turtle	1	-	-	plastron portion	-	-	-
Feature 15	cottontail rabbit	1	-	-	-	-	-	-
Feature 15	cottontail rabbit	1	-	-	mtp	-	-	-
Feature 15	white-tail deer	1	L	-	tt	-	-	-
Feature 15	frog/toad	1	-	-	innominate portion	-	-	-
Feature 15	muskrat	1	R	prox	femur	-	-	-
Feature 15	opossum	1	L	prox	ulna	-	-	-
Feature 15	passenger pigeon	1	L	-	ulna portion	-	-	-
Feature 15	passenger pigeon	1	L	dist	humerus	-	-	-
Feature 15	raccoon	1	L	-	radius portion	-	-	-
Feature 15	raccoon	1	L	dist	humerus	-	-	-
Feature 15	wild turkey	1	-	shaft	tmt fragment	-	-	-
Feature 15	wild turkey	1	R	shaft	femur (male)	-	-	-
Feature 15	wild turkey	1	R	prox	tmt (male)	-	-	-
Subtotal		*28*				*1*	-	-
Feature 16	bird	4	-	-	-	-	-	-
Feature 16	human	1	-	-	pes phalanx	-	-	-
Feature 16	large mammal	5	-	-	-	4	-	-
Feature 16	box turtle	1	-	-	marginal bone	-	-	-
Feature 16	cottontail rabbit	1	-	shaft	tibia fragment	1	-	-
Feature 16	colubrid	1	-	-	vertebra	-	-	-
Subtotal		*13*				*5*	-	-
Feature 18	colubrid	1	-	-	vertebra	-	-	-
Subtotal		*1*				-	-	-
Feature 20	bird	90	-	-	-	60	-	1
Feature 20	fish	142	-	-	(48 vertebra, 60 rib)	1	-	-
Feature 20	human	4	-	-	cranial frags	-	-	-
Feature 20	human	1	-	-	miscellaneous	-	-	-
Feature 20	large mammal	360	-	-	-	251	-	-
Feature 20	large mammal	1	-	-	(bone pin)	1	-	1

