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EDITORS CORNER

Kevin E. Smith and Michael C. Moore

We are delighted to devote the second issue of Volume 9 of *Tennessee Archaeology* to a special issue on the Mississippian culture of the Middle Cumberland Region – guest-edited by J. Scott Jones. We thank Scott for his efforts to bring several of the papers from his symposium together for this issue. In addition, we include the second research report from the Cave Archaeology Research Team at the University of Tennessee on the cave and open-air rock art of Tennessee. Simek et al. (this issue) includes an annotated version of their report presented at the 2006 Annual Meeting on Current Research in Tennessee Archaeology. As always, we appreciate the contributions of the authors and extend our thanks to the reviewers who help make this peer-reviewed e-journal possible.

We also take the opportunity to recognize the passing of several valued contributors to Tennessee archaeology since publication of our last issue. We extend our condolences to their family, friends, and colleagues. They will be missed.

David Paul “Doc” Johnson (29 Mar 1958-2 Jan 2017) was employed as an archaeological field technician with the Tennessee Division of Archaeology and DuVall & Associates, Inc. during the late 1980s and early 1990s, although his interest in “arrowheads” (particularly those of the Paleoindian and Early Archaic eras) spanned a much longer part of his life. He was among the first partners of the Tennessee Paleoindian Projectile Points and Site Survey Project after its creation in 1988 by the Division of Archaeology. “Doc” brought the attention of

archaeologists to a multicomponent Paleoindian and Early Archaic site on the banks of the Cumberland River that was well known to him -- a site that would be recorded as the “Johnson Site” (40DV400) in his honor (Broster et al. 1991; Broster and Barker 1992; Barker and Broster 1996). The Johnson site has since received significant national and even international recognition as one of the most important Pleistocene and Early Holocene sites in the eastern United States – and one of a handful of potential candidates for the elusive “Pre-Clovis” occupations of the region. By his request, Mr. Johnson was interred in Hill City Cemetery in South Dakota – the heart of his beloved Black Hills.

Louis Carl Kuttruff (1944-23 Jul 2017) of Baton Rouge, Louisiana, age 73, passed away in 2017 after an unsuccessful battle