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 20	miscellaneous	412	-	-	-	-	-	-
Feature 20	miscellaneous	1	-	-	(bone pin fragment)	1	-	1
Feature 20	miscellaneous	1	-	-	antler/bone? (pin fragment)	-	-	1
Feature 20	small mammal	22	-	-	-	2	-	-
Feature 20	small rodent	6	-	-	-	-	-	-
Feature 20	turtle	36	-	-	-	7	-	-
Feature 20	box turtle	1	-	-	carapace fragment	1	-	-
Feature 20	box turtle	1	-	-	dentary	-	-	-
Feature 20	box turtle	3	-	-	femur fragments	-	-	-
Feature 20	box turtle	1	-	-	innominate portion	-	-	-
Feature 20	box turtle	9	-	-	miscellaneous long bones	-	-	-
Feature 20	box turtle	83	-	-	pieces (from 7 individuals)	-	-	-
Feature 20	box turtle	2	-	-	plastron (fragmented)	-	-	-
Feature 20	box turtle	14	-	-	plastron portion	-	-	-
Feature 20	box turtle	3	-	-	precoracoid	-	-	-
Feature 20	box turtle	6	-	-	scapula	-	-	-
Feature 20	box turtle	1	L	-	humerus	-	-	-
Feature 20	box turtle	1	R	-	humerus	-	-	-
Feature 20	black bear	1	-	-	mc IV	-	-	-
Feature 20	bowfin	1	-	-	vertebra body	-	-	-
Feature 20	canada goose	1	L	-	scapula	-	-	-
Feature 20	cottontail rabbit	1	L	-	scapula	-	-	-
Feature 20	cottontail rabbit	1	R	-	tf	-	-	-
Feature 20	cottontail rabbit	1	R	-	ulna portion	-	-	-
Feature 20	channel catfish	1	-	-	dentary fragment	-	-	-
Feature 20	channel catfish	2	-	-	pectoral spines (1/4 lbs, 2 lbs)	-	-	-
Feature 20	channel catfish	1	L	-	articular (ca. 6 lbs)	-	-	-
Feature 20	channel catfish	1	L	-	dentary (5 lbs)	-	-	-
Feature 20	colubrid	10	-	-	vertebra	-	-	-
Feature 20	white-tail deer	1	-	-	3rd 2/5	1	-	-
Feature 20	white-tail deer	1	-	shaft	mt	-	-	-
Feature 20	white-tail deer	1	-	-	atlas vertebra fragment	-	-	-
Feature 20	white-tail deer	1	-	-	thoracic vertebra process	-	-	-
Feature 20	white-tail deer	5	-	-	dental	-	-	-
Feature 20	white-tail deer	2	-	shaft	femur fragments	-	-	-
Feature 20	white-tail deer	1	-	shaft	humerus portion	-	-	-
Feature 20	white-tail deer	2	-	-	innominate fragments	-	-	-
Feature 20	white-tail deer	1	-	-	mand I	-	-	-
Feature 20	white-tail deer	1	-	-	patella	-	-	-
Feature 20	white-tail deer	1	-	-	pubic portion	-	-	-
Feature 20	white-tail deer	6	-	shaft	radius portions	1	-	-
Feature 20	white-tail deer	4	-	-	rib fragments	-	-	-
Feature 20	white-tail deer	20	-	-	rib portions	1	-	-
Feature 20	white-tail deer	1	-	-	sacral portion	-	-	-
Feature 20	white-tail deer	2	-	-	scapula blade portions	1	-	-
Feature 20	white-tail deer	1	-	-	scapula fragment	1	-	-
Feature 20	white-tail deer	1	-	-	sesamoid	-	-	-
Feature 20	white-tail deer	3	-	-	sternal bone	-	-	-
Feature 20	white-tail deer	5	-	shaft	ulna fragments	2	-	-
Feature 20	white-tail deer	3	-	-	vertebra fragments	-	-	-
Feature 20	white-tail deer	1	-	dist	tibia fragment ab	-	-	-
Feature 20	white-tail deer	2	-	dist	ulna	-	-	-
Feature 20	white-tail deer	3	L	-	tt	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 20	white-tail deer	1	L	-	ascending ramus	-	-	-
Feature 20	white-tail deer	1	L	shaft	femur	-	-	-
Feature 20	white-tail deer	2	L	-	innominate portion	-	-	-
Feature 20	white-tail deer	2	L	-	scapula portion	-	-	-
Feature 20	white-tail deer	1	L	shaft	tibia	1	-	-
Feature 20	white-tail deer	1	L	dist	femur ab	-	-	-
Feature 20	white-tail deer	2	L	dist	humerus	-	-	-
Feature 20	white-tail deer	4	L	dist	radius	-	-	-
Feature 20	white-tail deer	1	L	dist	tibia	-	-	-
Feature 20	white-tail deer	2	L	dist	tibia epiphysis fragment	-	-	-
Feature 20	white-tail deer	1	L	shaft	tibia	-	-	-
Feature 20	white-tail deer	1	L	prox	humerus	-	-	-
Feature 20	white-tail deer	3	L	prox	radius	-	-	-
Feature 20	white-tail deer	3	L	prox	ulna	-	-	-
Feature 20	white-tail deer	2	R	-	innominate portion	-	-	-
Feature 20	white-tail deer	1	R	-	pubic bone	-	-	-
Feature 20	white-tail deer	1	R	-	scapula portion	-	-	-
Feature 20	white-tail deer	1	R	dist	femur	-	-	-
Feature 20	white-tail deer	2	R	dist	humerus	-	-	-
Feature 20	white-tail deer	1	R	dist	radius	-	-	-
Feature 20	white-tail deer	1	R	dist	tibia	-	-	-
Feature 20	white-tail deer	1	R	shaft	tibia	-	-	-
Feature 20	white-tail deer	1	R	prox	radius	-	-	-
Feature 20	white-tail deer	1	R	prox	tibia epiphysis	-	-	-
Feature 20	white-tail deer	3	R	prox	ulna (one awl, one ab)	-	-	1
Feature 20	domestic dog	1	-	-	canine	-	-	-
Feature 20	domestic dog	1	L	-	mand c	-	-	-
Feature 20	freshwater drum	1	-	-	dorsal spine	-	-	-
Feature 20	freshwater drum	1	-	-	pectoral spine	-	-	-
Feature 20	freshwater drum	18	-	-	teeth	6	-	-
Feature 20	freshwater drum	1	L	-	upper pharyngeal (3 lbs)	-	-	-
Feature 20	freshwater drum	1	R	-	premax	-	-	-
Feature 20	freshwater drum	1	R	-	upper pharyngeal	-	-	-
Feature 20	fox squirrel	1	-	-	frontal portion	-	-	-
Feature 20	fox squirrel	1	-	-	sacrum	-	-	-
Feature 20	fox squirrel	1	L	-	tf	-	-	-
Feature 20	fox squirrel	1	L	-	femur	-	-	-
Feature 20	fox squirrel	1	L	-	humerus	-	-	-
Feature 20	fox squirrel	1	L	-	innominate	-	-	-
Feature 20	fox squirrel	1	L	-	maxilla	-	-	-
Feature 20	fox squirrel	4	L	-	radius	-	-	-
Feature 20	fox squirrel	1	L	shaft	tibia	-	-	-
Feature 20	fox squirrel	1	L	prox	femur	-	-	-
Feature 20	fox squirrel	1	L	prox	ulna	-	-	-
Feature 20	fox squirrel	1	R	-	innominate portion	-	-	-
Feature 20	fox squirrel	1	R	-	max I	-	-	-
Feature 20	fox squirrel	1	R	-	max portion	-	-	-
Feature 20	fox squirrel	1	R	-	tibia portion	-	-	-
Feature 20	fox squirrel	1	R	dist	radius	-	-	-
Feature 20	fox squirrel	2	R	prox	ulna	-	-	-
Feature 20	fox	1	-	-	premolar fragment	-	-	-
Feature 20	gray squirrel	1	-	-	cranial fragment	-	-	-
Feature 20	gray squirrel	1	R	-	radius	-	-	-
Feature 20	gray squirrel	1	R	-	radius portion	1	-	-
Feature 20	map/painted turtle	2	-	-	marginal	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 20	minnow	1	-	-	pharyngeal fragment	-	-	-
Feature 20	opossum	1	-	-	axis vertebra	-	-	-
Feature 20	opossum	1	-	-	cranial portion	-	-	-
Feature 20	opossum	1	-	-	lumbar vertebra	-	-	-
Feature 20	opossum	1	-	-	thoracic vertebra	-	-	-
Feature 20	opossum	1	L	-	scapula	1	-	-
Feature 20	opossum	1	L	prox	ulna	-	-	-
Feature 20	passerine	1	-	-	dentary fragment	-	-	-
Feature 20	quail	2	-	-	sternum portions	-	-	-
Feature 20	rice rat	1	-	-	cranial portion	-	-	-
Feature 20	rice rat	1	L	-	humerus portion	-	-	-
Feature 20	rice rat	2	L	-	ramus	-	-	-
Feature 20	rice rat	1	L	-	tibia	-	-	-
Feature 20	rice rat	1	R	-	ramus	-	-	-
Feature 20	raccoon	1	L	-	max c (slight scoring apex)	-	-	1
Feature 20	raccoon	1	R	-	radius	-	-	-
Feature 20	squirrel	1	-	-	fibula fragment	-	-	-
Feature 20	squirrel	1	-	-	scapula fragment	-	-	-
Feature 20	squirrel	1	R	-	dentary	-	-	-
Feature 20	wild turkey	2	-	-	cmc	-	-	-
Feature 20	wild turkey	1	-	-	cranial portion	-	-	-
Feature 20	wild turkey	1	-	-	dentary portion	-	-	-
Feature 20	wild turkey	5	-	-	pes phalanges	-	-	-
Feature 20	wild turkey	6	-	-	pes phalanx	-	-	-
Feature 20	wild turkey	1	-	-	sternum fragment	-	-	-
Feature 20	wild turkey	1	-	shaft	tmt fragment	-	-	-
Feature 20	wild turkey	1	-	-	vertebra fragment	-	-	-
Feature 20	wild turkey	1	-	-	wing phalanx fragment	1	-	-
Feature 20	wild turkey	1	L	-	radius	-	-	-
Feature 20	wild turkey	2	L	-	tbt portion	-	-	-
Feature 20	wild turkey	1	L	-	tmt (awl)	-	-	1
Feature 20	wild turkey	1	L	-	tmt (male?)	-	-	-
Feature 20	wild turkey	1	L	-	ulna	-	-	-
Feature 20	wild turkey	1	L	prox	tbt (score and snap)	-	-	1
Feature 20	wild turkey	1	R	shaft	femur	-	-	-
Feature 20	wild turkey	2	R	shaft	humerus	1	-	-
Feature 20	wild turkey	1	R	shaft	humerus frag	-	-	-
Feature 20	wild turkey	1	R	-	ulna portion (immature)	-	-	-
Feature 20	wild turkey	1	R	shaft	tbt	1	-	-
Feature 20	wild turkey	1	R	-	tmt (female)	-	-	-
Feature 20	wild turkey	1	R	-	ulna (female)	-	-	-
Feature 20	wild turkey	1	R	dist	tbt	-	-	-
Feature 20	wild turkey	1	R	dist	tmt	-	-	-
Feature 20	wild turkey	1	R	prox	tmt	-	-	-
Feature 20	wapiti	1	-	-	antler fragments	1	-	1
Feature 20	wapiti	1	-	-	rib epiphysis	-	-	-
Feature 20	wapiti	1	L	prox	radius	-	-	-
Subtotal		*1444*				*345*	-	*9*
Feature 21	white-tail deer	1	-	shaft	radius	-	-	-
Subtotal		*1*				-	-	-
Feature 27	white-tail deer	1	-	-	rib fragment	-	-	-
Feature 27	white-tail deer	1	-	-	thoracic spinous	-	-	-
Subtotal		*2*				-	-	-
Feature 28	fish	1	-	-	-	-	-	-
Feature 28	gray squirrel	1	R	dist	radius	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Subtotal		*2*				-	-	-
Feature 29	bird	2	-	-	-	-	-	-
Subtotal		*2*				-	-	-
Feature 36	bird	766	-	-	-	17	-	-
Feature 36	fish	68	-	-	-	6	-	-
Feature 36	human	1	-	-	cranial fragment	-	-	-
Feature 36	human	1	-	-	dm fragment	-	-	-
Feature 36	large mammal	551	-	-	-	185	-	-
Feature 36	miscellaneous	364	-	-	-	-	-	-
Feature 36	miscellaneous	1	-	-	antler/bone? (pin)	-	-	-
Feature 36	small mammal	25	-	-	-	-	-	-
Feature 36	small rodent	43	-	-	-	-	-	-
Feature 36	turtle	15	-	-	-	-	-	-
Feature 36	box turtle	1	-	-	carapace/plastron	-	-	-
Feature 36	box turtle	2	-	-	coracoid	-	-	-
Feature 36	box turtle	2	-	-	costal fragment	-	-	-
Feature 36	box turtle	4	-	-	fragmented carapace	1	-	-
Feature 36	box turtle	1	-	-	humerus	-	-	-
Feature 36	box turtle	2	-	-	marginal portion	-	-	-
Feature 36	box turtle	21	-	-	miscellaneous fragments	-	-	-
Feature 36	box turtle	6	-	-	plastron fragment	-	-	-
Feature 36	box turtle	3	L	-	humerus	-	-	-
Feature 36	black bear	1	L	dist	humerus	-	-	-
Feature 36	beaver	1	R	-	innominate portion	-	-	-
Feature 36	beaver	1	R	-	mand I (polished)	-	1	1
Feature 36	beaver	1	R	-	tibia portion	-	-	-
Feature 36	canada goose	1	-	-	dentary portion	-	-	-
Feature 36	cottontail rabbit	1	-	-	rib portion	-	-	-
Feature 36	cottontail rabbit	1	L	dist	tibia	-	-	-
Feature 36	cottontail rabbit	1	L	prox	ulna	-	-	-
Feature 36	colubrid	8	-	-	vertebra	-	-	-
Feature 36	white-tail deer	1	-	-	1st 2/5	-	-	-
Feature 36	white-tail deer	1	-	-	1st 3/4	-	-	-
Feature 36	white-tail deer	1	-	-	mc shaft	-	-	-
Feature 36	white-tail deer	1	-	-	atlas portion	-	-	-
Feature 36	white-tail deer	1	-	-	bulla ossea	-	-	-
Feature 36	white-tail deer	5	-	-	dental	-	-	-
Feature 36	white-tail deer	2	-	shaft	femur fragment	-	-	-
Feature 36	white-tail deer	2	-	shaft	humerus fragment	-	-	-
Feature 36	white-tail deer	2	-	-	innominate fragment	-	-	-
Feature 36	white-tail deer	1	-	-	lumbar portion	-	-	-
Feature 36	white-tail deer	2	-	-	lumbar vertebra	-	-	-
Feature 36	white-tail deer	3	-	-	mtp	-	-	-
Feature 36	white-tail deer	1	-	shaft	mtp 2/5	-	-	-
Feature 36	white-tail deer	2	-	-	mtp condyle	1	-	-
Feature 36	white-tail deer	1	-	-	patella	-	-	-
Feature 36	white-tail deer	2	-	-	ramus fragment	-	-	-
Feature 36	white-tail deer	17	-	-	rib	1	-	-
Feature 36	white-tail deer	13	-	-	rib fragment	2	-	-
Feature 36	white-tail deer	3	-	-	rib shaft	-	-	-
Feature 36	white-tail deer	3	-	-	scapula fragment	2	-	-
Feature 36	white-tail deer	1	-	-	sesamoid	1	-	-
Feature 36	white-tail deer	1	-	-	sternal bone	-	-	-
Feature 36	white-tail deer	1	-	-	thoracic spinous	1	-	-
Feature 36	white-tail deer	1	-	-	thoracic vertebra	-	-	-
Feature 36	white-tail deer	2	-	shaft	ulna	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 36	white-tail deer	8	-	-	vertebra fragment	2	-	-
Feature 36	white-tail deer	1	-	dist	ulna epiphysis	-	-	-
Feature 36	white-tail deer	1	-	dist	ulna portion	-	-	-
Feature 36	white-tail deer	1	L	-	tt	-	-	-
Feature 36	white-tail deer	1	L	shaft	femur	-	-	-
Feature 36	white-tail deer	2	L	shaft	humerus	-	-	-
Feature 36	white-tail deer	2	L	-	ilium	-	-	-
Feature 36	white-tail deer	1	L	-	post shaft	-	-	-
Feature 36	white-tail deer	1	L	shaft	radius	-	-	-
Feature 36	white-tail deer	1	L	-	ramus portion (with p2p3p4)	-	-	-
Feature 36	white-tail deer	1	L	-	scapula	-	-	-
Feature 36	white-tail deer	1	L	-	scapula portion	-	-	-
Feature 36	white-tail deer	1	L	shaft	tibia	-	-	-
Feature 36	white-tail deer	1	L	prox	ulna ab	-	-	-
Feature 36	white-tail deer	5	L	ant	tibia	-	-	-
Feature 36	white-tail deer	5	L	dist	humerus	-	-	-
Feature 36	white-tail deer	1	L	dist	humerus portion	-	-	-
Feature 36	white-tail deer	3	L	dist	radius	1	-	-
Feature 36	white-tail deer	4	L	dist	tibia	-	2	-
Feature 36	white-tail deer	1	L	post	radius shaft	-	-	-
Feature 36	white-tail deer	1	L	prox	mt	-	-	-
Feature 36	white-tail deer	5	L	prox	radius	2	-	-
Feature 36	white-tail deer	1	L	prox	tibia	-	-	-
Feature 36	white-tail deer	3	L	prox	ulna	-	-	-
Feature 36	white-tail deer	1	R	-	tt	-	-	-
Feature 36	white-tail deer	2	R	-	ascending ramus	-	-	-
Feature 36	white-tail deer	2	R	shaft	humerus	-	-	-
Feature 36	white-tail deer	1	R	-	ilium portion	-	-	-
Feature 36	white-tail deer	1	R	-	premax	-	-	-
Feature 36	white-tail deer	2	R	shaft	radius	-	-	-
Feature 36	white-tail deer	4	R	-	scapula	1	-	-
Feature 36	white-tail deer	2	R	-	scapula portion	1	-	-
Feature 36	white-tail deer	5	R	dist	humerus	-	-	-
Feature 36	white-tail deer	4	R	dist	tibia	-	-	-
Feature 36	white-tail deer	1	R	prox	mt	-	-	-
Feature 36	white-tail deer	2	R	prox	radius	-	-	-
Feature 36	white-tail deer	1	R	prox	tibia	1	-	-
Feature 36	white-tail deer	2	R	prox	ulna	-	-	-
Feature 36	domestic dog	1	-	-	mtp	-	-	-
Feature 36	freshwater drum	12	-	-	teeth	-	-	-
Feature 36	freshwater drum	1	R	-	low pharyngeal arch (6 lbs)	-	-	-
Feature 36	freshwater drum	1	R	-	upper pharyngeal	-	-	-
Feature 36	fox squirrel	2	-	-	clavicle	-	-	-
Feature 36	fox squirrel	2	-	-	fibula	-	-	-
Feature 36	fox squirrel	1	-	-	parietal bone	-	-	-
Feature 36	fox squirrel	1	L	-	tt	1	-	-
Feature 36	fox squirrel	1	L	-	ilium portion	-	-	-
Feature 36	fox squirrel	1	L	-	mand I	-	-	-
Feature 36	fox squirrel	2	-	-	maxilla	-	-	-
Feature 36	fox squirrel	1	-	-	premax	-	-	-
Feature 36	fox squirrel	1	-	-	radius	-	-	-
Feature 36	fox squirrel	1	L	-	scapula	-	-	-
Feature 36	fox squirrel	2	L	-	ulna portion	-	-	-
Feature 36	fox squirrel	1	L	dist	humerus	-	-	-
Feature 36	fox squirrel	2	L	dist	tibia	-	-	-
Feature 36	fox squirrel	1	L	prox	femur	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 36	fox squirrel	1	R	-	tt	1	-	-
Feature 36	fox squirrel	1	R	-	mand I	-	-	-
Feature 36	fox squirrel	2	R	-	max I	-	-	-
Feature 36	fox squirrel	1	R	-	maxilla portion	-	-	-
Feature 36	fox squirrel	2	R	-	radius	-	-	-
Feature 36	fox squirrel	1	R	-	ramus portion	-	-	-
Feature 36	fox squirrel	2	R	-	scapula	-	-	-
Feature 36	fox squirrel	1	R	-	tibia portion	-	-	-
Feature 36	fox squirrel	2	R	-	ulna portion	-	-	-
Feature 36	fox squirrel	1	R	dist	tibia	-	-	-
Feature 36	fox squirrel	1	R	prox	ulna	-	-	-
Feature 36	frog/toad	2	-	-	long bone fragments	1	-	-
Feature 36	frog/toad	1	-	shaft	long bone	-	-	-
Feature 36	frog/toad	1	L	-	innominate portion	-	-	-
Feature 36	gray fox	1	L	shaft	tibia ab	-	-	-
Feature 36	gray squirrel	2	-	-	atlas vertebra	-	-	-
Feature 36	gray squirrel	1	-	-	axis fragment	-	-	-
Feature 36	gray squirrel	2	L	-	tt	1	-	-
Feature 36	gray squirrel	1	L	shaft	femur	1	-	-
Feature 36	gray squirrel	1	L	-	frontall	-	-	-
Feature 36	gray squirrel	3	L	-	humerus portion	-	-	-
Feature 36	gray squirrel	1	L	-	ramus	-	-	-
Feature 36	gray squirrel	1	L	-	ramus	-	-	-
Feature 36	gray squirrel	1	L	dist	tibia	-	-	-
Feature 36	gray squirrel	1	L	prox	femur	-	-	-
Feature 36	gray squirrel	3	L	prox	radius	-	-	-
Feature 36	gray squirrel	1	L	prox	ulna	-	-	-
Feature 36	gray squirrel	1	R	-	tf	-	-	-
Feature 36	gray squirrel	1	R	-	tt	-	-	-
Feature 36	gray squirrel	1	R	-	frontal	-	-	-
Feature 36	gray squirrel	1	R	-	humerus	-	-	-
Feature 36	gray squirrel	1	R	-	humerus portion	-	-	-
Feature 36	gray squirrel	1	R	-	innominate	-	-	-
Feature 36	gray squirrel	2	R	-	innominate portion	-	-	-
Feature 36	gray squirrel	1	R	-	mand I	-	-	-
Feature 36	gray squirrel	1	R	-	max I	-	-	-
Feature 36	gray squirrel	1	R	-	max I fragment	-	-	-
Feature 36	gray squirrel	1	R	-	ramus	-	-	-
Feature 36	gray squirrel	1	R	-	scapula portion	-	-	-
Feature 36	gray squirrel	1	R	shaft	tibia	-	-	-
Feature 36	gray squirrel	1	R	-	ulna portion	-	-	-
Feature 36	gray squirrel	1	R	dist	humerus	-	-	-
Feature 36	mallard	1	R	-	coracoid portion	-	-	-
Feature 36	minnow	1	-	-	pharyngeal tooth	-	-	-
Feature 36	opossum	1	-	-	cervical vertebra	-	-	-
Feature 36	opossum	1	-	-	lumbar vertebra	-	-	-
Feature 36	opossum	1	L	-	ramus portion	-	-	-
Feature 36	opossum	1	L	shaft	tibia	-	-	-
Feature 36	opossum	1	R	-	innominate portion	-	-	-
Feature 36	quail	1	R	dist	tbt	-	-	-
Feature 36	rice rat	1	-	-	cranial portion	-	-	-
Feature 36	rice rat	1	L	-	femur	-	-	-
Feature 36	rice rat	1	L	-	humerus	-	-	-
Feature 36	rice rat	2	L	-	innominate	-	-	-
Feature 36	rice rat	1	L	-	ramus portion	-	-	-
Feature 36	rice rat	1	L	-	tibia	-	-	-
Feature 36	rice rat	1	R	-	femur	-	-	-
Feature 36	rice rat	3	R	-	innominate	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 36	rice rat	1	R	-	innominate portion	-	-	-
Feature 36	rice rat	1	R	-	ramus portion	-	-	-
Feature 36	raccoon	1	-	-	mandibular molar	-	-	-
Feature 36	raccoon	1	L	-	ulna	-	-	-
Feature 36	striped skunk	1	L	-	mand m1	-	-	-
Feature 36	softshell turtle	1	-	-	costal	1	-	-
Feature 36	softshell turtle	1	-	-	phalanx	-	-	-
Feature 36	softshell turtle	2	-	-	plastron/carapace frag (female)	-	-	-
Feature 36	snake	1	-	-	rib fragment	1	-	-
Feature 36	snapping turtle	1	-	-	costal portion	-	-	-
Feature 36	squirrel	1	-	-	cranial fragment	-	-	-
Feature 36	wild turkey	1	-	-	cunieform	-	-	-
Feature 36	wild turkey	2	-	shaft	humerus fragment	-	-	-
Feature 36	wild turkey	1	-	-	mt	-	-	-
Feature 36	wild turkey	1	-	shaft	radius	-	-	-
Feature 36	wild turkey	1	-	shaft	radius	-	-	-
Feature 36	wild turkey	1	-	-	sternum portion	-	-	-
Feature 36	wild turkey	1	-	shaft	ulna fragment	-	-	-
Feature 36	wild turkey	2	-	-	vertebra	-	-	-
Feature 36	wild turkey	1	L	-	humerus (male)	-	-	-
Feature 36	wild turkey	3	L	-	humerus portion	-	-	-
Feature 36	wild turkey	1	L	shaft	humerus	-	-	-
Feature 36	wild turkey	1	L	-	scapula	-	-	-
Feature 36	wild turkey	1	L	-	scapula blade	-	-	-
Feature 36	wild turkey	1	L	-	tmt (female)	-	-	-
Feature 36	wild turkey	1	L	-	ulna portion	-	-	-
Feature 36	wild turkey	1	L	dist	tmt	-	-	-
Feature 36	wild turkey	1	L	prox	tbt	-	-	-
Feature 36	wild turkey	2	R	-	coracoid (male)	-	-	-
Feature 36	wild turkey	1	R	-	humerus (female)	-	-	-
Feature 36	wild turkey	1	R	-	humerus portion	-	-	-
Feature 36	wild turkey	1	R	shaft	humerus	-	-	-
Feature 36	wild turkey	1	R	-	radius portion	-	-	-
Feature 36	wild turkey	2	R	-	scapula	1	-	-
Feature 36	wild turkey	2	R	-	ulna portion	-	-	-
Feature 36	wild turkey	1	R	dist	femur	-	-	-
Feature 36	wild turkey	1	R	prox	tmt	-	-	-
Feature 36	viperid	3	-	-	vertebra	-	-	-
Feature 36	wapiti	1	-	-	rib shaft	-	-	-
Feature 36	wapiti	1	L	-	innominate portion	-	1	-
Feature 36	wolf	1	L	-	maxilla	-	-	-
Subtotal		*2203*				*233*	*5*	*2*
Feature 41	large mammal	1	-	-	-	-	-	-
Subtotal		*1*				-	-	-
Feature 42	white-tail deer	1	R	shaft	femur fragment	-	-	-
Subtotal		*1*				-	-	-
Feature 45	bird	1	-	-	-	-	-	-
Feature 45	fish	1	-	-	-	-	-	-
Feature 45	large mammal	4	-	-	-	1	-	-
Subtotal		*6*				*1*	-	-
Feature 46	white-tail deer	1	-	-	rib	-	-	-
Subtotal		*1*				-	-	-
Feature 50	bird	1	-	-	-	1	-	-
Subtotal		*1*				*1*	-	-
Feature 51	bird	3	-	-	-	-	-	-
Feature 51	large mammal	1	-	-	-	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 51	box turtle	1	-	-	carapace fragment	-	-	-
Feature 51	wild turkey	1	R	-	humerus (female)	-	-	-
Subtotal		*6*				-	-	-
Feature 52	box turtle	1	-	-	carapace crushed	-	-	-
Feature 52	softshell turtle	1	-	-	carapace fragment	-	-	-
Subtotal		*2*				-	-	-
Feature 57	white-tail deer	1	-	-	thoracic vertebra	-	-	-
Feature 57	large mammal	1	-	-	-	-	-	-
Subtotal		*2*				-	-	-
Feature 59	fish	1	-	-	-	-	-	-
Subtotal		*1*				-	-	-
Feature 61	fish	1	-	-	-	-	-	-
Feature 61	gray squirrel	1	R	-	radius	-	-	-
Subtotal		*2*				-	-	-
Feature 62	bird	3	-	-	-	-	-	-
Feature 62	human	1	-	shaft	long bone fragment (fetal/nb)	-	-	-
Feature 62	large mammal	3	-	-	-	-	-	-
Feature 62	turtle	2	-	-	-	-	-	-
Feature 62	white-tail deer	1	-	-	mt portion	-	-	-
Feature 62	rice rat	1	L	-	femur	-	-	-
Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 62	wild turkey	1	R	shaft	humerus	-	-	-
Subtotal		*12*				-	-	-
Feature 64	bird	2	-	-	-	1	-	-
Feature 64	white-tail deer	1	-	shaft	rib	-	-	-
Feature 64	frog/toad	1	-	-	long bone fragment	-	-	-
Subtotal		*4*				*1*	-	-
Feature 66	human	1	-	-	maxillary molar	-	-	-
Feature 66	turtle	2	-	-	-	-	-	-
Subtotal		*3*				-	-	-
Feature 68	small mammal	1	-	-	mtp	-	-	-
Subtotal		*1*				-	-	-
Feature 69	large mammal	1	-	-	-	-	-	-
Feature 69	wild turkey	1	-	-	ossified tendon	-	-	-
Subtotal		*2*				-	-	-
Feature 70	large mammal	1	-	-	-	-	-	-
Feature 70	box turtle	1	-	-	carapace fragment (polished)	-	-	1
Feature 70	box turtle	1	-	-	carapace portion	-	-	-
Feature 70	box turtle	1	-	-	plastron fragment	1	-	-
Feature 70	black bear?	1	-	shaft	rib	-	-	-
Feature 70	white-tail deer	1	-	-	pelvic fragment	-	-	-
Feature 70	white-tail deer	1	L	-	tt	-	-	-
Subtotal		*7*				*1*	-	*1*
Feature 76	turtle	2	-	-	-	-	-	-
Subtotal		*2*				-	-	-
Feature 82	turtle	2	-	-	-	-	-	-
Subtotal		*2*				-	-	-
Feature 83	bird	5	-	-	-	-	-	-
Feature 83	large mammal	12	-	-	-	2	-	-
Feature 83	small mammal	1	-	-	-	-	-	-
Feature 83	turtle	5	-	-	-	-	-	-
Feature 83	box turtle	1	-	-	carapace fragment	-	-	-
Feature 83	white-tail deer	1	-	-	antler portion	-	-	-
Feature 83	white-tail deer	1	R	dist	tibia	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 83	freshwater drum	1	-	-	supraoccipital portion	-	-	-
Feature 83	wapiti	1	-	dist	mtp epiphysis 3/4	-	-	-
Subtotal		*28*				*2*	-	-
Feature 84	wild turkey	1	R	-	cmc fragment	-	-	-
Subtotal		*1*				-	-	-
Feature 88	bird	1	-	-	-	-	-	-
Feature 88	large mammal	3	-	-	-	-	1	-
Feature 88	turtle	1	-	-	-	-	-	-
Feature 88	white-tail deer	1	-	shaft	rib	-	-	-
Feature 88	white-tail deer	1	L	shaft	tibia ant	-	-	-
Subtotal		*7*				-	*1*	-
Feature 89	bird	11	-	-	-	2	-	-
Feature 89	large mammal	7	-	-	-	1	-	-
Feature 89	small mammal	1	-	-	-	-	-	-
Feature 89	turtle	19	-	-	-	3	-	-
Feature 89	black bear	1	-	-	mand c port	-	-	-
Feature 89	white-tail deer	1	-	-	dental fragment	-	-	-
Feature 89	white-tail deer	1	-	-	phalanx 1s 3/4 fragment	-	-	-
Feature 89	freshwater drum	1	L	-	Pharyngeal portion (8 lbs)	-	-	-
Feature 89	wild turkey	1	-	shaft	immature tmt	-	-	-
Feature 89	wild turkey	1	L	prox	tbt portion	-	-	-
Subtotal		*44*				*6*	-	-
Feature 90	large mammal	1	-	-	-	-	-	-
Feature 90	white-tail deer	1	L	shaft	femur fragment	1	-	-
Subtotal		*2*				*1*	-	-
Feature 91	bird	1	-	-	-	-	-	-
Feature 91	small mammal	1	-	-	-	-	-	-
Feature 91	white-tail deer	1	-	-	maxillary premolar	-	-	-
Feature 91	rice rat	1	L	-	humerus	-	-	-
Subtotal		*4*				-	-	-
Feature 92	bird	1	-	-	-	-	-	-
Feature 92	large mammal	1	-	-	-	-	-	-
Feature 92	small rodent	1	-	dist	femur epiphysis	-	-	-
Feature 92	box turtle	1	-	-	plastron fragment	-	-	-
Subtotal		*4*				-	-	-
Feature 95	white-tail deer	1	-	-	2nd 3/4	-	-	-
Subtotal		*1*				-	-	-
Feature 96	large mammal	5	-	-	-	-	-	-
Feature 96	small mammal	1	-	-	-	-	-	-
Feature 96	fox squirrel	1	R	prox	ulna	-	-	-
Subtotal		*7*				-	-	-
Feature 101	bird	228	-	-	-	79	-	-
Feature 101	fish	75	-	-	-	28	-	-
Feature 101	human	1	-	-	nb to 0.5 yr skeleton	-	-	-
Feature 101	human	2	-	-	cranial fragments	-	-	-
Feature 101	large mammal	2025	-	-	(2 polished)	796	-	2
Feature 101	large mamal	1	-	-	(bone pin portion)	1	-	1
Feature 101	miscellaneous	85	-	-	-	-	-	-
Feature 101	small mammal	31	-	-	-	4	-	-
Feature 101	small rodent	10	-	-	-	-	-	-
Feature 101	turtle	238	-	-	-	57	-	-
Feature 101	box turtle	5	-	-	carapace fragment	-	-	-
Feature 101	box turtle	1	-	-	marginal	-	-	-
Feature 101	box turtle	10	-	-	plastron	-	-	-
Feature 101	barred owl	1	R	shaft	femur	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 101	beaver	1	-	-	incisor fragment (polished)	-	-	1
Feature 101	canada goose	1	R	-	tmt portion (immature)	-	-	-
Feature 101	cottontail rabbit	1	-	-	cranial fragment	-	-	-
Feature 101	cottontail rabbit	3	-	-	dental	-	-	-
Feature 101	cottontail rabbit	1	-	-	lumbar vertebra portion	-	-	-
Feature 101	cottontail rabbit	1	L	-	tf portion	-	-	-
Feature 101	cottontail rabbit	1	L	prox	radius	-	-	-
Feature 101	cottontail rabbit	1	R	-	tt	-	-	-
Feature 101	cottontail rabbit	1	R	-	humerus portion	1	-	-
Feature 101	cottontail rabbit	1	R	-	innominate portion	-	-	-
Feature 101	cottontail rabbit	1	R	-	scapula	-	-	-
Feature 101	cottontail rabbit	1	R	dist	humerus	1	-	-
Feature 101	cottontail rabbit	1	R	prox	femur	-	-	-
Feature 101	catfish	1	-	prox	pectoral spine portion (3lbs)	-	-	-
Feature 101	chipmunk	1	L	-	ramus portion	-	-	-
Feature 101	colubrid	40	-	-	vertebra	16	-	-
Feature 101	crow	1	R	prox	femur	-	-	-
Feature 101	white-tail deer	3	-	-	1st phalanx 3/4	-	-	-
Feature 101	white-tail deer	4	-	-	2ndphalanx 3/4	1	-	-
Feature 101	white-tail deer	1	-	-	3rd phalanx 3/4	-	-	-
Feature 101	white-tail deer	1	-	-	ml portion	-	-	-
Feature 101	white-tail deer	1	-	shaft	mc fragment	1	-	-
Feature 101	white-tail deer	2	-	-	mt fragment	1	-	-
Feature 101	white-tail deer	2	-	-	alveolar fragment	-	-	-
Feature 101	white-tail deer	2	-	-	antler tine (scraped/polished)	-	-	2
Feature 101	white-tail deer	1	-	-	atlas vertebra	-	-	-
Feature 101	white-tail deer	1	-	-	axis vertebra fragment	-	-	-
Feature 101	white-tail deer	1	-	-	cervical vertebra	-	-	-
Feature 101	white-tail deer	27	-	-	dental	-	-	-
Feature 101	white-tail deer	3	-	shaft	humerus	-	-	-
Feature 101	white-tail deer	1	-	-	hyoid fragment	-	1	-
Feature 101	white-tail deer	4	-	-	lumbar vertebra	-	-	-
Feature 101	white-tail deer	2	-	-	mandibular fragments	2	-	-
Feature 101	white-tail deer	1	-	-	maxillary dp4	-	-	-
Feature 101	white-tail deer	1	-	-	mtp epiphysis	-	-	-
Feature 101	white-tail deer	7	-	-	mtp fragments	-	-	-
Feature 101	white-tail deer	1	-	-	patella portion	-	-	-
Feature 101	white-tail deer	1	-	-	petrous fragment	-	-	-
Feature 101	white-tail deer	1	-	-	radius shaft	1	-	-
Feature 101	white-tail deer	6	-	-	rib fragments	-	-	-
Feature 101	white-tail deer	1	-	-	sacral vertebra portion	-	-	-
Feature 101	white-tail deer	3	-	-	scapula fragment	1	-	-
Feature 101	white-tail deer	1	-	-	thoracic spinous	-	-	-
Feature 101	white-tail deer	1	-	-	thoracic vertebra fused	-	-	-
Feature 101	white-tail deer	1	-	shaft	tibia fragment	-	-	-
Feature 101	white-tail deer	1	-	shaft	ulna fragment (polished)	1	-	1
Feature 101	white-tail deer	3	-	shaft	ulna fragments	-	-	-
Feature 101	white-tail deer	6	-	-	vertebra fragments	1	-	-
Feature 101	white-tail deer	1	-	dist	femoral condyle epiphysis	1	-	-
Feature 101	white-tail deer	1	-	prox	tibia epiphysis fragment	-	-	-
Feature 101	white-tail deer	1	L	-	tc+4	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 101	white-tail deer	3	L	-	tf portions	-	-	-
Feature 101	white-tail deer	2	L	-	tt	-	1	-
Feature 101	white-tail deer	1	L	-	ascending ramus	-	-	-
Feature 101	white-tail deer	1	L	-	femur shaft	-	-	-
Feature 101	white-tail deer	1	L	-	ramus portion with m1m2	-	-	-
Feature 101	white-tail deer	1	L	-	scapula portion	-	-	-
Feature 101	white-tail deer	1	L	ant	tibia shaft	-	-	-
Feature 101	white-tail deer	1	L	dist	humerus	-	-	-
Feature 101	white-tail deer	1	L	dist	tibia fragment	-	-	-
Feature 101	white-tail deer	3	L	post	tibia shaft	2	-	-
Feature 101	white-tail deer	1	L	prox	femur	1	-	-
Feature 101	white-tail deer	2	L	prox	radius	-	-	-
Feature 101	white-tail deer	1	L	prox	ulna	1	-	-
Feature 101	white-tail deer	1	R	-	c4	1	-	-
Feature 101	white-tail deer	2	R	-	c2+3	-	-	-
Feature 101	white-tail deer	2	R	-	m3	-	-	-
Feature 101	white-tail deer	2	R	-	tt	1	-	-
Feature 101	white-tail deer	1	R	-	premaxilla	1	-	-
Feature 101	white-tail deer	1	R	-	ramus with M2M3	-	-	-
Feature 101	white-tail deer	1	R	-	scapula portion	-	-	-
Feature 101	white-tail deer	3	R	dist	humerus	-	-	-
Feature 101	white-tail deer	1	R	dist	tibia fragment	1	-	-
Feature 101	white-tail deer	2	R	prox	mc	-	-	-
Feature 101	white-tail deer	2	R	prox	radius	-	-	-
Feature 101	white-tail deer	5	R	prox	ulna	3	-	-
Feature 101	domestic dog	2	-	-	canine portions	-	-	-
Feature 101	domestic dog	1	-	-	mandibular premolar	-	-	-
Feature 101	domestic dog	1	-	-	radius shaft	-	-	-
Feature 101	domestic dog	1	R	prox	ulna	-	-	-
Feature 101	freshwater drum	1	-	-	pharyngeal fragment	-	-	-
Feature 101	freshwater drum	14	-	-	teeth	8	-	-
Feature 101	fox squirrel	1	-	prox	femur fragment	-	-	-
Feature 101	fox squirrel	3	L	-	tf	-	-	-
Feature 101	fox squirrel	2	L	-	clavicle	-	-	-
Feature 101	fox squirrel	1	L	-	max I	-	-	-
Feature 101	fox squirrel	1	L	-	premax	-	-	-
Feature 101	fox squirrel	2	L	-	ulna	1	-	-
Feature 101	fox squirrel	1	R	-	tf	1	-	-
Feature 101	fox squirrel	1	R	-	tc	-	-	-
Feature 101	fox squirrel	1	R	-	clavicle	-	-	-
Feature 101	fox squirrel	1	R	-	innominate portion	-	-	-
Feature 101	fox squirrel	1	R	-	max I	-	-	-
Feature 101	frog/toad	1	-	-	radioluna	-	-	-
Feature 101	gray fox	4	-	-	dental	-	-	-
Feature 101	gray fox	1	L	-	maxillary portion	-	-	-
Feature 101	gray squirrel	4	-	-	I frags	-	-	-
Feature 101	gray squirrel	1	L	-	tf	-	-	-
Feature 101	gray squirrel	1	L	-	tt	1	-	-
Feature 101	gray squirrel	1	L	-	femur portion	-	-	-
Feature 101	gray squirrel	1	L	-	max I	-	-	-
Feature 101	gray squirrel	1	L	-	radius	-	-	-
Feature 101	gray squirrel	1	L	-	scapula portion	-	-	-
Feature 101	gray squirrel	1	L	dist	humerus	-	-	-
Feature 101	gray squirrel	1	L	dist	tibia	-	-	-
Feature 101	gray squirrel	1	L	prox	femur	1	-	-
Feature 101	gray squirrel	2	R	-	tf	-	-	-
Feature 101	gray squirrel	2	R	-	femur portions	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 101	gray squirrel	1	R	-	humerus portion	1	-	-
Feature 101	gray squirrel	2	R	-	innominate portions	2	-	-
Feature 101	gray squirrel	1	R	-	ramus	-	-	-
Feature 101	gray squirrel	1	R	-	tibia	-	-	-
Feature 101	gray squirrel	1	R	shaft	tibia	-	-	-
Feature 101	gray squirrel	1	R	dist	femur	-	-	-
Feature 101	gray squirrel	1	R	dist	humerus	-	-	-
Feature 101	gray squirrel	2	R	prox	femurs	-	-	-
Feature 101	gray squirrel	1	R	prox	ulna	-	-	-
Feature 101	map/painted turtle	5	-	-	marginal	-	-	-
Feature 101	mallard	1	L	-	tmt	1	-	-
Feature 101	mole	1	-	-	humerus fragment	-	-	-
Feature 101	mole	1	-	-	radius portion	1	-	-
Feature 101	mole	1	-	-	ulna portion	1	-	-
Feature 101	opossum	1	-	-	atlas vertebra	-	-	-
Feature 101	opossum	1	-	-	thoracic vertebra portion	-	-	-
Feature 101	quail	2	L	-	humerus	-	-	-
Feature 101	quail	1	L	-	tbt portion	-	-	-
Feature 101	quail	2	R	-	humerus	-	-	-
Feature 101	quail	1	R	dist	femur	-	-	-
Feature 101	rice rat	1	L	-	femur	-	-	-
Feature 101	rice rat	1	L	-	humerus	-	-	-
Feature 101	rice rat	1	L	-	innominate	-	-	-
Feature 101	rice rat	1	L	-	tibia portion	-	-	-
Feature 101	rice rat	2	R	-	femur	-	-	-
Feature 101	rice rat	2	R	-	humerus	-	-	-
Feature 101	rice rat	2	R	-	innominate	-	-	-
Feature 101	rice rat	1	R	-	tibia portion	-	-	-
Feature 101	raccoon	1	-	-	mandibular molar	-	-	-
Feature 101	raccoon	1	L	-	ramus	-	-	-
Feature 101	sand crane	1	L	-	cmc portion	-	-	-
Feature 101	serpent	5	-	-	rib	3	-	-
Feature 101	serpent	1	-	-	vertebra fragment	-	-	-
Feature 101	squirrel	1	-	-	cranial fragment	-	-	-
Feature 101	squirrel	1	-	prox	tibia fragment	-	-	-
Feature 101	sucker	2	R	-	cleithra	-	-	-
Feature 101	wild turkey	1	-	shaft	femur fragment	-	-	-
Feature 101	wild turkey	2	-	-	pes phalanx	-	-	-
Feature 101	wild turkey	1	-	-	radius shaft	-	-	-
Feature 101	wild turkey	1	-	-	rib	-	-	-
Feature 101	wild turkey	2	-	shaft	tbt	1	-	-
Feature 101	wild turkey	6	-	shaft	tmt (1 male)	1	-	-
Feature 101	wild turkey	2	-	shaft	ulna	-	-	-
Feature 101	wild turkey	1	-	-	vertebra	-	-	-
Feature 101	wild turkey	1	-	prox	fibula	-	-	-
Feature 101	wild turkey	1	L	shaft	humerus	-	-	-
Feature 101	wild turkey	1	L	shaft	tbt (immature)	-	-	-
Feature 101	wild turkey	1	L	-	tbt portion	-	-	-
Feature 101	wild turkey	1	R	shaft	femur	-	-	-
Feature 101	wild turkey	1	R	shaft	tbt (male)	-	-	-
Feature 101	wild turkey	1	R	dist	tbt (scored/snapped)	-	1	1
Feature 101	wild turkey	1	R	dist	tbt	-	-	-
Feature 101	wild turkey	2	R	prox	humerus portions	-	-	-
Feature 101	wild turkey	1	R	prox	tbt	-	-	-
Feature 101	viperid	7	-	-	vertebra	4	-	-
Feature 101	wapiti	1	-	-	lumbar vertebra body	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 101	wapiti	1	-	-	rib shaft	-	-	-
Subtotal		*3054*				*1031*	*3*	*8*
Feature 105	large mammal	1	-	-	-	-	-	-
Feature 105	turtle	1	-	-	-	-	-	-
Subtotal		*2*				-	-	-
Feature 107	large mammal	1	-	-	-	-	-	-
Subtotal		*1*				-	-	-
Feature 108	white-tail deer	1	-	-	vertebra epiphysis	-	-	-
Subtotal		*1*				-	-	-
Feature 109	viperid	1	-	-	vertebra	-	-	-
Subtotal		*1*				-	-	-
Feature 111	box turtle	1	-	-	marginal	-	-	-
Subtotal		*1*				-	-	-
Feature 112	bird	1	-	-	-	-	-	-
Feature 112	large mammal	1	-	-	-	-	-	-
Feature 112	small mammal	1	-	-	-	-	-	-
Subtotal		*3*				-	-	-
Feature 117	white-tail deer	1	-	-	mandibular m3	-	-	-
Subtotal		*1*				-	-	-
Feature 118	rice rat	1	-	-	femur	-	-	-
Subtotal		*1*				-	-	-
Feature 123	turtle	1	-	-	-	1	-	-
Feature 123	white-tail deer	1	-	dist	femoral condyle portion	1	-	-
Feature 123	large mammal	1	-	-	-	1	-	-
Subtotal		*3*				*3*	-	-
Feature 124	large mammal	2	-	-	-	-	-	-
Feature 124	small mammal	1	-	-	-	1	-	-
Feature 124	box turtle	1	-	-	coracoid	-	-	
Subtotal		*4*				*1*	-	-
Feature 126	white-tail deer	1	R	shaft	tibia	-	-	-
Feature 126	bird	1	-	-	-	-	-	-
Subtotal		*2*				-	-	-
Feature 128	large mammal	1	-	-	-	-	-	-
Feature 128	cottontail rabbit	1	L	prox	tibia	-	-	-
Feature 128	white-tail deer	1	R	-	mandibular m3	-	-	
Subtotal		*3*				-	-	-
Feature 129	bird	2	-	-	-	-	-	-
Feature 129	fish	2	-	-	-	-	-	-
Feature 129	large mammal	2	-	-	-	-	-	-
Feature 129	miscellaneous	1	-	-	-	-	-	-
Feature 129	turtle	2	-	-	-	-	-	-
Feature 129	box turtle	1	-	-	carapace fragment	-	-	-
Feature 129	rice rat	1	L	-	femur	-	-	-
Feature 129	rice rat	1	L	-	tibia	-	-	-
Subtotal		*12*				-	-	-
Feature 130	white-tail deer	1	-	shaft	radius	-	-	-
Feature 130	rice rat	1	R	-	tibia	-	-	-
Subtotal		*2*				-	-	-
Feature 131	large mammal	1	-	-	-	1	-	-
Feature 131	small mammal	1	-	-	-	-	-	-
Feature 131	box turtle	1	-	-	costal fragment	-	-	-
Feature 131	white-tail deer	1	-	-	innominate fragment	-	-	-
Subtotal		*4*				*1*	-	-
Feature 137	rice rat	1	-	-	femur	-	-	-
Subtotal		*1*				-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 139	box turtle	1	-	-	plastron fragment	-	-	-
Subtotal		*1*				-	-	-
Feature 140	large mammal	1	-	-	-	-	-	-
Subtotal		*1*				-	-	-
Feature 141	large mammal	1	-	-	-	-	-	-
Subtotal		*1*				-	-	-
Feature 152	large mammal	3	-	-	-	2	-	-
Feature 152	large mammal	1	-	-	(bone pin tip)	1	-	1
Subtotal		*4*				*3*	-	*1*
Feature 156	bird	2	-	-	-	1	-	-
Feature 156	box turtle	1	-	-	carapace fragment	1	-	-
Feature 156	cottontail rabbit	1	-	-	max I	-	-	-
Feature 156	white-tail deer	1	-	shaft	radius fragment	-	-	-
Feature 156	white-tail deer	1	-	shaft	tibia fragment	-	-	-
Subtotal		*6*				*2*	-	-
Feature 158	large mammal	1	-	-	-	-	-	-
Feature 158	small mammal	1	R	-	mtp fragment	-	-	-
Subtotal		*2*				-	-	-
Feature 162	bird	6	-	-	-	-	-	-
Feature 162	large mammal	7	-	-	-	-	-	-
Feature 162	miscellaneous	1	-	-	-	-	-	-
Feature 162	turtle	3	-	-	-	-	-	-
Feature 162	black bear	1	-	dist	mtp (possible cut dist condyle)	-	1	-
Feature 162	white-tail deer	3	-	-	1st 3/4	-	-	-
Feature 162	white-tail deer	1	-	-	vertebra fragment	-	-	-
Feature 162	white-tail deer	1	-	shaft	rib	-	-	-
Feature 162	white-tail deer	1	-	shaft	tibia	-	-	-
Feature 162	white-tail deer	1	L	-	maxillary p2p3m1	-	-	-
Feature 162	white-tail deer	1	L	-	thoracic spinous	-	-	-
Feature 162	white-tail deer	1	R	prox	mt	-	-	-
Feature 162	domestic dog	1	L	dist	humerus	-	-	-
Feature 162	gray fox	1	R	-	scapula	-	-	-
Feature 162	opossum	1	R	-	radius	1	-	-
Feature 162	wild turkey	1	L	dist	radius	-	-	-
Feature 162	wild turkey	1	L	dist	tmt	-	-	-
Feature 162	wild turkey	1	L	dist	ulna	-	-	-
Feature 162	wild turkey	1	R	-	cmc	-	-	-
Feature 162	wild turkey	1	R	prox	tmt	1	-	-
Feature 162	wild turkey	1	R	shaft	tbt	-	-	-
Subtotal		*36*				*2*	*1*	-
Feature 194	bird	1	-	-	-	-	-	-
Feature 194	fish	1	-	-	-	-	-	-
Feature 194	large mammal	13	-	-	-	-	-	-
Feature 194	box turtle	3	-	-	costal fragment	-	-	-
Feature 194	box turtle	1	-	-	nuchal bone	-	-	-
Feature 194	box turtle	1	-	-	plastron fragment	-	-	-
Feature 194	black bear	1	-	dist	ulna	-	-	-
Feature 194	white-tail deer	1	-	-	dental	-	-	-
Feature 194	white-tail deer	1	-	-	mtp fragment	-	-	-
Feature 194	white-tail deer	2	-	-	scapula blade fragment	-	-	-
Feature 194	white-tail deer	1	-	prox	femur head fragment	-	-	-
Feature 194	white-tail deer	2	-	shaft	rib	-	-	-
Feature 194	white-tail deer	1	L	-	vertebra fragment	-	-	-
Feature 194	white-tail deer	1	L	dist	tibia (cut shaft)	-	1	-
Feature 194	white-tail deer	1	L	shaft	radius	-	-	-
Feature 194	white-tail deer	1	R	-	maxillary m3	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 194	white-tail deer	1	R	-	scapula portion	-	-	-
Feature 194	white-tail deer	1	R	dist	radius	-	-	-
Feature 194	white-tail deer	1	R	prox	radius	-	-	-
Feature 194	white-tail deer	1	R	shaft	humerus	-	-	-
Feature 194	gray squirrel	1	R	prox	ulna	-	-	-
Subtotal		*37*				-	*1*	-
Feature 196	large mammal	2	-	-	-	-	-	-
Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 196	box turtle	1	-	-	carapace	-	-	-
Feature 196	cottontail rabbit	1	L	-	tibia	-	-	-
Feature 196	white-tail deer	1	-	-	1st 3/4	-	-	-
Feature 196	white-tail deer	1	-	shaft	mtp (domestic dog chewed)	-	-	-
Subtotal		*6*				-	-	-
Feature 211	white-tail deer	1	R	-	mt fragmented	-	-	-
Subtotal		*1*				-	-	-
Feature 359	bird	3	-	-	-	-	-	-
Feature 359	large mammal	31	-	-	-	-	-	-
Feature 359	small rodent	1	-	-	mtp	-	-	-
Feature 359	box turtle	1	-	-	carapace fragment	-	-	-
Feature 359	white-tail deer	2	-	-	dental	-	-	-
Feature 359	white-tail deer	1	L	-	scapula portion	-	-	-
Feature 359	white-tail deer	1	L	dist	tibia (cut ml)	-	1	-
Feature 359	white-tail deer	1	R	-	ramus with m2m3	-	-	-
Feature 359	white-tail deer	1	R	-	ramus with p2m1m2	-	-	-
Feature 359	white-tail deer	1	R	-	scapula portion	-	-	-
Feature 359	white-tail deer	1	R	dist	tibia shaft	-	-	-
Feature 359	white-tail deer	1	R	prox	mc	-	-	-
Feature 359	white-tail deer	1	R	prox	mt ant	-	-	-
Feature 359	opossum	1	L	dist	humerus	-	-	-
Feature 359	softshell turtle	1	-	-	costal portion	-	-	-
Feature 359	wild turkey	1	L	-	cmc fragment	-	-	-
Feature 359	wapiti	1	-	-	cervical vertebra (domestic dog chewed)	-	1	-
Feature 359	wapiti	1	-	shaft	rib	-	-	-
Subtotal		*51*				-	*2*	-
Feature 360	white-tail deer	1	L	-	antler (score/snap)	-	-	1
Subtotal		*1*				-	-	-
Feature 361	white-tail deer	1	R	-	scapula	-	-	-
Subtotal		*1*				-	-	-
Feature 365	domestic dog	1	-	-	atlas vertebra	-	-	-
Feature 365	domestic dog	1	-	-	axis vertebra	-	-	-
Subtotal		*2*				-	-	-
Feature 371	white-tail deer	1	R	-	innominate	-	-	-
Feature 371	gray squirrel	1	R	shaft	tibia	-	-	-
Subtotal		*2*				-	-	-
Feature 392	large mammal	1	-	-	-	-	-	-
Feature 392	white-tail deer	1	R	-	tibia	-	-	-
Subtotal		*2*				-	-	-
Feature 587	white-tail deer	1	-	-	beam (shed)	-	-	-
Subtotal		*1*				-	-	-
Feature 588	white-tail deer	1	-	-	antler portion	-	-	-
Feature 588	wild turkey	1	R	dist	coracoid portion	-	-	-
Feature 588	wild turkey	1	R	dist	ulna	-	-	-
Subtotal		*3*				-	-	-
Feature 739	large mammal	10	-	-	-	-	-	-
Feature 739	white-tail deer	1	-	-	3rd 3/4	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Feature 739	white-tail deer	3	-	-	mtp fragment	-	-	-
Feature 739	white-tail deer	1	-	dist	mc	-	-	-
Feature 739	white-tail deer	1	R	prox	tibia ant shaft	-	-	-
Feature 739	white-tail deer	1	R	prox	tibia epiphysis	-	-	-
Subtotal		*17*				-	-	-
Feature 740	large mammal	6	-	-	-	1	-	-
Subtotal		*6*				*1*	-	-
Feature 741	large mammal	17	-	-	-	11	-	-
Feature 741	white-tail deer	1	-	-	mtp fragment	-	-	-
Feature 741	white-tail deer	1	-	-	rib fragment	-	-	-
Feature 741	white-tail deer	1	L	prox	cmc	-	-	-
Feature 741	white-tail deer	1	L	shaft	radius post	-	-	-
Subtotal		*21*				*11*	-	-
Feature 880	bird	8	-	-	-	2	-	-
Feature 880	fish	2	-	-	-	-	-	-
Feature 880	large mammal	56	-	-	-	5	-	-
Feature 880	small mammal	3	-	-	-	1	-	-
Feature 880	turtle	2	-	-	-	-	-	-
Feature 880	box turtle	2	-	-	costal fragment	1	-	-
Feature 880	box turtle	2	-	-	marginal bone	-	-	-
Feature 880	box turtle	7	-	-	plastron fragments	-	-	-
Feature 880	white-tail deer	1	-	-	dental	-	-	-
Feature 880	white-tail deer	3	-	-	scapula blade fragment	-	-	-
Feature 880	white-tail deer	1	-	-	sesamoid	-	-	-
Feature 880	white-tail deer	1	-	prox	3rd 3/4	-	-	-
Feature 880	white-tail deer	1	-	prox	rib fragment	-	-	-
Feature 880	white-tail deer	1	-	shaft	mc ant	-	-	-
Feature 880	white-tail deer	1	-	shaft	mt ant	-	-	-
Feature 880	white-tail deer	2	-	shaft	femur ant	-	-	-
Feature 880	white-tail deer	1	-	shft	radius post	-	-	-
Feature 880	white-tail deer	1	L	prox	mc (split ant)	-	-	1
Feature 880	white-tail deer	1	L	prox	mt (split ant)	-	-	1
Feature 880	white-tail deer	1	R	-	ischium	-	-	-
Feature 880	white-tail deer	1	R	-	pubic bone	-	-	-
Feature 880	white-tail deer	1	R	-	tf	-	-	-
Feature 880	white-tail deer	1	R	dist	femur med condyle	-	-	-
Feature 880	white-tail deer	1	R	dist	humerus	-	-	-
Feature 880	white-tail deer	1	R	dist	tibia (cut across rt malleolus)	-	1	-
Feature 880	white-tail deer	1	R	prox	radius (cut deep medial shaft)	-	1	-
Feature 880	white-tail deer	2	R	shaft	femur	-	1	-
Feature 880	fox squirrel	1	R	-	innominate	-	-	-
Feature 880	gray fox	1	R	-	ramus	-	-	-
Feature 880	gray fox	1	R	-	ramus ant portion	1	-	-
Feature 880	gray squirrel	1	R	-	radius	1	-	-
Feature 880	gray squirrel	1	R	shaft	femur	-	-	-
Feature 880	gray squirrel	1	R	shaft	tibia	-	-	-
Feature 880	rice rat	1	R	-	femur	-	-	-
Feature 880	rice rat	1	R	-	innominate	-	-	-
Feature 880	rice rat	1	R	-	tibia	-	-	-
Subtotal		*114*				*11*	*3*	*2*
Plow Strip A2	bird	1	-	-	-	-	-	-
Subtotal		*1*				-	-	-
Plow Strip A4	bird	1	-	-	-	-	-	-
Plow Strip A4	human	2	-	-	cranial fragment	-	-	-
Plow Strip A4	large mammal	4	-	-	-	3	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Plow Strip A4	turtle	3	-	-	-	-	-	-
Plow Strip A4	black bear	1	R	prox	ulna	-	-	-
Plow Strip A4	white-tail deer	1	L	prox	ulna	-	-	-
Subtotal		*12*				*3*	-	-
Plow Strip A5	large mammal	3	-	-	-	3	-	-
Plow Strip A5	turtle	1	-	-	-	1	-	-
Plow Strip A5	white-tail deer	1	-	-	mtp fragment	-	-	-
Plow Strip A5	wild turkey	1	R	prox	femur	-	-	-
Subtotal		*6*				*4*	-	-
Plow Strip A6	large mammal	7	-	-	-	-	-	-
Plow Strip A6	small mammal	1	-	-	-	-	-	-
Plow Strip A6	turtle	1	-	-	-	-	-	-
Subtotal		*9*				-	-	-
Plow Strip B1	large mammal	3	-	-	-	3	-	-
Plow Strip B1	white-tail deer	1	-	-	1st 2/5	-	-	-
Subtotal		*4*				*3*	-	-
Plow Strip B2	large mammal	2	-	-	-	2	-	-
Plow Strip B2	box turtle	1	-	-	neural bone	-	-	-
Subtotal		*3*				*2*	-	-
Plow Strip B3	human	1	-	-	cranial fragment	-	-	-
Plow Strip B3	wapiti	1	L	-	humerus portion	-	-	-
Subtotal		*2*				*2*	-	-
Plow Strip B4	bird	1	-	-	-	-	-	-
Plow Strip B4	large mammal	2	-	-	-	2	-	-
Plow Strip B4	black bear	1	L	prox	ulna portion	-	-	-
Plow Strip B4	white-tail deer	1	-	-	antler fragment	-	-	-
Plow Strip B4	domestic dog	1	-	-	dental	-	-	-
Subtotal		*6*				*2*	-	-
Plow Strip B5	large mammal	4	-	-	-	4	-	-
Plow Strip B5	white-tail deer	1	-	-	radius fragment	-	-	-
Plow Strip B5	white-tail deer	1	-	dist	humerus fragment	-	-	-
Plow Strip B5	white-tail deer	1	R	dist	humerus	-	-	-
Plow Strip B5	white-tail deer	1	R	prox	mc	-	-	-
Subtotal		*8*				*4*	-	-
Plow Strip B6	bird	3	-	-	-	2	-	-
Plow Strip B6	human	1	-	-	cranial fragment	-	-	-
Plow Strip B6	large mammal	8	-	-	-	3	-	-
Plow Strip B6	turtle	3	-	-	-	1	-	-
Plow Strip B6	white-tail deer	1	R	-	tt portion	1	-	-
Plow Strip B6	white-tail deer	1	R	prox	radius	-	-	-
Plow Strip B6	wapiti	1	L	-	innominate portion	-	-	-
Subtotal		*18*				*7*	-	-
Plow Strip C1	bird	1	-	-	-	1	-	-
Plow Strip C1	large mammal	2	-	-	-	-	-	-
Subtotal		*3*				*1*	-	-
Plow Strip C2	large mammal	12	-	-	-	5	-	-
Plow Strip C2	turtle	2	-	-	-	-	-	-
Plow Strip C2	white-tail deer	2	-	-	dental	-	-	-
Plow Strip C2	white-tail deer	1	-	shaft	ulna	-	-	-
Plow Strip C2	white-tail deer	1	L	ant	tibia shaft	-	-	-
Plow Strip C2	striped skunk	1	L	-	ramus fragment	-	-	-
Subtotal		*19*				*5*	-	-
Plow Strip C3	large mammal	5	-	-	-	-	-	-
Plow Strip C3	white-tail deer	1	-	-	1st 3/4	-	-	-
Plow Strip C3	white-tail deer	2	-	-	mc fragment	-	-	-
Plow Strip C3	white-tail deer	1	-	dist	mtp condyle	-	-	-
Plow Strip C3	white-tail deer	1	R	dist	tibia	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Subtotal		*10*				-	-	-
Plow Strip C4	large mammal	5	-	-	-	1	-	-
Plow Strip C4	turtle	2	-	-	-	-	-	-
Subtotal		*7*				*1*	-	-
Plow Strip C5	bird	1	-	-	-	-	-	-
Plow Strip C5	large mammal	4	-	-	-	-	-	-
Plow Strip C5	turtle	1	-	-	-	1	-	-
Plow Strip C5	white-tail deer	1	-	-	mtp 2/5 fragment	-	-	-
Plow Strip C5	white-tail deer	1	L	shaft	femur portion	-	-	-
Subtotal		*8*				*1*	-	-
Plow Strip C6	large mammal	2	-	-	-	1	-	-
Plow Strip C6	white-tail deer	1	-	shaft	tibia fragment	-	-	-
Plow Strip C6	white-tail deer	1	L	dist	radius	-	-	-
Subtotal		*4*				*1*	-	-
Plow Strip C7	human	1	-	-	cervical vertebra	-	-	-
Plow Strip C7	human	2	-	-	cranial fragment	-	-	-
Plow Strip C7	human	3	-	-	long bone fragments	-	-	-
Plow Strip C7	large mammal	9	-	-	-	3	-	-
Plow Strip C7	box turtle	2	-	-	marginal bones	-	-	-
Plow Strip C7	white-tail deer	1	L	shaft	humerus fragment	-	-	-
Subtotal		*18*				*3*	-	-
Plow Strip D4	bird	1	-	-	-	-	-	-
Plow Strip D4	human	1	-	-	cranial fragment	-	-	-
Plow Strip D4	human	1	-	-	mandibular molar	-	-	-
Plow Strip D4	human	1	R	prox	radius portion	-	-	-
Plow Strip D4	large mammal	1	-	-	-	-	-	-
Plow Strip D4	box turtle	1	-	-	marginal bone	-	-	-
Subtotal		*6*				-	-	-
Plow Strip D5	large mammal	3	-	-	(polished)	-	-	1
Plow Strip D5	turtle	1	-	-	-	-	-	-
Plow Strip D5	white-tail deer	1	-	-	mt fragment	-	-	-
Subtotal		*6*				-	-	*1*
Plow Strip D6	large mammal	4	-	-	-	-	-	-
Plow Strip D6	turtle	1	-	-	-	-	-	-
Plow Strip D6	white-tail deer	1	-	shaft	mt fragment	-	-	-
Subtotal		*6*				-	-	-
Plow Strip D7	bird	2	-	-	-	1	-	-
Plow Strip D7	large mammal	6	-	-	-	2	-	-
Plow Strip D7	turtle	1	-	-	-	-	-	-
Subtotal		*9*				*3*	-	-
Plow Strip E2	large mammal	1	-	-	-	-	-	-
Subtotal		*1*				-	-	-
Plow Strip E3	human	1	-	-	cranial fragment	-	-	-
Plow Strip E3	large mammal	2	-	-	-	-	-	-
Subtotal		*3*				-	-	-
Plow Strip E4	human	8	-	-	cranial fragments	-	-	-
Plow Strip E4	human	5	-	-	long bone fragments	-	-	-
Plow Strip E4	human	1	-	-	vertebra fragments	-	-	-
Plow Strip E4	human	1	-	dist	ulna portion	-	-	-
Plow Strip E4	human	1	R	-	mandible portion	-	-	-
Plow Strip E4	large mammal	5	-	-	-	-	-	-
Plow Strip E4	turtle	2	-	-	-	-	-	-
Plow Strip E4	cottontail rabbit	1	R	prox	femur	-	-	-
Plow Strip E4	white-tail deer	1	-	shaft	tibia fragment	-	-	-
Plow Strip E4	white-tail deer	1	L	-	tc+4	-	-	-
Plow Strip E4	white-tail deer	1	L	-	innominate fragment	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Plow Strip E4	wapiti	1	-	-	1st 3/4 portion	-	-	-
Subtotal		*28*				-	-	-
Plow Strip E5	human	1	-	-	fibula fragments	-	-	-
Plow Strip E5	human	1	-	shaft	rib	-	-	-
Plow Strip E5	woodchuck	1	L	-	femur portion	-	-	-
Subtotal		*3*				-	-	-
Plow Strip E6	human	1	-	dist	ulna portion	-	-	-
Subtotal		*1*				-	-	-
Plow Strip E7	large mammal	4	-	-	-	-	-	-
Subtotal		*4*				-	-	-
Plow Strip F1	white-tail deer	1	R	-	tf portion	-	-	-
Subtotal		*1*				-	-	-
Plow Strip F4	human	2	-	-	cranial fragments	-	-	-
Subtotal		*2*				-	-	-
Plow Strip F5	human	1	-	-	cranial fragment	-	-	-
Plow Strip F5	human	1	-	-	vertebra fragment	-	-	-
Plow Strip F5	large mammal	3	-	-	-	-	-	-
Plow Strip F5	white-tail deer	1	R	-	tf portion	-	-	-
Plow Strip F5	white-tail deer	1	R	dist	humerus portion	-	-	-
Plow Strip F5	wapiti?	1	-	prox	radius fragment	-	-	-
Subtotal		*8*				-	-	-
Plow Strip F7	human	1	-	-	cranial fragment	-	-	-
Plow Strip F7	human	1	-	-	ishium portion	-	-	-
Plow Strip F7	large mammal	2	-	-	-	-	-	-
Plow Strip F7	white-tail deer	1	-	-	vertebra body	-	-	-
Plow Strip F7	white-tail deer	1	L	dist	humerus	-	-	-
Subtotal		*6*				-	-	-
Plow Strip G2	large mammal	1	-	-	-	-	-	-
Plow Strip G2	turtle	1	-	-	-	-	-	-
Plow Strip G2	white-tail deer	1	L	dist	humerus	-	-	-
Subtotal		*3*				-	-	-
Plow Strip G3	large mammal	1	-	-	-	-	-	-
Plow Strip G3	turtle	1	-	-	-	-	-	-
Plow Strip G3	white-tail deer	1	-	-	antler beam (polished, unshed)	-	-	1
Subtotal		*3*				-	-	*1*
Plow Strip G4	large mammal	1	-	-	-	-	-	-
Plow Strip G4	white-tail deer	1	-	-	mc fragment	-	-	-
Plow Strip G4	white-tail deer	1	-	-	femur head epiphysis	-	-	-
Plow Strip G4	white-tail deer	1	-	-	scapula fragment	-	-	-
Plow Strip G4	white-tail deer	1	R	shaft	humerus portion	-	-	-
Subtotal		*5*				-	-	-
Plow Strip G7	turtle	1	-	-	-	-	-	-
Subtotal		*1*				-	-	-
Plow Strip H4	large mammal	1	-	-	-	-	-	-
Subtotal		*1*				-	-	-
Plow Strip M9	human	2	-	-	cranial fragments	1	-	-
Plow Strip M9	human	3	-	-	long bone fragments	1	-	-
Plow Strip M9	human	1	R	-	navicular	-	-	-
Plow Strip M9	human	1	R	-	scapula portion	-	-	-
Subtotal		*7*				*2*	-	-
Plow Strip N7	human	1	-	-	cranial fragment	-	-	-
Subtotal		*1*				-	-	-
Plow Strip N8	human	1	-	-	lumbar vertebra	-	-	-
Plow Strip N8	human	2	-	-	miscellaneous long bones	-	-	-

Provenience	Species	Count	Side	End	Element	Burned	Cut	Modified
Plow Strip N8	human	1	-	shaft	mtp	-	-	-
Subtotal		*4*				-	-	-
Plow Strip O10	large mammal	2	-	-	-	-	-	-
Subtotal		*2*				-	-	-
Plow Strip O9	human	7	-	-	miscellaneous fragments	-	-	-
Plow Strip O9	human	1	-	shaft	rib	-	-	-
Plow Strip O9	human	2	-	-	thoracic vertebra	-	-	-
Subtotal		*10*				-	-	-
Plow Strip P9	human	1	-	-	condyle portion (female)	-	-	-
Plow Strip P9	human	1	-	shaft	tibia portion	-	-	-
Plow Strip P9	human	1	R	-	innominate portion	-	-	-
Subtotal		*4*				-	-	-
Plow Strip Q7	human	1	-	shaft	ulna fragment	-	-	-
Subtotal		*1*				-	-	-
TOTALS		**8667**				**1844**	**19**	**36**

APPENDIX G

TEXTILES IMPRESSED ON RUTHERFORD-KIZER CERAMICS

Suzanne D. Hoyal

The Rutherford-Kizer fabric impressed ceramic pan assemblage totals 309 sherds and partial vessels. Three sherds display impressions of more than one textile structure, bringing the total cases to 313. Measurement and notation of textile attributes derive from an examination of both negative fabric impressions on ceramic sherds and their positive baked clay casts. The results of a visual comparison within provenience indicate an estimated 195 distinct textile structures. The textile structure counts are the primary source for percentages and totals, however, some of the tables herein include case counts as well.

Twining is the predominant textile construction technique represented in the fabric impressions on Rutherford-Kizer ceramics. Only a few examples (*n*=5) of probable interlacing are present. Knotting and basketry impressions are absent. Both twining and interlacing are techniques for hand weaving textiles using a variety of warp and weft interactions (Figures 102 and Figure 103).

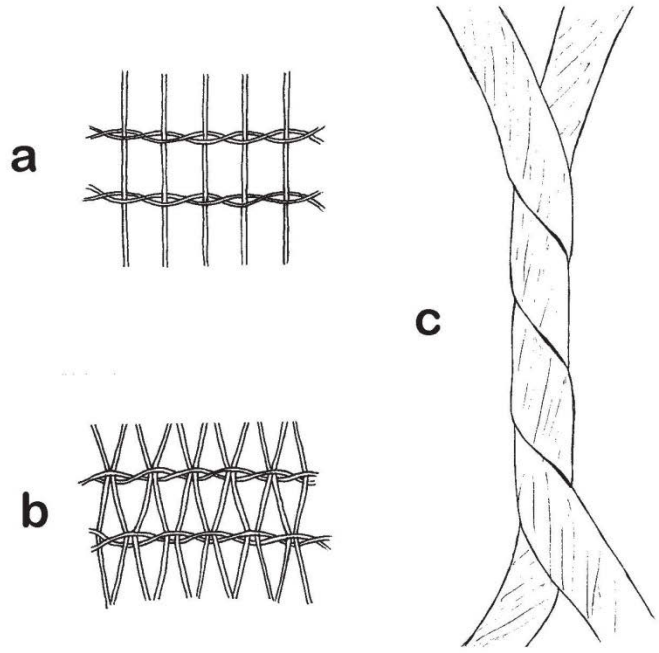

Figure 102. Twining and yarn structure: (a) *plain (simple)* twining -- two active yarns pass over and under a single inactive warp and over each other in between the warps [interlacing consists of one active yarn that passes over and under inactive yarns]; (b) alternate pair (diagonal, twilled, or zigzag) twining -- two active yarns pass over and under alternating pairs of inactive yarns; (c) two ply, **Z**-spun, **S**-twist yarn.

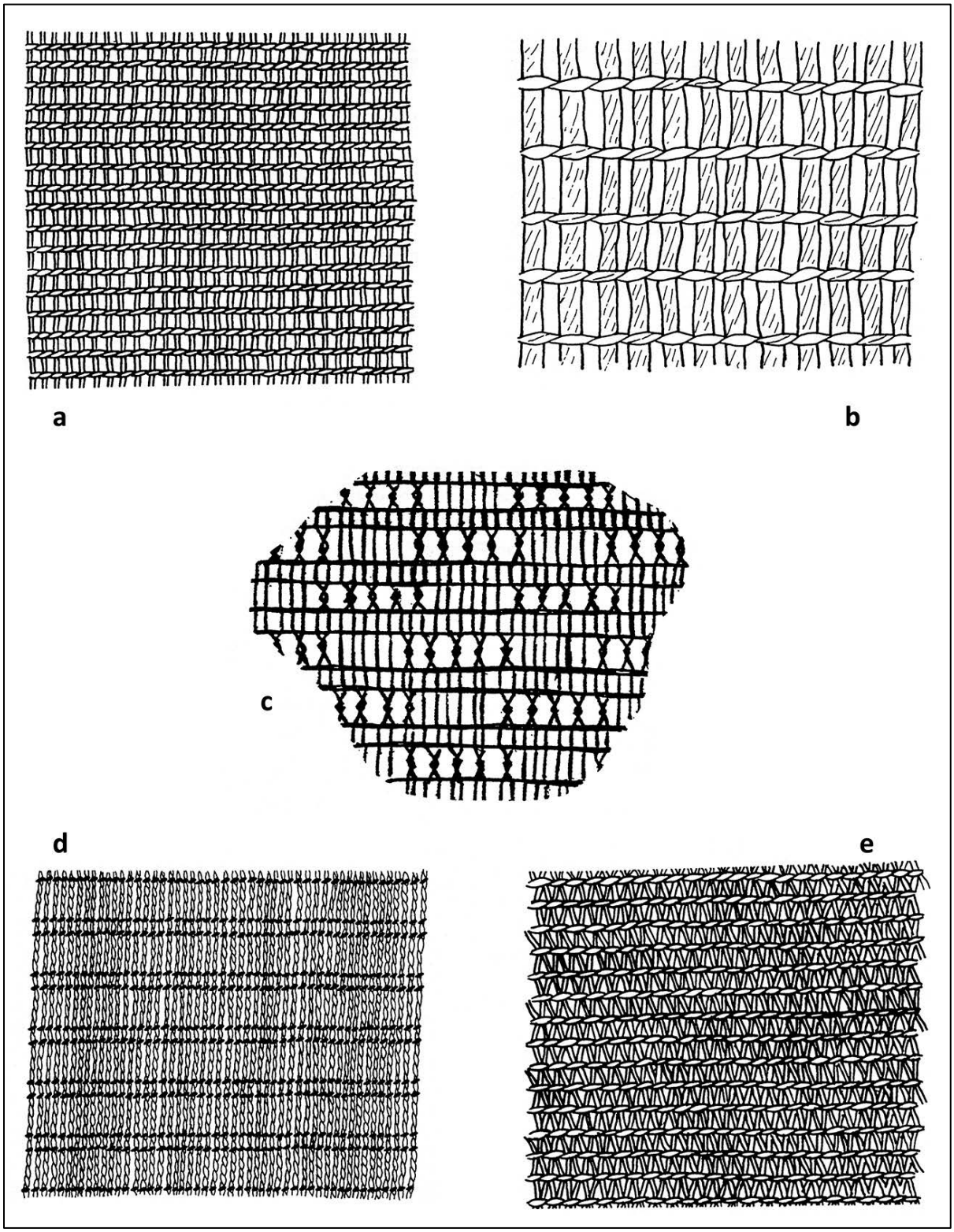

Figure 103. Twining variations: (a and b) plain twining alone; (c) plain twining combined with transposed interlinked warps, Rutherford-Kizer TS# 110; (d) plain twining combined with grouped weft rows; and (e) alternate pair twining alone.

Of the estimated 195 distinct textile structures, 97.4% are twined, either *plain* or *alternate pair:* 61.6% occur alone, 13.8% in complex/decorative variations, and 22% in compact variations. Complex/decorative variations of plain and alternate pair twining display grouped weft rows, diverted warps, or transposed interlinked warps. Compact variations are those in which the weft rows are less than 2 millimeters apart (compact with no visible warp is also known as weft-faced). Despite the close placement of weft rows, careful examination of compact textiles can usually determine whether a structure is plain or alternate pair twined, or interlaced. In 2.6% of the textile structures (all with no visible warps) the textile faces indicate probable interlacing rather than twining.

Plain twining occurs alone (*n*=98); in complex/decorative structures with grouped weft rows (*n*=6), diverted warp(s) (*n*=2), or transposed interlinked warps (*n*=2); and in compact structures (*n*=3). Alternate pair twining occurs alone (*n*=22); in complex/decorative structures with grouped weft rows (*n*=15), or transposed interlinked warps (*n*=2); and in compact structures (*n*=38). Of the remaining compact structures (*n*=7), two are probably twined and five are probably interlaced. In one example of alternate pair twining, ID# 26, the grouped weft band contains three twining rows; all other grouped weft bands contain two twining rows. Table 29 presents the distribution of both textile structures and cases by provenience.

An examination of Table 29 entries for Feature 20 demonstrates that "number of structures" rather than "number of cases" more accurately quantifies textiles impressed on Mississippian period pans. The material from Feature 20, a basin-shaped refuse-filled pit, includes portions of two vessels that, despite cross-mending, comprise 28 of the 58 cases. One vessel displays plain twining combined with grouped wefts and the other displays plain twining combined with transposed interlinked warps, resulting in an inflated number of cases for decorative textiles. Other less obvious disparities appear in Feature 36 and Feature 101, providing additional support for textile structure count as the primary basis of analysis.

All twining in the Rutherford-Kizer sample occurs in the **"S"** direction. Twining direction can be observed by holding the clay cast with the weft vertically oriented. The twining slants down to the right as in an "**S**" mid-section. This study interprets all twining rows as wefts, such as the horizontal elements illustrated in Figure 102. A twining row generally consists of two active yarns passing through inactive warps. Although twining rows are known to sometimes be composed of three active yarns, there is no evidence in this study to indicate more than two.

Measurement and notation of yarn attributes reveal that over 95% of the weft yarns and 90% of the warp yarns are discernibly two ply, **S**-twist (Figure 102c). Four structures exhibit two ply, **Z-**twist warp yarns--TS#'s 52, 121, 137, and 171. One structure exhibits single ply, **Z**-spun warp yarns--TS# 47. There are no braided yarns or yarns composed of unspun bundles of fibers. Yarn diameters range from 0.6 mm to 3.0 mm, with an average of 1.3 mm.

Table 29. Textile Structures by Provenience from the Rutherford-Kizer site, 40SU15

Provenience	# Structures	# Cases	PT		PTgw		PTdw	PTtiw		CPT	APT		APTgw		APTtiw	CAPT		Ct	Ci	UNK
General Surface *	42	52	20	27	2	2	1			1	2	2	3	3		13	15			1
Test Unit 1, L2	3	3	3	3																
Test Unit 2, L1	9	12	3	4							2	2				4	5			1
Test Unit 3, L1		1																		1
Fill, SB-A	2	2	2	2																
Fill, SB-B	14	20	7	7	1	1					2	3	1	2		3	6			1
Fill, SB-C		1																		1
Fill over fea.20/36	6	6	2	2									1	1		2	2	1		
Plow Strip B2	1	1	1	1																
Plow Strip B4		1																		1
Plow Strip C2	2	2	2	2																
Plow Strip C3	1	2		1							1	1								
Plow Strip D7	1	1														1	1			
Plow Strip E2	1	1	1	1																
Plow Strip E3	1	1																1		
Plow Strip E5	1	1	1	1																
Plow Strip E6	1	1	1	1																
Plow Strip F2	1	1									1	1								
Plow Strip G6		1																		1
Backhoe Trench-A	3	3	2	2												1	1			
Backhoe Trench-K	11	23	5	12							1	1	2	4		3	5			1
Burial 39	1	1																	1	
Structure 5	1	1													1					
Feature 12	2	2	2	2																
Feature 14	2	2	1	1											1					
Feature 20 *	19	58	4	6	1	12	1	1	16		3	6	4	10		4	5		1	1
Feature 36 *	24	47	11	13	1	4		1	1	1	3	9	3	7		2	5		2	5
Feature 86	1	1	1	1																
Feature 88	2	2	1	1	1	1														
Feature 89	3	3	3	3																
Feature 95	2	3									2	3								
Feature 96	1	1	1	1																

Table 29. Textile Structures by Provenience from the Rutherford-Kizer site, 40SU15 (continued)

Provenience	# Structures	# Cases	PT		PTgw		PTdw	PTtiw		CPT	APT		APTgw		APTtiw	CAPT		Ct	Ci	UNK
Feature 101	11	24	9	20												1	1		1	2
Feature 109	1	1	1	1																
Feature 112	1	1									1	1								
Feature 119	1	1	1	1																
Feature 162	3	3	2	2							1	1								
Feature 194		1																		1
Feature 196	1	1								1										
Feature 359	2	2											1	1		1	1			
Feature 361	1	1	1	1																
Feature 365	1	1	1	1																
Feature 425	2	2	1	1												1	1			
Feature 500	1	2	1	2																
Feature 587	1	1	1	1																
Feature 588	3	7	3	7																
Feature 696	1	1	1	1																
Feature 702	1	1									1	1								
Feature 880	6	6	2	2							2	2				2	2			
Total	195	313	98	134	6	20	2	2	17	3	22	33	15	28	2	38	50	2	5	17
Percent of total structures			50.3		3.1		1	1		1.5	11.3		7.7		1	19.5		1	2.6	
Percent of total cases				42.8		6.4	0.6		5.4	1		10.5		9	0.6		16	0.6	1.6	5.4

* includes 1 sherd with two or more structures

cases

(# of cases and # of structures are the same for PTdw, APTtiw, CPT, Ct, and Ci columns)

PT=plain twining; PTgw=plain twining combined with grouped weft rows; PTdw=plain twining with diverted warp(s); PTtiw=plain twining combined with transposed interlinked warps; CPT=compact plain twining; APT=alternate pair twining; APTgw=alternate pair twining combined with grouped weft rows; APTtiw=alternate pair twining combined with transposed interlinked warps; CAPT=compact alternate pair twining; Ct=compact probably twining; Ci=compact probably interlacing; UNK=unknown (includes twining unknown-Tu, completely undetermined-UND, loose yarns parallel-LYP, and loose yarns non-parallel-LYNP).

Additional attributes include: (a) weft row diameters ranging from 0.8 mm to 4.0 mm with an average of 1.55 mm; (b) fabric counts ranging from 3.2 mm to 21.8 mm with an average of 9.70 mm; and (c) fabric density ranging from 4.98 mm to 18.72 mm with an average of 9.55 mm. A complete attribute summary appears in Table 30.

Table 30. Summary of Attributes for Textiles from the Rutherford-Kizer site, 40SU15.

Attribute	Minimum*	Mean Structures/*(Cases)*		Maximum*	# Structures *# Cases*	
Warp diameter (in mm)	0.80	1.30	*(1.29)*	3.00	187	*(291)*
Weft diameter (in mm)	0.60	1.28	*(1.27)*	3.00	195	*(298)*
Average yarn diameter(mm)	0.70	1.29	*(1.28)*	3.00	186	*(286)*
Weft row diameter (in mm)	0.80	1.57	*(1.55)*	4.00	194	*(294)*
Number of warp plies	1	1.88	*(1.90)*	2	193	*(297)*
Number of weft plies	1	1.94	*(1.96)*	2	195	*(296)*
Warp twist angle category	1	2.01	*(1.98)*	3	193	*(297)*
Warp elements per cm	2	5.37	*(5.41)*	11	193	*(295)*
Weft elements per cm	1	4.42	*(4.24)*	14	193	*(290)*
Weft rows per cm	0.50	2.31	*(2.17)*	9	193	*(293)*
Fabric count	3.20	9.70	*(9.58)*	21.8	190	*(285)*
Warp density	3.30	6.33	*(6.37)*	10.32	187	*(287)*
Weft density	0.60	3.44	*(3.22)*	10.62	193	*(290)*
Total density	4.98	9.55	*(9.42)*	18.72	186	*(281)*
Fabric count category	1	2.47	*(2.42)*	5	190	*(285)*
Complexity index # 1	2	3.61	*(3.65)*	6	190	*(285)*
Complexity index # 2	4	5.53	*(5.58)*	8	190	*(285)*
Complexity index # 3	5.5	7.53	*(7.56)*	10	189	*(284)*

* Minimum and maximum structure counts and case counts do not differ.

Two impressions of fabric edges are present. One edge is compact alternate pair twining on a textile of alternate pair twining combined with grouped wefts that overlaps a different textile, also of alternate pair twining combined with grouped wefts, (ID#'s 153, 154, 155). The other edge is compact plain twining on a textile of plain twining (ID#'s 245 & 246).

Nearly one-half of the estimated 195 textile structures exhibit no evidence of wear. There are 11 examples of layered or overlapping textiles. Two impressions occur on disks, ID# 103 and ID# 200. Eighty-three impressions occur on rim sherds--Table 31 lists angles of weft to the rim, rim thickness, and body thickness.

Table 32 contains case number (ID#), textile structure number (TS#) and all measurements, indices, and notations for 313 cases. The last page of Table 32 includes two sets of statistical summaries, one for total cases (*n*=313) and one for total textile structures (*n*=195), as well as an abbreviation/formula key.

Consult Drooker (1992), Hoyal (1997), Kuttruff (1993), and Kuttruff and Kuttruff (1996) for further information on terminology and method of analysis. The Rutherford-Kizer textile data will be added to information currently being compiled for Mississippian sites in the Middle Cumberland region (Hoyal 1996, 1998).

Table 31. Textile Impressed Rim Sherds from the Rutherford-Kizer site, 40SU15.

ID#	Provenience	Angle of weft to rim	Rim thickness (mm)	Body thickness minimum (mm)
1	General Surface	150	18	7
2	General Surface	90	13.3	6.1
3	General Surface	160	19.4	10
4	General Surface	110	20.8	7.3
5	General Surface	40	19	14
9	General Surface	105		
23	General Surface	85	17.1	8.5
24	General Surface	75	17.2	11.3
25	General Surface	160	19.7	9.6
27	General Surface	90	19.6	8.1
28	General Surface	75		
35	General Surface	25	19.6	
38	General Surface	150	39.8	9.75
39	General Surface	20	20	9.4
40	General Surface	165	24.5	11
41	General Surface	10	21.6	10.6
42	General Surface	20	27	11
45	General Surface	10	21.6	8.9
48	General Surface	60	20.9	8.8
49	General Surface	175	16.4	8.3
50	General Surface	170	17.4	8.3
51	General Surface	100	29.3	15
52	General Surface	165	20	7.3
71	Fill, Strip Block B	55	24	9.3
72	Fill, Strip Block B	60	22.4	5.1
73	Fill, Strip Block B	45	18.2	9.1
76	Fill, Strip Block B	10	20.5	6.6
80	Fill, Strip Block B	110	16.8	8.9
81	Fill, Strip Block B	145	16.8	6.7
87	Fill, Strip Block B	30	23.1	10.6
88	Fill, Strip Block B	160	17.2	8.5
90	Fill, Strip Block B	70	21.7	9.5
91	Fill, Strip Block C	25	22.2	7.8
92	Fill, Features 20/36	90	22.3	8.9
93	Fill, Features 20/36	125	21.1	17
99	Plow Strip B4	175	21.7	6.1
102	Plow Strip C3	45		
105	Plow Strip E2	110	16.5	5.4
121	Backhoe Trench K	60	17.3	13.5
122	Backhoe Trench K		23.5	6.1
123	Backhoe Trench K	150	20.2	11.1
124	Backhoe Trench K	15	19.1	7.2
125	Backhoe Trench K	35	19.5	8.7
126	Backhoe Trench K	140	16.6	9
138	Structure 5	85	18.8	7.2
152	Feature 20	90	16.1	5.7

Table 31. Textile Impressed Rim Sherds from the Rutherford-Kizer site, 40SU15 (continued).

ID#	Provenience	Angle of weft to rim	Rim thickness (mm)	Body thickness minimum (mm)
156	Feature 20	35	19.4	9.1
157	Feature 20	140	20.6	5.5
158	Feature 20	165	21.6	3.6
169	Feature 20	145	25.2	6.4
173	Feature 20	115	14.2	7.6
174	Feature 20	65	20.8	10.3
176	Feature 20	160	22.7	9.1
177	Feature 20	90	16.9	10
178	Feature 20	65	16.2	10.8
179	Feature 20	15	17.2	3.5
180	Feature 20	70	18.6	4.5
199	Feature 20	85	24.7	4.2
208	Feature 36	120		
218	Feature 36	85	20.3	8.5
221	Feature 36	90	21.2	10.5
234	Feature 36	120	21.7	8.6
238	Feature 36	100		8.2
241	Feature 36	87	20	10
245	Feature 36	90	17.3	8.8
255	Feature 95	50	21.3	10
256	Feature 95	170	25.5	
264	Feature 101	0	18	6.5
265	Feature 101	0		
269	Feature 101	110	17.4	10.6
281	Feature 101	170	17.9	6.3
284	Feature 119	85	16.6	9.5
285	Feature 162			
286	Feature 162	160	15.1	11.5
287	Feature 162	85		7.3
288	Feature 194		17.7	11.9
289	Feature 196	140	20.2	7
290	Feature 359	95	21.3	11.5
296	Feature 500	15	22.3	4.7
297	Feature 500	85	21.3	7.5
305	Feature 588	50	20.4	8
307	Feature 702	80	14.5	8.5
308	Feature 880	65	21.9	8.4
Minimum		**0**	**13.3**	**3.5**
Average		**90.525**	**20.1**	**8.6**
Maximum		**175**	**39.8**	**17**
TOTAL	**83**	**80**	**75**	**75**

Table 32. Textile Attributes Derived from Cast Analysis of Fabric Impressed Ceramics from the Rutherford-Kizer site, 40SU15.

			FABRIC										WARP						WEFT						OTHER							
ID#	TS#	PROV.	FTS	FT SC	FT D	FT TA	FC	FCI	FCI #1	FCI #2	FCI #3	FD	Wp C	Wp Dm	Wp D	Wp Ply	Wp TD	Wp TA	Wt Rw	Wt RwDm	Wt D	Wt C	Wt Ydm	Wt Ply	AvY Dm	GW BR	GW BW	GW BS	TI WS	C	O	STh
1	1	Gen. Surf.	PT	1	S	3	8.2	2	3	5	7	7.92	5	1.2	6	2	S	2	1.6	1.2	1.92	3.2	1	2	1.1					3		8.7
2	2	Gen. Surf.	APTgw	2	S	2	10.6	3	5	7	9	11.96	4	2	8	2	S	2	3.3	1.2	3.96	6.6	1	2	1.5	2	0.24	0.4		3		7.8
3	3	Gen. Surf.	PT	1	S	2	4.9	1	2	4	6	5.42	3.3	1.4	4.62	2	S	2	0.8	1	0.8	1.6	0.8	2	1.1					4		11.7
4	4	Gen. Surf.	PT	1	S	3	7.6	2	3	5	8	7.82	5	1.2	6	2	S	3	1.3	1.4	1.82	2.6	1.2	2	1.2					3		8.3
5	5	Gen. Surf.	PT	1	S	3	7.8	2	3	5	8	6.96	5	1	5	2	S	3	1.4	1.4	1.96	2.8	1.2	2	1.1					3		14.4
6	6	Gen. Surf.	CAPT	1	S	3	17.2	4	5	7	9	16.96	8	1.2	9.6	2	S	2	4.6	1.6	7.36	9.2	1.2	2	1.2					3		8.8
7	7	Gen. Surf.	CAPT	1	S	3	13.4	3	4	7	9	14.48	8	1	8	2	S	2	2.7	2.4	6.48	5.4	2	2	1.5					4		
8	8	Gen. Surf.	CAPT	1	S	3	16	4	5	7	9	16	8	1	8	2	S	2	4	2	8	8	1.4	2	1.2					4		8.6
9	9	Gen. Surf.	CAPT	1	S	3	12	3	4	6	8	12	6	1	6	2	S	2	3	2	6	6	1.4	2	1.2					4		
10	10	Gen. Surf.	APTgw	2	S	3	11	3	5	7	10	12.6	8	1.2	9.6	2	S	3	1.5	2	3	3	1.4	2	1.3	2	0.5	0.8		4		10.1
11	11	Gen. Surf.	APTgw	2	S	2	6.4	2	4	6	8	7.04	3.2	1.4	4.48	2	S	2	1.6	1.6	2.56	3.2	1.4	2	1.4	2	0.34	0.85		4		9.3
12*	12	Gen. Surf.	PT	1	S	3	10	3	4	6	8	9	5	1.2	6	2	S	2	2.5	1.2	3	5	1	2	1.1					3	OLP	15.8
13*	13	Gen. Surf.	PT	1	S	2	3.4	1	2	4	6	7.82	2	3	6	2	S	2	0.7	2.6	1.82	1.4	2	2	2.5					3	OLP	
14	14	Gen. Surf.	PT	1	S	3	5.8	2	3	5	7	7.04	4	1.4	5.6	2	S	2	0.9	1.6	1.44	1.8	1.2	2	1.3					2		6.5
15	14	Gen. Surf.	PT	1	S	3	6.2	2	3	5	7	6.7	4	1.4	5.6	2	S	2	1.1	1	1.1	2.2	0.8	2	1.1					4		7
16	15	Gen. Surf.	PT	1	S	3	5.7	2	3	5	7	4.98	3.3	1	3.3	2	S	2	1.2	1.4	1.68	2.4	1	2	1					4		10
17	16	Gen. Surf.	PT	1	S	3	14	3	4	6	8	12	6	1.2	7.2	2	S	2	4	1.2	4.8	8	1	2	1.1					3		7.1
18	1	Gen. Surf.	PT	1	S	3	9.2	2	3	5	7	8.88	5.6	1.2	6.72	2	S	2	1.8	1.2	2.16	3.6	1	2	1.1					4		12.1
19	1	Gen. Surf.	PT	1	S	3	8.8	2	3	5	7	8.64	5.6	1.2	6.72	2	S	2	1.6	1.2	1.92	3.2	1	2	1.1					4		9
20	17	Gen. Surf.	PT	1	S	3	15	4	5	6.5	9.5	10.8	8	1	8	2	S	3	3.5	0.8	2.8	7	0.6	1	0.8					3		12
21	9	Gen. Surf.	CAPT	1	S	4	12.4	3	4	5.5	6.5	11.2	6	0.8	4.8	1		1	3.2	2	6.4	6.4	1.6	2	1.2					4		9
22	9	Gen. Surf.	CAPT	1	S	4	12	3	4	6	9	10.8	6	0.8	4.8	2	S	3	3	2	6	6	1.6	2	1.2					4		14
23	18	Gen. Surf.	CPT	1	S	3	14	3	4	6	8	13.6	6	1.2	7.2	2	S	2	4	1.6	6.4	8	1.2	2	1.2					3		9
24	19	Gen. Surf.	PT	1	S	3	5.4	2	3	5	6	6.58	4	1.4	5.6	2	S	1	0.7	1.4	0.98	1.4	1	2	1.2					2		12.2
25	20	Gen. Surf.	PT	1	S	3	6.4	2	3	5	7	7.76	4	1.4	5.6	2	S	2	1.2	1.8	2.16	2.4	1.4	2	1.4					4		11
26	21	Gen. Surf.	PTgw	2	S	3	5.2	2	4	6	8	6.28	3.2	1.4	4.48	2	S	2	1	1.8	1.8	2	1.4	2	1.4	3	0.56	2.6		3		11.4
27	22	Gen. Surf.	CAPT	1	S	3	17	4	5	6.5	9.5	18.72	8.6	1.2	10.32	2	S	3	4.2	2	8.4	8.4	1.6	1	1.4					4		10
28	4	Gen. Surf.	PT	1	S	3							5	1.2	6	2	S	3					1.2		1.2					2		
29		Gen. Surf.	Und																											0		6.9
30	14	Gen. Surf.	PT	1	S	3	5.8	2	3	5	7	7.04	4	1.4	5.6	2	S	2	0.9	1.6	1.44	1.8	1.2	2	1.3					4		12.9
31	23	Gen. Surf.	PT	1	S	3	4.8	1	2	4	7	8.4	3	2.2	6.6	2	S	3	0.9	2	1.8	1.8	1.8	2	2					4		

Table 32. Textile Attributes Derived from Cast Analysis of Fabric Impressed Ceramics from the Rutherford-Kizer site, 40SU15 (continued).

			FABRIC										WARP						WEFT						OTHER							
ID#	TS#	PROV.	FTS	FT SC	FT D	FT TA	FC	FCI	FCI #1	FCI #2	FCI #3	FD	Wp C	Wp Dm	Wp D	Wp Ply	Wp TD	Wp TA	Wt Rw	Wt RwDm	Wt D	Wt C	Wt Ydm	Wt Ply	AvY Dm	GW BR	GW BW	GW BS	TI WS	C	O	STh
32	14	Gen. Surf.	PT	1	S	3	6.6	2	3	5	7	7.44	5	1.2	6	2	S	2	0.8	1.8	1.44	1.6	1.6	2	1.4					4		11.4
33	14	Gen. Surf.	PT	1	S	3	7	2	3	5	7	8.2	5	1.4	7	2	S	2	1	1.2	1.2	2	1	2	1.2					0		6.1
34	24	Gen. Surf.	APT	1	S	3	6.3	2	3	5	7	8.02	4.3	1.4	6.02	2	S	2	1	2	2	2	1.6	2	1.5					4		8.5
35	25	Gen. Surf.	CAPT	1	S	3	21.8	5	6	8	10	16.36	11	0.8	8.8	2	S	2	5.4	1.4	7.56	10.8	1	2	0.9					4		
36	26	Gen. Surf.	PT	1	S	3	9	2	3	5	8	7	5	1	5	2	S	3	2	1	2	4	0.8	2	0.9					3		13.8
37	27	Gen. Surf.	CAPT	1	S	3	15	4	5	7	9	15	6	1	6	2	S	2	4.5	2	9	9	1.4	2	1.2					3		9
38	28	Gen. Surf.	CAPT	1	S	3	19	4	5	6.5	7.5	15.4	7	1	7	1		1	6	1.4	8.4	12	1.2	2	1.1					4		10.5
39	29	Gen. Surf.	PT	1	S	3	10	3	4	6	8	9.6	6	1.2	7.2	2	S	2	2	1.2	2.4	4	1	2	1.1					3		11.5
40	30	Gen. Surf.	PTgw	2	S	3	8	2	4	6	8	6.4	4	1	4	2	S	2	2	1.2	2.4	4	1	2	1	2	0.5	0.6		3		12
41	31	Gen. Surf.	PT	1	S	3	10.2	3	4	6	9	8.92	7	1	7	2	S	3	1.6	1.2	1.92	3.2	1	2	1					3		12.4
42	32	Gen. Surf.	PT	1	S	3	6	2	3	5	8	5.4	4	1	4	2	S	3	1	1.4	1.4	2	1.2	2	1.1					4		11.3
43	33	Gen. Surf.	CAPT	1	S	3	16	4	5	7	10	12	8	0.8	6.4	2	S	3	4	1.4	5.6	8	1.2	2	1					3		11.7
44	34	Gen. Surf.	PT	1	S	2	6.6	2	3	5	7	6.6	4	1	4	2	S	2	1.3	2	2.6	2.6	1.6	2	1.3					3		8.4
45	35	Gen. Surf.	CAPT	1	S	3	14	3	4	6	9	13.4	8	1	8	2	S	3	3	1.8	5.4	6	1.6	2	1.3					3		9.5
46	36	Gen. Surf.	PT	1	S	3	6.6	2	3	5	8	7.68	4	1.4	5.6	2	S	3	1.3	1.6	2.08	2.6	1.4	2	1.4					3		13.3
47	37	Gen. Surf.	CAPT	1	S	3	14	3	4	6	8	12.6	7	1	7	2	S	2	3.5	1.6	5.6	7	1.4	2	1.2					4		9
48	38	Gen. Surf.	CAPT	1	S	3	17.2	4	5	6.5	7.5	15.36	8	1	8	1		1	4.6	1.6	7.36	9.2	1.2	2	1.1					4		9.7
49	39	Gen. Surf.	PTdw	2	S	3	9.4	2	4	6	9	9.08	5	1.2	6	2	S	3	2.2	1.4	3.08	4.4	1.2	2	1.2					4		8.8
50	40	Gen. Surf.	APT	1	S	3	6.6	2	3	5	8	6.6	5	1	5	2	S	3	0.8	2	1.6	1.6	1.6	2	1.3					4		9
51	41	Gen. Surf.	PT	1	S	2	10	3	4	6	9	9.6	6	1.2	7.2	2	S	3	2	1.2	2.4	4	1	2	1.1					3		17.1
52	42	Gen. Surf.	CAPT	1	S	3	17	4	5	6.5	7.5	14.5	8	0.8	6.4	1		1	4.5	1.8	8.1	9	1.4	2	1.1					4		8.7
53	43	T U 1, L2	PT	1	S	3							8	0.8	6.4	2	S	2		1.2			1	2	0.9					0		7.6
54	44	T U 1, L2	PT	1	S	3	7	2	3	5	7	6.6	6	1	6	2	S	2	0.5	1.2	0.6	1	1	2						0		8.2
55	45	T U 1, L2	PT	1	S	3	6	2	3	5	7	6	4	1.2	4.8	2	S	2	1	1.2	1.2	2	1	2	1.1					3		11.8
56	46	T U 2, L1	CAPT	1	S	3	13.5	3	4	5.5	6.5	13.5	7.5	1	7.5	1		1	3	2	6	6	1.4	2	1.2					4		7.8
57	47	T U 2, L1	PT	1	S	3	6.6	2	3	4.5	5.5	6.9	4	1.4	5.6	1	Z	1	1.3	1	1.3	2.6	0.8	2	1.1					4		5.5
58		T U 2, L1	Tu										4	1.4	5.6	2	S	2												0		6.5
59	48	T U 2, L1	CAPT	1	S	3	18	4	5	7	9	17.2	10	1	10	2	S	2	4	1.8	7.2	8	1.2	2	1.1					3		6.5
60	49	T U 2, L1	CAPT	1	S	3	16	4	5	6.5	7.5	17.6	8	1.2	9.6	1		1	4	2	8	8	1.4	2	1.3					4		5.8
61	50	T U 2, L1	PT	1	S	3	5.9	2	3	5	7	9.2	3.3	2	6.6	2	S	2	1.3	2	2.6	2.6	1.6	2	1.8					4		8.7
62	47	T U 2, L1	PT	1	S	3	6.5	2	3	4.5	5.5	6.7	3.5	1.4	4.9	1	Z	1	1.5	1.2	1.8	3	1	2	1.2					3		

Table 32. Textile Attributes Derived from Cast Analysis of Fabric Impressed Ceramics from the Rutherford-Kizer site, 40SU15 (continued).

			FABRIC										WARP						WEFT						OTHER							
ID#	TS#	PROV.	FTS	FT SC	FT D	FT TA	FC	FCI	FCI #1	FCI #2	FCI #3	FD	Wp C	Wp Dm	Wp D	Wp Ply	Wp TD	Wp TA	Wt Rw	Wt RwDm	Wt D	Wt C	Wt Ydm	Wt Ply	AvY Dm	GW BR	GW BW	GW BS	TI WS	C	O	STh
63	51	T U 2, L1	PT	1	S	3	4.9	1	2	4	6	5.74	3.3	1.4	4.62	2	S	2	0.8	1.4	1.12	1.6	1.2	2	1.3					4		7
64	52	T U 2, L1	APT	1	S	2	3.4	1	2	4	7	7.82	2	3	6	2	Z	3	0.7	2.6	1.82	1.4	2	2	2.5					4		11.2
65	53	T U 2, L1	APT	1	S	2	8.2	2	3	5	8	10.2	5	1.4	7	2	S	3	1.6	2	3.2	3.2	1.4	2	1.4					3		6.5
66	54	T U 2, L1	CAPT	1	S	3	15.6	4	5	7	10	13.88	7	1	7	2	S	3	4.3	1.6	6.88	8.6	1.2	2	1.1					4		11.5
67	54	T U 2, L1	CAPT	1	S	3													4	1.6	6.4	8	1.2	2						0		11.7
68		T U 3, L1	Tu																											0		12
69	55	Fill, SB-A	PT	1	S	3	7.1	2	3	5	7	6.38	5.3	1	5.3	2	S	2	0.9	1.2	1.08	1.8	1	2	1					4		8.3
70	56	Fill, SB-A	PT	1	S	3	8	2	3	5	8	9.92	4.4	1.6	7.04	2	S	3	1.8	1.6	2.88	3.6	1.4	2	1.5					4		9.8
71	57	Fill, SB-B	PT	1	S	3	7.1	2	3	5	7	8.64	4.5	1.4	6.3	2	S	2	1.3	1.8	2.34	2.6	1.4	2	1.4					2		10
72	58	Fill, SB-B	APT	1	S	3	11	3	4	6	8	9.8	7	1	7	2	S	2	2	1.4	2.8	4	1.2	2	1.1					3		6.5
73	59	Fill, SB-B	PT	1	S	3	10.6	3	4	6	8	8.76	6	1	6	2	S	2	2.3	1.2	2.76	4.6	0.8	2	0.9					3		10.6
74	60	Fill, SB-B	PT	1	S	3	7	2	3	5	7	6.28	5.2	1	5.2	2	S	2	0.9	1.2	1.08	1.8	1	2	1					4	OLY	7.1
75	61	Fill, SB-B	PT	1	S	2	8.4	2	3	4.5	5.5	6.64	4	1	4	1		1	2.2	1.2	2.64	4.4	1	2	1					0		6
76	62	Fill, SB-B	CAPT	1	S	3	15	4	5	7	9	12	8	0.8	6.4	2	S	2	3.5	1.6	5.6	7	1.2	2	1					4		7.9
77	62	Fill, SB-B	CAPT	1	S	3	16	4	5	7	9	12	8	0.8	6.4	2	S	2	4	1.4	5.6	8	1.2	2	1					3		10.2
78	63	Fill, SB-B	CAPT	1	S	2	12.8	3	4	6	8	12.88	6.6	1.2	7.92	2	S	2	3.1	1.6	4.96	6.2	1.4	2	1.3					3		10.3
79		Fill, SB-B	Und																											0		9.3
80	64	Fill, SB-B	CAPT	1	S	3	8	2	3	5	7	11.6	4	1.6	6.4	2	S	2	2	2.6	5.2	4	1.6	2	1.6					0		9.6
81	65	Fill, SB-B	PT	1	S	3	14	3	4	6	8	8.8	8	0.8	6.4	2	S	2	3	0.8	2.4	6	0.6	2	0.7					3		9.9
82	64	Fill, SB-B	CAPT	1	S	3	8	2	3	5	7	11.6	4	1.6	6.4	2	S	2	2	2.6	5.2	4	1.6	2	1.6					4		9.5
83	66	Fill, SB-B	APTgw	2	S	3	8	2	4	6	8	7.4	5	1	5	2	S	2	1.5	1.6	2.4	3	1.2	2	1.1	2	0.3	1		4		7.4
84	67	Fill, SB-B	APT	1	S	3	10	3	4	6	9	11.2	8	1.2	9.6	2	S	3	1	1.6	1.6	2	1.2	2	1.2					4		9.9
85	58	Fill, SB-B	APT	1	S	3	12.4	3	4	6	8	11.08	8	1	8	2	S	2	2.2	1.4	3.08	4.4	1.2	2	1.1					4		9.4
86	66	Fill, SB-B	APTgw	2	S	3	7.6	2	4	6	8	7.08	5	1	5	2	S	2	1.3	1.6	2.08	2.6	1.2	2	1.1	2	0.3	1		4		7.6
87	68	Fill, SB-B	PTgw	2	S	3	6.8	2	4	6	8	7.84	4.4	1.4	6.16	2	S	2	1.2	1.4	1.68	2.4	1.2	2	1.3	2	0.6	1		3		11.3
88	69	Fill, SB-B	PT	1	S	2	8	2	3	5	7	8	4	1.4	5.6	2	S	2	2	1.2	2.4	4	1	2	1.2					3		9.9
89	70	Fill, SB-B	PT	1	S	3	9	2	3	4.5	6.5	8.4	5	1.2	6	2	S	2	2	1.2	2.4	4	1	1	1.1					3		
90	63	Fill, SB-B	CAPT	1	S	2							6						3	1.6	4.8	6	1.4	2						0		11.5
91		Fill, SB-C	Tu	1	S	2								1.2		2	S	2		1.4			1.2	2	1.2					0		8
92	71	Fill, F20/36	CAPT	1	S	3	17	4	5	6.5	7.5	13.6	8	0.8	6.4	1		1	4.5	1.6	7.2	9	1.2	2	1					4		9.7
93	72	Fill, F20/36	PT	1	S	3	7.5	2	3	5	7	7.5	4.5	1.2	5.4	2	S	2	1.5	1.4	2.1	3	1.2	2	1.2					3		18.2

Table 32. Textile Attributes Derived from Cast Analysis of Fabric Impressed Ceramics from the Rutherford-Kizer site, 40SU15 (continued).

			FABRIC										WARP						WEFT						OTHER							
ID#	TS#	PROV.	FTS	FT SC	FT D	FT TA	FC	FCI	FCI #1	FCI #2	FCI #3	FD	Wp C	Wp Dm	Wp D	Wp Ply	Wp TD	Wp TA	Wt Rw	Wt RwDm	Wt D	Wt C	Wt Ydm	Wt Ply	AvY Dm	GW BR	GW BW	GW BS	TI WS	C	O	STh
94	73	Fill, F20/36	Ct	1	S	2													7	1.2	8.4	14	1	2						4		
95	74	Fill, F20/36	CAPT	1	S	3	19	4	5	7	9	14.2	9	0.8	7.2	2	S	2	5	1.4	7	10	1	2	0.9					3		10
96	75	Fill, F20/36	APTgw	2	S	3	8.7	2	4	6	8	9.48	5.5	1.2	6.6	2	S	2	1.6	1.8	2.88	3.2	1.4	2	1.3	2	0.5	0.5		4		
97	76	Fill, F20/36	PT	1	S	2	8	2	3	5	7	6.5	5	1	5	2	S	2	1.5	1	1.5	3	0.8	2	0.9					3		8.8
98	77	P S B2	PT	1	S	2	6	2	3	5	7	6.8	4	1.2	4.8	2	S	2	1	2	2	2	1.6	2	1.4					4		11.3
99		P S B4	Tu										4						1.3											0		6.5
100	78	P S C2	PT	1	S	2	8	2	3	5	7	7.2	4	1.2	4.8	2	S	2	2	1.2	2.4	4	1	2	1.1					3		10.5
101	79	P S C2	PT	1	S	2	6.4	2	3	5	7	5.44	4	1	4	2	S	2	1.2	1.2	1.44	2.4	1	2	1					3		10.8
102	78	P S C3	PT	1	S	2	8	2	3	5	7	7.2	4	1.2	4.8	2	S	2	2	1.2	2.4	4	1	2	1.1					3		
103	80	P S C3	APT	1	S	3	6	2	3	5	7	6.2	4	1.2	4.8	2	S	2	1	1.4	1.4	2	1.2	2	1.2					2		12.1
104	81	P S D7	CAPT	1	S	3	11	3	4	6	8	11.2	6	1.2	7.2	2	S	2	2.5	1.6	4	5	1.4	2	1.3					4		8.6
105	82	P S E2	PT	1	S	2	8	2	3	5	7	8.1	5	1.2	6	2	S	2	1.5	1.4	2.1	3	1.2	2	1.2					3		6.6
106	83	P S E3	Ct	1	S	2													4	1.4	5.6	8	1.2	2						4		11.5
107	84	P S E5	PT	1	S	3	6	2	3	5	7	8	4	1.6	6.4	2	S	2	1	1.6	1.6	2	1.2	2	1.4					4		9.7
108	85	P S E6	PT	1	S	2	9.4	2	3	5	7	8.38	5	1.2	6	2	S	2	1.7	1.4	2.38	3.4	1.2	2	1.2					4		7.9
109	86	P S F2	APT	1	S	3	9.6	2	3	5	7	11.28	6	1.4	8.4	2	S	2	1.8	1.6	2.88	3.6	1.4	2	1.4					4		7.1
110		P S G6	LYP										3.6	1.6	5.76	2	S	2												1		12.9
111	87	BHT-A	PT	1	S	2	6.4	2	3	5	7	6.24	4	1.2	4.8	2	S	2	1.2	1.2	1.44	2.4	1	2	1.1					4		11
112	88	BHT-A	CAPT	1	S	2	17	4	5	6.5	7.5	14	7	1	7	1		1	5	1.4	7	10	1.2	2	1.1					4		13.7
113	89	BHT-A	PT	1	S	2	7.6	2	3	5	7	6.6	4	1.2	4.8	2	S	2	1.8	1	1.8	3.6	0.8	2	1					4		11.3
114	90	BHT-K	CAPT	1	S	3	11	3	4	6	8	11	6	1	6	2	S	2	2.5	2	5	5	1.4	2	1.2					4		8.4
115	91	BHT-K	CAPT	1	S	2	10.8	3	4	6	8	10.24	8	1	8	2	S	2	1.4	1.6	2.24	2.8	1.4	2	1.2					3		9.1
116	92	BHT-K	PT	1	S	2	8	2	3	5	7	6.8	4	1	4	2	S	2	2	1.4	2.8	4	1	2	1					3		9.4
117	93	BHT-K	APT	1	S	2	11.4	3	4	6	8	10.86	6	1	6	2	S	2	2.7	1.8	4.86	5.4	1.4	2	1.2					3		10.2
118	94	BHT-K	CAPT	1	S	3	16.1	4	5	6.5	7.5	14.34	7.3	1	7.3	1		1	4.4	1.6	7.04	8.8	1.4	2	1.2					4		9.5
119	95	BHT-K	PT	1	S	3	3.9	1	2	4	6	9.32	2.5	3	7.5	2	S	2	0.7	2.6	1.82	1.4	2.2	2	2.6					3		9.5
120	96	BHT-K	APTgw	2	S	3	10.8	3	5	7	9	9.28	7	1	7	2	S	2	1.9	1.2	2.28	3.8	1	2	1	2	0.4	0.6		3		7.6
121	95	BHT-K	PT	1	S	3	3.9	1	2	4	6	9.12	2.7	2.8	7.56	2	S	2	0.6	2.6	1.56	1.2	2.2	2	2.5					4		15
122		BHT-K	Tu																											0		7.8
123	90	BHT-K	CAPT	1	S	3	11.2	3	4	6	8	11.2	6	1	6	2	S	2	2.6	2	5.2	5.2	1.4	2	1.2					3		8.5
124	96	BHT-K	APTgw	2	S	3	11	3	5	7	9	9.4	7	1	7	2	S	2	2	1.2	2.4	4	1	2	1	2	0.4	0.6		4		10

Table 32. Textile Attributes Derived from Cast Analysis of Fabric Impressed Ceramics from the Rutherford-Kizer site, 40SU15 (continued).

			FABRIC										WARP						WEFT						OTHER							
ID#	TS#	PROV.	FTS	FT SC	FT D	FT TA	FC	FCI	FCI #1	FCI #2	FCI #3	FD	Wp C	Wp Dm	Wp D	Wp Ply	Wp TD	Wp TA	Wt Rw	Wt RwDm	Wt D	Wt C	Wt Ydm	Wt Ply	AvY Dm	GW BR	GW BW	GW BS	TI WS	C	O	STh
125	96	BHT-K	APTgw	2	S	3	10.6	3	5	7	9	9.52	7	1	7	2	S	2	1.8	1.4	2.52	3.6	1	2	1	2	0.4	0.6		4		10.2
126	95	BHT-K	PT	1	S	3	3.9	1	2	4	6	9.32	2.5	3	7.5	2	S	2	0.7	2.6	1.82	1.4	2.4	2	2.7					4		9.5
127	95	BHT-K	PT	1	S	3	3.9	1	2	4	6	9.32	2.5	3	7.5	2	S	2	0.7	2.6	1.82	1.4	2.4	2	2.7					4		9.5
128	95	BHT-K	PT	1	S	3	3.9	1	2	4	6	9.32	2.5	3	7.5	2	S	2	0.7	2.6	1.82	1.4	2.4	2	2.7					4		9.5
129	95	BHT-K	PT	1	S	3	3.9	1	2	4	6	9.32	2.5	3	7.5	2	S	2	0.7	2.6	1.82	1.4	2.4	2	2.7					4		9.5
130	95	BHT-K	PT	1	S	3	3.8	1	2	4	6	9.02	2.4	3	7.2	2	S	2	0.7	2.6	1.82	1.4	2.4	2	2.7					4		9
131	95	BHT-K	PT	1	S	3	3.9	1	2	4	6	9.32	2.5	3	7.5	2	S	2	0.7	2.6	1.82	1.4	2.4	2	2.7					4		9.5
132	97	BHT-K	PT	1	S	2	6.4	2	3	5	7	6.48	4	1.2	4.8	2	S	2	1.2	1.4	1.68	2.4	1.2	2	1.2					3		9.5
133	90	BHT-K	CAPT	1	S	3	13	3	4	5.5	6.5	11.6	6	1	6	1		1	3.5	1.6	5.6	7	1.4	2	1.2					4		7
134	98	BHT-K	PT	1	S	2	6.4	2	3	5	7	6.48	4	1.2	4.8	2	S	2	1.2	1.4	1.68	2.4	1	2	1.1					3		9.4
135	99	BHT-K	APTgw	2	S	2	5.8	2	4	6	8	9.52	3.2	2	6.4	2	S	2	1.3	2.4	3.12	2.6	2	2	2	2	0.5	1		4		6.5
136	100	BHT-K	PT	1	S	2	6	2	3	5	7	5.2	4	1	4	2	S	2	1	1.2	1.2	2	1	2	1					3		6.2
137	101	Bur. 39	Ci	1			15	4	5	6.5	7.5		6			1		1	9	1	9	9	1	2						4		8.9
138	102	Struc. 5	APTtiw	2	S	2	8	2	4	6	8	8.1	5	1.2	6	2	S	2	1.5	1.4	2.1	3	1.2	2	1.2				0.2	3		8.1
139	103	Fea. 12	PT	1	S	2	13	3	4	6	8	10.6	5	1	5	2	S	2	4	1.4	5.6	8	1	2	1					3	OLY	8.6
140	104	Fea. 12	PT	1	S	3	6	2	3	5	7	7.2	4	1.4	5.6	2	S	2	1	1.6	1.6	2	1.2	2	1.3					3		9.3
141	105	Fea. 14	PT	1	S	2	8.4	2	3	5	7	8.64	6	1.2	7.2	2	S	2	1.2	1.2	1.44	2.4	1	2	1.1					3		6.8
142	106	Fea. 14	APTtiw	2	S	2	8.4	2	4	6	8	7.68	6	1	6	2	S	2	1.2	1.4	1.68	2.4	1.2	2	1.1				0.16	3		7.8
143	107	Fea. 20	APTgw	2	S	2	9.6	2	4	6	8	10.08	6	1.2	7.2	2	S	2	1.8	1.6	2.88	3.6	1.2	2	1.2	2	0.5	0.5		3		8.9
144	108	Fea. 20	APT	1	S	2	8	2	3	5	7	8.8	6	1.2	7.2	2	S	2	1	1.6	1.6	2	1.2	2	1.2					1		6.9
145	108	Fea. 20	APT	1	S	2	8	2	3	5	7	8.8	6	1.2	7.2	2	S	2	1	1.6	1.6	2	1.2	2	1.2					1		9.8
146	108	Fea. 20	APT	1	S	2	7.3	2	3	5	7	7.96	5.3	1.2	6.36	2	S	2	1	1.6	1.6	2	1.2	2	1.2					1		10.5
147	109	Fea. 20	APTgw	2	S	2	8.6	2	4	6		8.08	6	1	6	2	S	2	1.3	1.6	2.08	2.6	1.4	2	1.2	2	0.56	0.8		3		9
148	110	Fea. 20	PTtiw	2	S	2	11	3	5	7	9	9	6	1	6	2	S	2	2.5	1.2	3	5	1	2	1				0.16	3		5.5
149	110	Fea. 20	PTtiw	2	S	2	11	3	5	7	9	9	6	1	6	2	S	2	2.5	1.2	3	5	1	2	1				0.16	3		5
150	110	Fea. 20	PTtiw	2	S	2							6	1	6	2	S	2		1.2			1	2	1				0.16	0		5.6
151	111	Fea. 20	CAPT	1	S	3	14	3	4	6	8	7.6	6	1.2	7.2	2	S	2	4	1.6	6.4	8	1.2	2	1.2					3		8.3
152	112	Fea. 20	PT	1	S	3	9.6	2	3	5	7	9.36	6	1.2	7.2	2	S	2	1.8	1.2	2.16	3.6	1	2	1.1					4		7.4
153*	113	Fea. 20	CAPT	1	S	2	21	5	6	8	10	15.4	7	1	7	2	S	2	7	1.2	8.4	14	1	2	1					4	OLP	
154*	114	Fea. 20	APTgw	2	S	2	14	3	5	7	9	11.6	8	1	8	2	S	2	3	1.2	3.6	6	1	2	1	2	0.24	0.4		4	OLP	
155*	115	Fea. 20	APTgw	2	S	2	11	3	5	7	9	9.8	7	1	7	2	S	2	2	1.4	2.8	4	1.2	2	1.1	2	0.5	0.5		4	OLP	7.7

Table 32. Textile Attributes Derived from Cast Analysis of Fabric Impressed Ceramics from the Rutherford-Kizer site, 40SU15 (continued).

			FABRIC										WARP						WEFT						OTHER						
ID#	TS#	PROV.	FTS	FT SC	FT D	FT TA	FC	FCI	FCI #1	FCI #2	FCI #3	FD	Wp C	Wp Dm	Wp D	Wp Ply	Wp TD	Wp TA	Wt Rw	Wt RwDm	Wt D	Wt C	Wt Ydm	Wt Ply	AvY Dm	GW BR	GW BW	GW BS	TI WS	C	O	STh
156	110	Fea. 20	PTtiw	2	S	2	11	3	5	7	9	9	6	1	6	2	S	2	2.5	1.2	3	5	1	2	1				0.16	3		10.1
157	110	Fea. 20	PTtiw	2	S	2	11	3	5	7	9	9	6	1	6	2	S	2	2.5	1.2	3	5	1	2	1				0.16	3		8.9
158	110	Fea. 20	PTtiw	2	S	2	11	3	5	7	9	7.2	6	1	6	2	S	2	2.5	1.2	3	5	1	2	1				0.16	4		8.9
159	110	Fea. 20	PTtiw	2	S	2	11	3	5	7	9	9	6	1	6	2	S	2	2.5	1.2	3	5	1	2	1				0.16	3		9.8
160	110	Fea. 20	PTtiw	2	S	2	10.1	3	5	7	9	8.26	5.5	1	5.5	2	S	2	2.3	1.2	2.76	4.6	1	2	1				0.16	3		10.1
161	110	Fea. 20	PTtiw	2	S	2	11	3	5	7	9	9	6	1	6	2	S	2	2.5	1.2	3	5	1	2	1				0.16	3		6.6
162	110	Fea. 20	PTtiw	2	S	2	10.6	3	5	7	9	8.76	6	1	6	2	S	2	2.3	1.2	2.76	4.6	1	2	1				0.16	3		10.9
163	110	Fea. 20	PTtiw	2	S	2	10.8	3	5	7	9	8.88	6	1	6	2	S	2	2.4	1.2	2.88	4.8	1	2	1				0.16	4		5.1
164	110	Fea. 20	PTtiw	2	S	2	10.8	3	5	7	9	8.4	6	1	6	2	S	2	2.4	1	2.4	4.8	1	2	1				0.16	3		5.3
165	110	Fea. 20	PTtiw	2	S	2	10.8	3	5	7	9	8.4	6	1	6	2	S	2	2.4	1	2.4	4.8	1	2	1				0.16	4		9.5
166	110	Fea. 20	PTtiw	2	S	2	10.8	3	5	7	9	8.4	6	1	6	2	S	2	2.4	1	2.4	4.8	1	2	1				0.16	3		8.5
167	110	Fea. 20	PTtiw	2	S	2	10.4	3	5	7	9	8.56	5.8	1	5.8	2	S	2	2.3	1.2	2.76	4.6	1	2	1				0.16	4		5.1
168	110	Fea. 20	PTtiw	2	S	2	10.8	3	5	7	9	8.88	6	1	6	2	S	2	2.4	1.2	2.88	4.8	1	2	1				0.16	4		8.6
169	114	Fea. 20	APTgw	2	S	2	14.6	3	5	7	9	11.96	8	1	8	2	S	2	3.3	1.2	3.96	6.6	1	2	1	2	0.24	0.4		3		7.7
170	114	Fea. 20	APTgw	2	S	2	14	3	5	7	9	11.6	8	1	8	2	S	2	3	1.2	3.6	6	1	2	1	2	0.24	0.4		3		8.2
171	107	Fea. 20	APTgw	2	S	2	9.6	2	4	6	8	10.08	6	1.2	7.2	2	S	2	1.8	1.6	2.88	3.6	1.2	2	1.2	2	0.6	0.5		3		9.4
172	107	Fea. 20	APTgw	2	S	2	9.6	2	4	6	8	10.08	6	1.2	7.2	2	S	2	1.8	1.6	2.88	3.6	1.2	2	1.2	2	0.6	0.5		3		9.9
173	114	Fea. 20	APTgw	2	S	2	14	3	5	7	9	11.6	8	1	8	2	S	2	3	1.2	3.6	6	1	2	1	2	0.24	0.36		3		9.4
174	116	Fea. 20	CAPT	1	S	2	17	4	5	6	7	15	7	1	7	1		1	5	1.6	8	10	1.4	1	1.2					0		11
175	116	Fea. 20	CAPT	1	S	2	17	4	5	6	7	15	7	1	7	1		1	5	1.6	8	10	1.4	1	1.2					0		11
176	117	Fea. 20	PT	1	S	2	6.5	2	3	5	7	7.9	4.5	1.4	6.3	2	S	2	1	1.6	1.6	2	1.4	2	1.4					3		10
177	118	Fea. 20	PT	1	S	3	4.1	1	2	4	6	9.92	2.7	3	8.1	2	S	2	0.7	2.6	1.82	1.4	2	2	2.5					4		12.6
178	119	Fea. 20	PTdw	2	S	3	4.4	1	3	5	7	6.24	2.4	1.6	3.84	2	S	2	1	2.4	2.4	2	2	2	1.8					4		12.2
179	120	Fea. 20	PTgw	2	S	3	9.4	2	4	6	8	8.04	6	1	6	2	S	2	1.7	1.2	2.04	3.4	1	2	1	2	0.4	0.7		4		4.2
180	120	Fea. 20	PTgw	2	S	3	8.5	2	4	6	8	7.3	5.5	1	5.5	2	S	2	1.5	1.2	1.8	3	1	2	1	2	0.46	0.76		4		6
181	120	Fea. 20	PTgw	2	S	3	9.2	2	4	6	8	7.92	6	1	6	2	S	2	1.6	1.2	1.92	3.2	1	2	1	2	0.34	0.54		4		5.2
182	120	Fea. 20	PTgw	2	S	3	9.6	2	4	6	8	8.16	6	1	6	2	S	2	1.8	1.2	2.16	3.6	1	2	1	2	0.36	0.64		4		5.1
183	120	Fea. 20	PTgw	2	S	3	9.2	2	4	6	8	7.92	6	1	6	2	S	2	1.6	1.2	1.92	3.2	1	2	1	2	0.38	0.82		4		6.6
184	120	Fea. 20	PTgw	2	S	3	9.2	2	4	6	8	7.92	6	1	6	2	S	2	1.6	1.2	1.92	3.2	1	2	1	2	0.46	0.42		4		6.9
185	120	Fea. 20	PTgw	2	S	3	9.4	2	4	6	8	8.04	6	1	6	2	S	2	1.7	1.2	2.04	3.4	1	2	1	2	0.32	0.6		4		5.9
186	120	Fea. 20	PTgw	2	S	3	9.6	2	4	6	8	8.16	6	1	6	2	S	2	1.8	1.2	2.16	3.6	1	2	1	2	0.36	0.66		4		4.7

Table 32. Textile Attributes Derived from Cast Analysis of Fabric Impressed Ceramics from the Rutherford-Kizer site, 40SU15 (continued).

			FABRIC										WARP						WEFT						OTHER							
ID#	TS#	PROV.	FTS	FT SC	FT D	FT TA	FC	FCI	FCI #1	FCI #2	FCI #3	FD	Wp C	Wp Dm	Wp D	Wp Ply	Wp TD	Wp TA	Wt Rw	Wt RwDm	Wt D	Wt C	Wt Ydm	Wt Ply	AvY Dm	GW BR	GW BW	GW BS	TI WS	C	O	STh
187	120	Fea. 20	PTgw	2	S	3	9.2	2	4	6	8	7.92	6	1	6	2	S	2	1.6	1.2	1.92	3.2	1	2	1	2	0.44	0.5		3		5.7
188	120	Fea. 20	PTgw	2	S	3	9.6	2	4	6	8	8.16	6	1	6	2	S	2	1.8	1.2	2.16	3.6	1	2	1	2	0.44	0.7		4	OLY	5.8
189	120	Fea. 20	PTgw	2	S	3	9.8	2	4	6	8	8.28	6	1	6	2	S	2	1.9	1.2	2.28	3.8	1	2	1	2	0.44	0.64		4		5.3
190	120	Fea. 20	PTgw	2	S	3	9.6	2	4	6	8	8.16	6	1	6	2	S	2	1.8	1.2	2.16	3.6	1	2	1	2	0.5	0.6		3	OLY	3.8
191	112	Fea. 20	PT	1	S	3	9.6	2	3	5	7	9.36	6	1.2	7.2	2	S	2	1.8	1.2	2.16	3.6	1	2	1.1					4		8.7
192	121	Fea. 20	APT	1									2	3	6	2	Z	3					2	2	2.5					3		10.3
193	122	Fea. 20	APT	1	S	2	4.1	1	2	4	6	7.24	2.9	2	5.8	2	S	2	0.6	2.4	1.44	1.2	2	2	2					4		9.2
194	108	Fea. 20	APT	1	S	2	8	2	3	5	7	8.8	6	1.2	7.2	2	S	2	1	1.6	1.6	2	1.4	2	1.3					1		9.9
195	123	Fea. 20	CAPT	1	S	3	13.6	3	4	6	8	12.48	8	1	8	2	S	2	2.8	1.6	4.48	5.6	1.4	2	1.2					3		7.2
196	117	Fea. 20	PT	1	S	2	7.4	2	3	5	7	7.68	5	1.2	6	2	S	2	1.2	1.4	1.68	2.4	1.2	2	1.2					1		7.3
197		Fea. 20	LYNP																											1		13.5
198	124	Fea. 20	Ci	1			16	4	5	6.5	7.5		7			1		1	9	1	9	9	1	2						4		4.9
199	114	Fea. 20	APTgw	2	S	2	14.4	3	5	7	9	11.84	8	1	8	2	S	2	3.2	1.2	3.84	6.4	1	2	1	2	0.24	0.4		3		8.4
200	125	Fea. 20	PT	1	S	2	4.3	1	2	4	6	7.32	2.7	2	5.4	2	S	2	0.8	2.4	1.92	1.6	2	2	2					4		13.2
201	126	Fea. 36	CAPT	1	S	2	18	4	5	7	9	13.2	6	1	6	2	S	2	6	1.2	7.2	12	1	2	1					3		
202	127	Fea. 36	PT	1	S	2	3.7	1	2	4	6	8.08	2.5	2.8	7	2	S	2	0.6	1.8	1.08	1.2	1.6	2	2.2					3		12.2
203	128	Fea. 36	CAPT	1	S	2	16	4	5	7	9	14.4	8	1	8	2	S	2	4	1.6	6.4	8	1.4	2	1.2					4		6.4
204		Fea. 36	Und											1.6		2	S	2					1.6	2	1.6					0		10.9
205		Fea. 36	Tu											1		2	S	2	0.7				1.4	2	1.2					0		
206	129	Fea. 36	PT	1	S	3	3.2	1	2	4	6	7.68	2	3	6	2	S	2	0.6	2.8	1.68	1.2	2.4	2	2.7					4		7.9
207	130	Fea. 36	PT	1	S	2	7.1	2	3	5	7	6.72	4.1	1.2	4.92	2	S	2	1.5	1.2	1.8	3	1	2	1.1					3		10.8
208	131	Fea. 36	PT	1	S	2	12	3	4	5.5	7.5	9.5	7	1	7	2	S	2	2.5	1	2.5	5	0.8	1	0.9					3		
209	128	Fea. 36	CAPT	1	S	2	16	4	5	6.5	7.5	14.4	8	1	8	1		1	4	1.6	6.4	8	1.4	2	1.2					4		8.9
210	132	Fea. 36	APT	1	S	2	8.6	2	3	5	7	9.02	6	1.2	7.2	2	S	2	1.3	1.4	1.82	2.6	1.2	2	1.2					2		8
211	132	Fea. 36	APT	1	S	2	8.6	2	3	5	7	9.02	6	1.2	7.2	2	S	2	1.3	1.4	1.82	2.6	1.2	2	1.2					2		6
212	132	Fea. 36	APT	1	S	2	8.6	2	3	5	7	9.02	6	1.2	7.2	2	S	2	1.3	1.4	1.82	2.6	1.2	2	1.2					3		5.1
213	133	Fea. 36	PTgw	2	S	3	9.1	2	4	6	8	7.66	5.5	1	5.5	2	S	2	1.8	1.2	2.16	3.6	1	2	1	2	0.5	0.7		3	OLY	3.9
214	133	Fea. 36	PTgw	2	S	3	9.4	2	4	6	8	8.04	6	1	6	2	S	2	1.7	1.2	2.04	3.4	1	2	1	2	0.46	0.74		4		6.8
215	132	Fea. 36	APT	1	S	2	8.6	2	3	5	7	9.02	6	1.2	7.2	2	S	2	1.3	1.4	1.82	2.6	1.2	2	1.2					2		8.9
216	132	Fea. 36	APT	1									6	1.2	7.2	2	S	2	1.3											1		8.9
217	130	Fea. 36	PT	1	S	2	7	2	3	5	7	6.6	4	1.2	4.8	2	S	2	1.5	1.2	1.8	3	1	2	1.1					2		10.3

Table 32. Textile Attributes Derived from Cast Analysis of Fabric Impressed Ceramics from the Rutherford-Kizer site, 40SU15 (continued).

			FABRIC										WARP						WEFT						OTHER							
ID#	TS#	PROV.	FTS	FT SC	FT D	FT TA	FC	FCI	FCI #1	FCI #2	FCI #3	FD	Wp C	Wp Dm	Wp D	Wp Ply	Wp TD	Wp TA	Wt Rw	Wt RwDm	Wt D	Wt C	Wt Ydm	Wt Ply	AvY Dm	GW BR	GW BW	GW BS	TI WS	C	O	STh
218	134	Fea. 36	APTgw	2	S	2	9.4	2	4	6	8	10.26	6	1.2	7.2	2	S	2	1.7	1.8	3.06	3.4	1.4	2	1.3	2	0.6	0.6		3		10.6
219	135	Fea. 36	APTgw	2	S	2	8.4	2	4	6	9	10.74	5	1.4	7	2	S	3	1.7	2.2	3.74	3.4	1.6	2	1.5	2	0.44	0.6		4		6.6
220	136	Fea. 36	APT	1	S	2	6.2	2	3	5	7	6.66	3.6	1.2	4.32	2	S	2	1.3	1.8	2.34	2.6	1.4	2	1.3					3		
221	137	Fea. 36	APT	1	S	3	3.6	1	2	4	7	8.8	2	2.8	5.6	2	Z	3	0.8	4	3.2	1.6	3	2	2.9					4		11.4
222	137	Fea. 36	APT	1	S	3	3.6	1	2	4	7	8.8	2	2.8	5.6	2	Z	3	0.8	4	3.2	1.6	3	2	2.9					4		10.8
223	138	Fea. 36	PT	1	S	2	6	2	3	5	7	9	4	1.8	7.2	2	S	2	1	1.8	1.8	2	1.6	2	1.7					4		14.1
224	132	Fea. 36	APT	1	S	2	9.6	2	3	5	7	10.08	6	1.2	7.2	2	S	2	1.8	1.6	2.88	3.6	1.4	2	1.3					2		6.2
225	139	Fea. 36	PT	1	S	2	9.6	2	3	5	6	8.88	5.2	1.2	6.24	2	S	1	2.2	1.2	2.64	4.4	1	2	1.1					3		9.3
226	140	Fea. 36	PT	1	S	2	7.3	2	3	4.5	6.5	7.56	5.3	1.2	6.36	2	S	2	1	1.2	1.2	2	1	1	1.1					4		7.4
227	133	Fea. 36	PT(gw)	1	S	3	8.8	2	3	5	7	7.68	6	1	6	2	S	2	1.4	1.2	1.68	2.8	1	2	1					4	OLY	7
228	139	Fea. 36	PT	1	S	2	9.4	2	3	5	6	8.64	5	1.2	6	2	S	1	2.2	1.2	2.64	4.4	1	2	1.1					3		8.2
229	133	Fea. 36	PTgw	2	S	3	9	2	4	6	8	7.8	6	1	6	2	S	2	1.5	1.2	1.8	3	1	2	1	2	0.46	0.8		4	OLY	5.4
230	141	Fea. 36	PTtiw	2	S	3	16	4	6	8	10	11	10	0.8	8	2	S	2	3	1	3	6	0.8	2	0.8				0.1	3		6.2
231		Fea. 36	LYNP																											1		
232		Fea. 36	TU																											1		7.4
233	142	Fea. 36	PT	1	S	2	7.9	2	3	5	7	8.18	5.3	1.2	6.36	2	S	2	1.3	1.4	1.82	2.6	1.2	2	1.2					4		11.6
234	143	Fea. 36	APTgw	2	S	2														2.4			1.6				0.5			0		9.4
235	144	Fea. 36	PT	1	S	2	12	3	4	5.5	7.5	11.4	6	1.2	7.2	2	S	2	3	1.4	4.2	6	1.2	1	1.2					3		7.1
236	134	Fea. 36	APTgw	2	S	2	9.6	2	4	6	8	10.44	6	1.2	7.2	2	S	2	1.8	1.8	3.24	3.6	1.4	2	1.3	2	0.7	0.6		3		8.6
237	134	Fea. 36	APTgw	2	S	2	9.4	2	4	6	8	10.26	6	1.2	7.2	2	S	2	1.7	1.8	3.06	3.4	1.4	2	1.3	2	0.7	0.6		3		8.6
238	143	Fea. 36	APTgw	2	S	2	8.4	2	4	6	8	10.08	5	1.2	6	2	S	2	1.7	2.4	4.08	3.4	1.6	2	1.4	2	0.5	0.6		4		8.6
239	128	Fea. 36	CAPT	1	S	2	16	4	5	6.5	7.5	14.4	8	1	8	1		1	4	1.6	6.4	8	1.4	2	1.2					4		9.1
240	145	Fea. 36	Ci	1			15	4	5	6.5	7.5		6			1		1	9	0.8	7.2	9	0.8	2						4		7.4
241	134	Fea. 36	APTgw	2	S	2	9.4	2	4	6	8	10.26	6	1.2	7.2	2	S	2	1.7	1.8	3.06	3.4	1.4	2	1.3	2	0.7	0.6		3		16
242		Fea. 36	LYP											1.2		2	S	2												1		9.6
243	128	Fea. 36	CAPT	1	S	2	16	4	5	6.5	7.5	14.4	8	1	8	1		1	4	1.6	6.4	8	1.4	2	1.2					4		9.5
244	146	Fea. 36	Ci	1			12	3	4	5.5	6.5		6			1		1	6	1	6	6	1	2						0		9.4
245*	147	Fea. 36	PT	1	S	3	4.6	1	2	4	6	8.84	2.6	2.4	6.24	2	S	2	1	2.6	2.6	2	2	2	2.2					4		10
246*	148	Fea. 36	CPT	1	S	2	14.4	3	4	6	8	16.86	2.6	2.4	6.24	2	S	2	5.9	1.8	10.62	11.8	1.4	2	1.9					4		
247	149	Fea. 36	PT	1	S	2	6	2	3	5	7	8	2	2	4	2	S	2	2	2	4	4	1.6	2	1.8					4		9.7
248	150	Fea. 86	PT	1	S	2	7.2	2	3	5	7	7.36	4	1.2	4.8	2	S	2	1.6	1.6	2.56	3.2	1.4	2	1.3					3		

Table 32. Textile Attributes Derived from Cast Analysis of Fabric Impressed Ceramics from the Rutherford-Kizer site, 40SU15 (continued).

			FABRIC										WARP						WEFT						OTHER							
ID#	TS#	PROV.	FTS	FT SC	FT D	FT TA	FC	FCI	FCI #1	FCI #2	FCI #3	FD	Wp C	Wp Dm	Wp D	Wp Ply	Wp TD	Wp TA	Wt Rw	Wt RwDm	Wt D	Wt C	Wt Ydm	Wt Ply	AvY Dm	GW BR	GW BW	GW BS	TI WS	C	O	STh
249	151	Fea. 88	PTgw	2	S	2	12.6	3	5	7	9	11.16	6	1.2	7.2	2	S	2	3.3	1.2	3.96	6.6	1	2	1.1	3	0.44	0.4		3		6.9
250	152	Fea. 88	PT	1	S	3	6	2	3	5	7	6.8	4	1.2	4.8	2	S	2	1	2	2	2	1.6	2	1.4					4		6
251	153	Fea. 89	PT	1	S	2	8	2	3	5	7	9.2	4	1.6	6.4	2	S	2	2	1.4	2.8	4	1.2	2	1.4					3		10.3
252	154	Fea. 89	PT	1	S	2	9.1	2	3	5	7	8.34	5.3	1	5.3	2	S	2	1.9	1.6	3.04	3.8	1.4	2	1.2					3		7.7
253	155	Fea. 89	PT	1	S	2	4.4	1	2	4	6	5.46	3	1.4	4.2	2	S	2	0.7	1.8	1.26	1.4	1.4	2	1.4					4		5.7
254	156	Fea. 95	APT	1	S	2	6.8	2	3	5	7	7.62	5	1.2	6	2	S	2	0.9	1.8	1.62	1.8	1.4	2	1.3					4		11.8
255	157	Fea. 95	APT	1	S	2	14	3	4	6	8	12.2	8	1	8	2	S	2	3	1.4	4.2	6	1.2	2	1.1					0		11.5
256	157	Fea. 95	APT	1	S	2	14	3	4	6	8	12.2	8	1	8	2	S	2	3	1.4	4.2	6	1.2	2	1.1					0		
257	158	Fea. 96	PT	1	S	2	11	3	4	6	8	9.4	7	1	7	2	S	2	2	1.2	2.4	4	1	2	1					3		5.1
258	159	Fea. 101	PT	1	S	2	9.6	3	4	6	8	8.76	5	1.2	6	2	S	2	2.3	1.2	2.76	4.6	1	2	1.1					3		8.1
259	160	Fea. 101	PT	1	S	2	3.3	1	2	4	6	5.14	2.3	1.8	4.14	2	S	2	0.5	2	1	1	1.6	2	1.7					4		11
260	159	Fea. 101	PT	1	S	2	9.6	3	4	6	8	8.76	5	1.2	6	2	S	2	2.3	1.2	2.76	4.6	1	2	1.1					3		9
261	161	Fea. 101	CAPT	1	S	2	15	4	5	6.5	7.5	15	8	1	8	1		1	3.5	2	7	7	1.6	2	1.3					4		4.1
262	162	Fea. 101	PT	1	S	2	7	2	3	5	7	7.7	4	1.4	5.6	2	S	2	1.5	1.4	2.1	3	1.2	2	1.3					4	OLY	11.3
263		Fea. 101	Und																											1		9.5
264	163	Fea. 101	PT	1	S	2	7.6	2	3	5	7	8.82	5	1.4	7	2	S	2	1.3	1.4	1.82	2.6	1.2	2	1.3					3		8.4
265	163	Fea. 101	PT	1	S	2	7.6	2	3	5	7	8.82	5	1.4	7	2	S	2	1.3	1.4	1.82	2.6	1.2	2	1.3					4		
266	163	Fea. 101	PT	1	S	2	7.1	2	3	5	7	6.84	4.3	1.2	5.16	2	S	2	1.4	1.2	1.68	2.8	1	2	1.1					3		8
267	163	Fea. 101	PT	1	S	2	6.4	2	3	5	7	8.08	4	1.6	6.4	2	S	2	1.2	1.4	1.68	2.4	1.2	2	1.4					4		6.3
268	164	Fea. 101	Ci	1			7	2	3	4.5	5.5		3			1		1	4	2	8	4	2	2						4		8.7
269	163	Fea. 101	PT	1	S	2	7.2	2	3	5	7	8.26	4.6	1.4	6.44	2	S	2	1.3	1.4	1.82	2.6	1.2	2	1.3					4		12.1
270	165	Fea. 101	PT	1	S	2	5.3	2	3	5	7	6.02	3.3	1.4	4.62	2	S	2	1	1.4	1.4	2	1	2	1.2					4		8.9
271	166	Fea. 101	PT	1	S	3	5.8	2	3	5	7	7.68	3	2	6	2	S	2	1.4	1.2	1.68	2.8	1	2	1.5					4		
272	166	Fea. 101	PT	1	S	3	5.6	2	3	5	7	7.56	3	2	6	2	S	2	1.3	1.2	1.56	2.6	1	2	1.5					3		8.3
273	162	Fea. 101	PT	1	S	2	7	2	3	5	7	7.7	4	1.4	5.6	2	S	2	1.5	1.4	2.1	3	1.2	2	1.3					4	OLY	10.5
274	167	Fea. 101	PT	1	S	2	3.9	1	2	4	6	8.76	2.5	3	7.5	2	S	2	0.7	1.8	1.26	1.4	1.6	2	2.3					4		10.6
275	162	Fea. 101	PT	1	S	2	7	2	3	5	7	7.7	4	1.4	5.6	2	S	2	1.5	1.4	2.1	3	1.2	2	1.3					4	OLY	12.2
276	163	Fea. 101	PT	1	S	2	6.8	2	3	5	7	6.76	4	1.2	4.8	2	S	2	1.4	1.4	1.96	2.8	1.2	2	1.2					4		9.5
277	163	Fea. 101	PT	1	S	2	7	2	3	5	7	7.4	4	1.4	5.6	2	S	2	1.5	1.2	1.8	3	1	2	1.2					4		8.9
278	168	Fea. 101	PT	1	S	2	11	3	4	5.5	7.5	9.4	7	1	7	2	S	2	2	1.2	2.4	4	1	1	1					4		10.2
279		Fea. 101	Und																											0		7.7

Table 32. Textile Attributes Derived from Cast Analysis of Fabric Impressed Ceramics from the Rutherford-Kizer site, 40SU15 (continued).

			FABRIC										WARP						WEFT						OTHER							
ID#	TS#	PROV.	FTS	FT SC	FT D	FT TA	FC	FCI	FCI #1	FCI #2	FCI #3	FD	Wp C	Wp Dm	Wp D	Wp Ply	Wp TD	Wp TA	Wt Rw	Wt RwDm	Wt D	Wt C	Wt Ydm	Wt Ply	AvY Dm	GW BR	GW BW	GW BS	TI WS	C	O	STh
280	169	Fea. 101	PT	1	S	2	10.5	3	4	6	8	8.58	5.7	1	5.7	2	S	2	2.4	1.2	2.88	4.8	1	2	1					3		5.7
281	169	Fea. 101	PT	1	S	2	11.4	3	4	6	8	9.16	5.8	1	5.8	2	S	2	2.8	1.2	3.36	5.6	1	2	1					4		7.3
282	170	Fea. 109	PT	1	S	2	13.6	3	4	6	8	10.96	7	1	7	2	S	2	3.3	1.2	3.96	6.6	1	2	1					4		
283	171	Fea. 112	APT	1	S	2	3.4	1	2	4	6	8.8	2	3	6	2	Z	2	0.7	4	2.8	1.4	3	2	3					4		7.7
284	172	Fea. 119	PT	1	S	2	15	4	5	6.5	8.5	11.4	6	1	6	2	S	2	4.5	1.2	5.4	9	1	1	1					4		10.1
285	173	Fea. 162	PT	1	S	2	5.6	2	3	5	7	5.12	4	1	4	2	S	2	0.8	1.4	1.12	1.6	1.2	2	1.1					2	OLY	7.6
286	174	Fea. 162	PT	1	S	3	7.4	2	3	5	8	8.92	5	1.4	7	2	S	3	1.2	1.6	1.92	2.4	1.4	2	1.4					4		11.8
287	175	Fea. 162	APT	1	S	2	7.8	2	3	5	7	7.24	5	1	5	2	S	2	1.4	1.6	2.24	2.8	1.2	2	1.1					3		8.8
288		Fea. 194	Und																											0		13.6
289	175	Fea. 196	CPT	1	S	3	11	3	4	6	8	11.8	5	1.4	7	2	S	2	3	1.6	4.8	6	1.4	2	1.4					4		8.6
290	177	Fea. 359	CAPT	1	S	2	12	3	4	5.5	6.5	10.8	6	1	6	1		1	3	1.6	4.8	6	1.4	2	1.2					3		12.9
291	178	Fea. 359	APTgw	2	S	2	11.2	3	5	6	7	10.24	8	1	8	1		1	1.6	1.4	2.24	3.2	1.2	1	1.1	2	0.4	0.8		0		8.5
292	179	Fea. 361	PT	1	S	3	9	2	3	5	7	8.4	5	1.2	6	2	S	2	2	1.2	2.4	4	1	2	1.1					4		12
293	180	Fea. 365	PT	1	S	3	9	2	3	5	7	7.8	6	1	6	2	S	2	1.5	1.2	1.8	3	1	2	1					3		9.2
294	181	Fea. 425	PT	1	S	2	12.2	3	4	6	8	10.52	8	1	8	2	S	2	2.1	1.2	2.52	4.2	1	2	1					4		8.4
295	182	Fea. 425	CAPT	1	S	3	12	3	4	5.5	6.5	13.8	6	1.2	7.2	1		1	3	2.2	6.6	6	1.8	2	1.5					4		6.7
296	183	Fea. 500	PT	1	S	3	9.4	2	3	5	7	8.2	5.4	1	5.4	2	S	2	2	1.4	2.8	4	1	2	1					3		8.1
297	183	Fea. 500	PT	1	S	3	9.5	2	3	5	7	8.3	5.5	1	5.5	2	S	2	2	1.4	2.8	4	1	2	1					4		8.9
298	184	Fea. 587	PT	1	S	2	9.2	2	3	5	7	8.74	4.6	1.2	5.52	2	S	2	2.3	1.4	3.22	4.6	1	2	1.1					4		10.4
299	185	Fea. 588	PT	1	S	2	8.6	2	3	5	7	9.02	6	1.2	7.2	2	S	2	1.3	1.4	1.82	2.6	1	2	1.1					4	OLY	14
300	185	Fea. 588	PT	1	S	2	8.9	2	3	5	7	9.38	6.3	1.2	7.56	2	S	2	1.3	1.4	1.82	2.6	1	2	1.1					4		14.2
301	186	Fea. 588	PT	1	S	3	11	3	4	6	9	10.2	7	1.2	7	2	S	3	2	1.6	3.2	4	1.2	2	1.2					4		11.5
302	187	Fea. 588	PT	1	S	2	8.6	2	3	5	8	10.08	4	1.6	6.4	2	S	3	2.3	1.6	3.68	4.6	1.4	2	1.5					4		9.5
303	185	Fea. 588	PT	1	S	2	9.1	2	3	5	7	9.62	6.5	1.2	7.8	2	S	2	1.3	1.4	1.82	2.6	1	2	1.1					4		9.9
304	185	Fea. 588	PT	1	S	2	9.3	2	3	5	7	9.76	6.5	1.2	7.8	2	S	2	1.4	1.4	1.96	2.8	1	2	1.1					4		7.9
305	187	Fea. 588	PT	1	S	2	8.4	2	3	5	7	9.92	4	1.6	6.4	2	S	2	2.2	1.6	3.52	4.4	1.4	2	1.5					3		9
306	188	Fea. 696	PT	1	S	2	8.6	2	3	5	7	10	5.2	1.4	7.28	2	S	2	1.7	1.6	2.72	3.4	1.2	2	1.3					4		9.3
307	189	Fea. 702	APT	1	S	3	14	3	4	6	8	12.2	8	1	8	2	S	2	3	1.4	4.2	6	1	2	1					4		9.9
308	190	Fea. 880	APT	1	S	3	9.8	2	3	5	7	13.76	5	1.6	8	2	S	2	2.4	2.4	5.76	4.8	2	2	1.8					4		9.3
309	191	Fea. 880	CAPT	1	S	2						6.16	7			1		1	4.4	1.4	6.16	8.8	1.2	1						0		15.5
310	192	Fea. 880	APT	1	S	2	9	2	3	5	7	10.2	6	1.2	7.2	2	S	2	1.5	2	3	3	1.6	2	1.4					3		7.4

Table 32. Textile Attributes Derived from Cast Analysis of Fabric Impressed Ceramics from the Rutherford-Kizer site, 40SU15 (continued).

			FABRIC										WARP						WEFT						OTHER							
ID#	TS#	PROV.	FTS	FT SC	FT D	FT TA	FC	FCI	FCI #1	FCI #2	FCI #3	FD	Wp C	Wp Dm	Wp D	Wp Ply	Wp TD	Wp TA	Wt Rw	Wt RwDm	Wt D	Wt C	Wt Ydm	Wt Ply	AvY Dm	GW BR	GW BW	GW BS	TI WS	C	O	STh
311	193	Fea. 880	PT	1	S	2	9.8	2	3	4.5	6.5	7.88	5	1	5	2	S	2	2.4	1.2	2.88	4.8	1	1	1					3		6.5
312	194	Fea. 880	PT	1	S	3	7.1	2	3	4.5	5.5	7.74	4.5	1.2	5.4	1		1	1.3	1.8	2.34	2.6	1.4	2	1.3					0		
313	195	Fea. 880	CAPT	1	S	2	15	4	5	6.5	7.5	13.4	7	1	7	1		1	4	1.6	6.4	8	1.4	2	1.2					0		
		Total cases statistical summary																														
		MIN		1		2	3.2	1	2	4	5.5	4.98	2	0.8	3.3	1		1	0.5	0.8	0.6	1	0.6	1	0.7	2	0.24	0.36	0.1			3.8
		MED		1			9.2	2	4	5.5	7.5	8.84	5.7	1.2	6	2		2	1.8	1.4	2.4	3.6	1.2	2	1.2	2	0.44	0.6	0.16			9
		AVE		1.2			9.5804	2.42	3.65	5.58	7.56	9.4164	5.4088	1.2907	6.3663	1.899		1.987	2.1737	1.549	3.221	4.2421	1.266	1.9561	1.28	2.0435	0.4426	0.67	0.159			9.1341
		MAX		2		4	21.8	5	6	8	10	18.72	11	3	10.32	2		3	9	4	10.62	14	3	2	3	3	0.7	2.6	0.2			18.2
		S D					3.682					2.589	1.6834	0.5011	1.1768	0.3019		0.457	1.4138	0.475	1.998	2.4632	0.375	0.2053	0.413	0.2062	0.1242	0.34	0.017			2.4003
		total	313	297	290	290	285	285	285	285	284	281	295	291	287	297	289	297	293	294	290	290	298	296	286	46	47	46	19	17		287
		Total textile structures statistical summary																														
		MIN		1		2	3.2	1	2	4	5.5	4.98	2	0.8	3.3	1		1	0.5	0.8	0.6	1	0.6	1	0.7	2	0.24	0.4	0.1			3.9
		MED		1			8.85	2	3	5	7.5	8.83	5	1.2	6.24	2		2	1.8	1.4	2.6	3.6	1.2	2	1.2	2	0.5	0.6	0.16			9.25
		AVE		1.1			9.699	2.47	3.61	5.53	7.53	9.549	5.368	1.297	6.327	1.881		2.005	2.307	1.574	3.443	4.423	1.276	1.938	1.291	2.095	0.453	0.76	0.155			9.355
		MAX		2		3	21.8	5	6	8	10	18.72	11	3	10.32	2		3	9	4	10.62	14	3	2	3	3	0.6	2.6	0.2			18.2
		S D					4.005					2.923	1.807	0.49	1.305	0.325		0.515	1.606	0.472	2.206	2.729	0.362	0.241	0.392	0.301	0.105	0.46	0.041			2.385
		total	195	195	189	189	190	190	190	190	189	186	193	187	187	193	171	193	193	194	193	193	195	195	186	21	21	21	4	11		176

numbers in shaded columns are determined by formulas given in the key below

empty cells reflect inaccessibilty of attributes due to compact structure, faint impressions, eroded surface, etc.

FTS= fabric/textile structure, e.g. PT=plain twining (see Table 30 key for complete list)
FTSC= fabric total structures combined
FTD= twining twist direction (S or Z)
FTTA= twining twist angle index (<10°=1; 11°-25°=2; 26°-45°=3)
FC= fabric count -- WpC + WtC
FCI= fabric count index -- (if FC=0 to 4.9, then FCI=1; if FC=5 to 9.9, then FCI=2; if FC=10-14.9, then FCI=3; if FC=15 to 19.9, then FCI=4; if FC=20 to 24.5, FCI=5)

FCI#1= modified complexity index # 1 (FCI + FTSC)
FCI#2= modified complexity index # 2 [FCI#1+(WpPly +WtPly÷2)]
FCI#3= modified complexity index # 3 (FCI#2 + WpTA)
FD= fabric density -- WpD + WtD
WpC= warp count per centimeters
WpDm= warp diameter in millimeters
WpD= warp density - (WpC x WpDm)
WpPly= # of warp plies - (except for TS#47, 1=not visible, but at least one ply is present)

WpTD= warp twist direction (S or Z)
WpTA= warp twist angle (see FTTA)
WtRw= weft rows per centimeter
WtRwDm= weft row diameter in mm.
WtD= weft density(WtRw x WtRwdm)
WtC= weft count (WtRw x # of twining elements--usually 2)
WtYdm= weft yarn diameter in mm
WtPly= # of weft plies (see WpPly)
AvYDm= average yarn diameter [(WpDm + WtYdm) ÷ 2]
GWBR= # of twining rows in the grouped weft band

GWBW= grouped weft band width, mm
GWBS= space between bands, in mm
TIWS= transposed interlinked warp space within the openwork
C= condition of fabric -- (0= unknown; 1=loose yarns; 2=broken/frayed yarns; 3=missing weft element; 4=no evidence of wear)
O= fabric overlay (OLY) or overlap (OLP)

STh= sherd thickness

APPENDIX H

EDWIN CURTISS LETTERS AND NOTES RELATING TO INVESTIGATIONS AT RUTHERFORD'S FARM, PEABODY MUSEUM OF ARCHAEOLOGY AND ETHNOLOGY, HARVARD UNIVERSITY

PEABODY MUSEUM ACCESSION NUMBER 79-4

Kevin E. Smith and Michael C. Moore

The following is a page by page transcription of three letters and one set of notes written by Edwin Curtiss to F. W. Putnam (Curator of the Peabody Museum). These communications, written in December 1878 and January 1879, provide important information about the Rutherford's Farm investigations in Sumner County, Tennessee.

These letters and notes are filed in "Tennessee Notes, 1878" as part of the collection accessioned as Peabody Museum Number 79-4. In these transcripts, words and segments that were not interpretable are indicated in italicized text and by brackets enclosing question marks or possible interpretations with question marks. Number of question marks generally attempts to simulate the length of the untranscribed word or words.

Letter of December 7th, 1878

Edwin Curtiss to F. W. Putnam

Peabody Museum Accession Number 79-4

page 1

Nashville, Dec. 7th, 1878

My dear Mr. Putnam

Yours of Nov 30th is to hand
contents noted I was away at
work when it arived or I should
have answered sooner. I heard of
a large mound and earthworks
in Sumner County last Saturday
and I took my self and laboures
out there on monday morning and
found that it was a fortified place
of the people I was resarecting and
went at it. I worked all the week
and made some good finds I got
twelve cranias and 8 pieces of potery
I found the potery in fragments but
saved eight good spicemenes and
got something new in better shape
and the image [li*??]* I have got a large
image but it had bin broken by
the plow but I saved all the pieces but
one and that could not be found
but it does not hurt it or detract
from its beauty or looks I have

allso found a larg and fine
lot of large beads and small
one to one vary fine bone implement
next I have found several worked
shell or totems and fragments of
copper one piece of lead ore or
galena one large conk shell
So I am not discaraged with my
weeks work up in Sumner Co
all though I tried to get more potery
but it was not there for me this
last week I will return next monday
morning with more help and finish
the place next week then I will go
whare drakes crick emties in the
cumberland river and explore as I
hear there is large mounds and earth
work there that is six miles from
whare I am at work now and that
is in the timber and never bin disturbed
I will get you the rocks or find
a grave made of slate or shale and
send it on shale will be light if
I can find it sound will send you
a good one and mark it so you cant
go wrong when you set it up
I will number it and mark it allso
No fear of going astray with it

I was surprised to get you check
as I was not out of funds but
it will put me in a good fix and
I will account for every farthing
spent I don't pay my men by the
day I take from here I pay by the
hour when in the field if they
work eight hours I pay them 80 cts
and at that rate I don't pay over
that to the best hands I have
I rent a horse and wagon for fifty
cents per [*diem?*] and feed the horse while
out I find it much cheaper than
by cars or chance to hire a wagon
and driver as I do all that myself
and I have my plunder under my
own care all the time till I
ship we have had beautiful
weather to work and I think
I can work all winter but two
or three week we generally have
about that much bad weather
here but little more unless this
is an exception
I will send you those Shells
and will be obliged to you for
your kindness and trouble if they
can be worked I shall take a

trip on there with full samples
and make what I can out of them
if they will do or can be worked
and se all the manufactures of
the perl buttons [*J*]ast I hope they
will anser for I want to
look that museum over and
say that I have seen the
Hub of the universe Boston
will write as I progress with my
collection from time to time
hoping this scrawl will reach
you. I remain
Truly Yours Edwin Curtis

PS will send you
a sketch of the field and
mounds circles and earth works.

Letter of December 22nd, 1878

Edwin Curtiss to F. W. Putnam

Peabody Museum Accession Number 79-4

page 1

Nashville Decm 22 d, 1878

My dear Mr. Putnam

it is some time since I wrote you
about the collection I have ben
getting lately I cant ship yet
as I have not got what I want
to send allthough I have twenty
cranias nearly as many jars or
pots and some beautiful stones
discoidal [*??*] whirls [*???*]
I have got the largest image I have
ever found but it was broken
by the plough but I saved all
the pieces I could find I can
put your piece of potery in
the shade the one you marked
50 in the lebenon collection
I found this one laying at the
head of a grave on the east side
under the top rocks or covering
stones I dug around it careful
and raised it up and thought
what a prize I had found and
it fell in nearly a hundred

pieces I saved them all
and if the potery is not to
rotten you can stick it to
gether again I will send
you a set of grave rock when
I find some that are not to heavy
and have ben worked by them
the wether is a little winterish
and I will not be able to go
out till after the hollidays are
over I shall finish this
collection on drakes creek
near whare it emties in the
cumberland river as there is
a large lot of mounds and some
burial ones there then I will
go down the cumberland to
the mouth of harpeth river and
open a few hundred near whare
that stone pot I sent you came
from Col Thruston showed
me a pipe like the one got
at lebnon only the head had
ben broken off it came from
georgia I have found no
pipes that does not seem

to be my luck I have
found some fine large
beads and small ones
I have had good luck with
them but no pipes it makes
me allmost cuss some times
we have had no cold
wether down here till
last week Thursday but
it is froze hard here at present
and I hope it will last
til after the hollidays are
over but it wont I am afraid
we have had no snow here
but I have seen it snow
for five minutes and not
be seen in ten more
evry one is wishing for
cold freezing weather to
kill the yellow fever germ
your two boxes came all
right and they are partly
filled happy christmas
to you and new year
allso
Most [*respectfully*] yours
E Curtiss

Edwin Curtiss Field Notes

Rutherford's Farm, Sumner County, Tennessee

December [??], 1978

Peabody Museum Accession Number 79-4

page 1

December *[??]* 1878

commenced exploring
in Sumner Co. on Mr.
Ruthfords farm 17 miles
from Nashville and
three hundred yards from
drakes creek and

there is a large mound
and a chain of earth
works encirciling the
large mound and the
smaller ones allso
the works enclose about
15 acres and one
half of the works can
be traced by the eye
and the plough has partially
obliterated the ballance
in the field there is
two fine cold springs
one on the east side
and one on the west
side the one on the
east side is
one hundred yards from

the earth works or
brest works as
they ma be classed
and the one on the
west side is
fifty yards from
the line of works
this was there vilage
or camping ground
evidently as there are
circles and small
mounds attached to them
and there are graves in
several of those mounds
joining the circles and
some on the rim or edge
of the circles all of
which I opened and explored.

grave opened on Mr.
Ruthfords place
within the circle or
Brestworks.
grave one 4 ft long
18 in wide an 12 deep
head to east nothing
Saved but crania
the lower jaw bone could
not be found the grave
was made of large flat
rocks setting up edge
wise and covered with
large flat rocks and
was found near one
of the circle mounds
the body laid on
broken pieces of potery
grave 2nd was
five feet long and
13 in wide 12 deep
nothing saved
head to north *[C??????]*
shells charcoal and ashes
in it

graves three and
four were side by
side heads to
north east nothing
saved from them

5th grave 5 ft long
usial bredth and
depth head to west
[?????] saved nothing else
found or saved

6th grave 5 ft 6 in long
18 wide 19 deep head
to west nothing
in grave but the
body head saved

7th grave 6 ft long first
tier 22 in wide 14
deep head to west
bones nearly all gone
one large dish broken
and one bone implement

found under the head

8th g 6 ft long 21 in wide
14 deep head to east
nothing saved but
one broken dish

9th gr 5 ft long 18 in wide 12 deep
head to north west
crania saved nothing
else found in grave

10th grave 5 ft long 18 in wide
12 deep head to north
west nothing found
with body

grave 11 three feet
long 15 in wide 10
deep that of a
child one small
image and two fragments
of Shells worked
or totems

12th g. 6 ft long
18 in wide 12 deep
head south first
tier nothing saved

13th 6 ft long 2
bodies in oposite
ends of g. north
and south
one crania
saved

14th 6 ft long 20 in wide
13 deep head to north
bones nearly all gone but
fragments one pot & broken jar

15th nothing saved

16th nothing saved

17th g. 6 ft long 20 wide
14 deep first tier grave
full of water head
to north beads saved
and crania allso nothing
else found bones in good
state of preservation is
evidently one of the first
buried in mound 8 [*beads*]

18th grave 6 ft long 20 in wide
14 deep head to north bones
broken and nothing saved
but one pot and that
broken pieces all saved

19th 20=21=22=23=24=25
26=27=28=29 were graves
of adults nothing found
or saved

30th gr five ft long bones
burnt and nothing but
fragments of them found
evidently burned whare they
were found or buried as
the clay and eath showed
that it had ben burnt
one piece of potery was
found in the grave

31st grave. 6 ft long 20 in wide
14 deep head to south beads
and drill found crania
saved but broken so
I did not ship it could
ship sound ones

32nd grave
Burnt bones and two beads

page 10

33d grave 6 ft 8 in long 22
in wide depth could not be
ascertained as the rocks had
fallen in and but little
earth in gr first tier as
there were two grs over this
head to south and in fragments
Saved beads one conk shell
[cut] one button made
formerly covered with copper
and a small piece of
galena or lead ore there
has ben a vane of the
ore found about three
quarters of a mile from
the mound with in a
year or so

page 11

34=35=36=37=38=39=40=41=42
43=44=45=46 were opened
by me and nothing found
with the exception of several
having two and three bodies
in [*last*] no bones saved
having bin disturbed by
the plow top rocks having
ben removed

47th grave. 5 ft long 15 in deep
20 wide one large image
found seting on the top
rocks and the image seting
on broken pieces of pottery
Same as they would lay
there dead bodies on the
image was broken by the
plow pieces all saved
or all that could be found
I detailed a man to sift the
dirt or earth to find all
the fragments and looked
my self carefuly for
pieces

48th grave five ft long 20
in wide 15 deep head to
north one large jar found
on the right side of crania
the crania broken nothing
saved but potery

49th gr 6 ft long 20 in wide 19 deep
head to north crania broken
beads and worked shell
or totem

50 skull & 2 jaw bones

52 d 5 ft long 19 in wide
12 deep head to west nothing
saved but totem & beads

53 d grave nothing
found

54th grave 6 ft 6 in long 20 in
wide 12 deep head to west and
saved three *[others?]* in the grave
but all broken bones badly
decayed one bead and two
fragments of worked shell
saved grave full of perrywinkles

55th 56=57=58=59=60=61=62
were grave opened but nothing
found all with in earth
works near small
circles

63rd grave 6 ft 9 in long 22
in wide 15 deep grave
north and south *[4? 7?]* bodies in
it two [*?????*] fragments
of copper saved

64th grave 6 ft 6 in long 20 in wide
14 deep heads in opposite ends of grave
north & south two cranias saved

worked shell & beads
found

65th=66 =67=68 69 70
were opened near the
circles and nothing
found

71st grave 6 ft long
20 in wide 18 deep
one crania saved
head to south

72nd gr 5 ft long 19 in wide
18 deep head to west
nothing saved but
crania

73rd 6 ft long two bodies
in it bones nearly all
gone nothing saved
heads to north

74th 5 ft long one crania
saved nothing found
with crania

75th 76=77=78=79=80 81=82
[83?] and 84th were all
opened and nothing found
or saved with any of
them

page 16

85th grave 6 ft long
one crania saved head
to north one discoidal stone
and one oblong rock saved
one jaw of a coon or fox

86th 5 ft long nothing saved
but three stones with
holes through them like
spindles whirls nothing
else saved

87th grave that of an infant
two ft 9 in long one pot
saved and one bead

88=89=90=91 were nothing
found or saved

page 17

92nd grave that of an infant
three ft long one small
bead found and the *[bead? Head?]*
of a *[incronite???]* with *[stem???]*
all saved [Transcriber's note: *Might be crinoid with stem???]*

93rd grave was an infants
[???] one little idle found
in grave

page 18

I left the enclosure
or earth works and
opened some graves
3 hundreds yards from the
sacrificial mound
and opened a number
of graves I opened 10
and found nothing
the 11th I saved a
crania and a round
stone and three
pieces of flints
all of which I
will mark and
send it along

page 19

grave 12 nothing in
it 13th five ft
long two cranias in
heads to west none
saved nothing else
found

13th 6 ft long 20 in wide
14 deep grave east and west
three cranias in it
nothing found but
beads and at the head
or on the east end on
out side was found
the wonderfull vesel
in pieces the same as is
you found in lebnon and
marked 50 in report

14th nothing saved
but
beads

Letter of January 8th, 1879

Edwin Curtiss to F. W. Putnam

Peabody Museum Accession Number 79-4

page 1

Nashville January 8th, 1879

My dear Mr. Putnam

Yours of the first is receaved and contints
noted and atended to. I shiped you the
large box full on monday the 6th
by [*??*] dispatch I filled the boxes with
potery and crania 15 of the latter and
9 of potery Shells beads stones &
bone tools [*??*} I only shiped the large
box containing 24 small ones I did not
ship all the crania I had by 5 I will
ship them with my next shipment
it is colder here than I ever saw it
before last winter I could work all
the time out of doors nearly I have
not ben out to work since december the
first to the tenth it has frozen up tight
but is raining vary hard today the
ground has frozen 12 in deep ice has
frozen 6 in thick on the ponds and
many people are sufering down here
in the sunny south from the cold
a nomber has frozen to death nigers &
tramps

I send bill of lading with my field
notes as I forgot to put them in the
boxes I got your letter on Sunday and shiped
on Monday morning I have got some vary
fine cranias 5 in all I could not ship
on acount of room in the boxes will
send you a rough sketch of the field
and mounds I have not spent all
of the funds yet I have betwen thirty
and fourty dollars left which I shall
use on drakes creek whare it emties in
the cumberland river as soon as the
weather will permit of work which will
be the last of this month or early in febuary
evry body thinks when this once breakes
for good it will be all this kind of weather
we will have this winter then I will push
things I came in contact with our state officers
in buying a collection last week but they got
the start of me they payed $50.00 for it I would
have given $75.00 for it it had two large flints
like those I sent you last sumer 6 pipes
one stone image 16 in high and a large
quandity of other things, they are mad at
me I can buy a vary nice collection at
mcminvill this state if you wish me
to Please answer & oblige Yours &&&
E Curtiss

APPENDIX I

LIST OF RUTHERFORD-KIZER SITE REFERENCE BAG NUMBERS BY TENNESSEE DIVISION OF ARCHAEOLOGY ACCESSION NUMBER AND SITE PROVENIENCE, 1993–1995 TDOA INVESTIGATIONS

TDOA Accession Number and Site Provenience	Reference Bag Number	Other Comments
TDOA Accession Number 93-26-		
General site collection	50	
Monument	1	
Test Unit 1, Level 1	2	also known as test unit S15 W5, level 1
Test Unit 1, Level 2	3	also known as test unit S15 W5, level 2
Test Unit 2, Level 1	28	this reference includes bag numbers 65 and 82; this test unit also inside backhoe trench A.
Test Unit 3, Level 1	42	also known as test unit 19S 8E.
Fill, Strip Block A	4	
Fill, Strip Block B	5	this reference includes bag numbers 22, 24, 29, 33, 47, 54, 56, and 61.
Fill, Strip Block C	88	
Fill over Features 20 and 36	59	
Plow Strip A1	181	
Plow Strip A2	182	
Plow Strip A3	183	this reference includes bag number 52.
Plow Strip A4	184	
Plow Strip A5	185	
Plow Strip A6	186	
Plow Strip B1	187	
Plow Strip B2	188	
Plow Strip B3	189	
Plow Strip B4	190	
Plow Strip B5	191	
Plow Strip B6	192	
Plow Strip C1	193	
Plow Strip C2	194	
Plow Strip C3	195	
Plow Strip C4	196	
Plow Strip C5	197	
Plow Strip C6	198	
Plow Strip C7	199	
Plow Strip D1	200	
Plow Strip D2	201	
Plow Strip D3	202	
Plow Strip D4	203	
Plow Strip D5	204	
Plow Strip D6	205	
Plow Strip D7	206	
Plow Strip E1	207	
Plow Strip E2	208	
Plow Strip E3	209	
Plow Strip E4	210	
Plow Strip E5	211	

TDOA Accession Number and Site Provenience	Reference Bag Number	Other Comments
TDOA Accession Number 93-26- (continued)		
Plow Strip E6	212	
Plow Strip E7	213	
Plow Strip E8	214	
Plow Strip F1	215	
Plow Strip F2	216	
Plow Strip F3	217	
Plow Strip F4	218	
Plow Strip F5	219	
Plow Strip F6	220	
Plow Strip F7	221	
Plow Strip F8	222	
Plow Strip G1	223	
Plow Strip G2	224	
Plow Strip G3	225	
Plow Strip G4	226	
Plow Strip G5	227	
Plow Strip G6	228	
Plow Strip G7	229	
Plow Strip G8	230	
Plow Strip H1	231	
Plow Strip H2	232	
Plow Strip H4	233	
Plow Strip H5	234	
Plow Strip H6	235	
Plow Strip H7	236	
Plow Strip I2	237	
Plow Strip I3	238	
Plow Strip I4	239	
Plow Strip I5	240	
Plow Strip L9	241	
Plow Strip M4	242	
Backhoe trench A	101	also known as east backhoe trench.
Backhoe trench K	37	this reference includes bag number 49; also known as northeast backhoe trench (NE-BHT).
Backhoe trench L	163	this reference includes bag number 86; also known as west knoll, trench 1.
Backhoe trench M	164	this reference includes bag number 84; also known as west knoll, trench 2
Palisade Trench (southern)	90	this reference includes bag number 162.
Feature 1	13	
Feature 2	7	
Feature 3	20	this reference includes bag number 106.
Feature 4	9	
Feature 5	6	
Feature 6	8	
Feature 7	11	
Feature 8	16	
Feature 9	14	
Feature 10	12	
Feature 11	19	this reference includes bag number 109.
Feature 12	17	
Feature 13	15	
Feature 14	21	this reference includes bag number 92.
Feature 15	18	
Feature 16	83	

TDOA Accession Number and Site Provenience	Reference Bag Number	Other Comments
TDOA Accession Number 93-26- (continued)		
Feature 17	10	
Feature 18	152	
Feature 20	25	this reference includes bag numbers 26, 27, 31, 32, 41, 51, 55, 60, 63, 69, and 94.
Feature 21	117	this reference includes bag number 252.
Feature 26	118	this reference includes bag number 146.
Feature 27	119	this reference includes bag numbers 127 and 250.
Feature 28	112	this reference includes bag numbers 120 and 249.
Feature 29	121	this reference includes bag number 160.
Feature 30	122	this reference includes bag number 150.
Feature 34	123	this reference includes bag number 145.
Feature 35	124	this reference includes bag number 128.
Feature 36	40	this reference includes bag numbers 23, 43, 44, 45, 46, 62, 64, 67, 93, 95, and 105.
Feature 37	157	
Feature 39	58	this reference includes bag number 167.
Feature 40	246	
Feature 43	140	
Feature 44	154	
Feature 45	57	
Feature 46	141	
Feature 49	134	
Feature 50	137	
Feature 51	243	
Feature 52	129	
Feature 56	155	
Feature 57	126	
Feature 59	143	
Feature 62	139	
Feature 64	138	
Feature 66	142	
Feature 67	136	
Feature 68	144	
Feature 70	147	
Feature 71	133	
Feature 76	245	
Feature 80	153	
Feature 81	148	
Feature 82	125	
Feature 83	111	this reference includes bag number 151.
Feature 84	168	
Feature 86	156	
Feature 87	132	
Feature 88	244	
Feature 89	97	this reference includes bag number 98.
Feature 90	248	
Feature 91	159	
Feature 92	107	this reference includes bag number 169.
Feature 93	158	
Feature 95	251	
Feature 96	110	
Feature 100	135	
Feature 101	30	this reference includes bag numbers 34, 35, 36, 38, 39, 53, 80, 81, 91, 96, 99, 100, 101, 102, 108, and 113.
Feature 102	176	

TDOA Accession Number and Site Provenience	Reference Bag Number	Other Comments
TDOA Accession Number 93-26- (continued)		
Feature 104	85	
Feature 105	89	
Feature 106	174	
Feature 107	87	this reference includes bag number 170.
Feature 108	178	
Feature 109	130	
Feature 110	131	
Feature 112	104	
Feature 113	173	
Feature 114	179	
Feature 118	180	
Feature 119	172	
Feature 120	247	
Feature 122	77	no artifacts.
Feature 123	177	
Feature 124	103	this reference includes bag number 165.
Feature 126	161	
Feature 128	175	
Feature 129	166	
Feature 131	68	
Feature 136	149	
Feature 139	70	
Feature 140	171	
Feature 142	71	
Feature 143	76	
Feature 146	79	
Feature 150	75	
Feature 152	78	
Feature 156	72	this reference includes bag number 48.
Feature 157	73	
TDOA Accession Number 93-204-		
Feature 158	74	
General surface (west site area)	14	
General surface (south of road cut)	39	
Structure 5 interior	23	
Burial 11	7	
Burial 14	2	
Burial 17	9	
Burial 21	4	
Burial 22	3	
Burial 33	11	
Burial 34	1	
Burial 39	8	
Burial 53	5	
Burial 60	10	
Burial 61	6	
Feature 162	16	
Feature 194	29	
Feature 196	28	
Feature 211	36	
Feature 359	32	
Feature 360	35	
Feature 361	34	
Feature 365	38	

TDOA Accession Number and Site Provenience	Reference Bag Number	Other Comments
TDOA Accession Number 93-204- (continued)		
Feature 371	33	
Feature 392	31	
Feature 425	37	
Feature 500	15	
Feature 587	24	
Feature 588	21	this reference includes bag number 27.
Feature 694	18	
Feature 695	26	
Feature 696	22	
Feature 710	19	
Feature 715	13	
Feature 717	20	
Feature 863	30	
Feature 868	25	
Feature 880	12	
Feature 882	17	
TDOA Accession Number 95-45-		
General surface	13	
General surface (greenspace)	14	
Burial 11	3	
Burial 70	9	
Burial 72	10	
Burial 80	1	
Burial 81	2	
Burial 83	4	
Burial 85	5	
Burial 87	6	
Feature 739	11	
Feature 740	12	
Feature 741	8	
Feature 799	7	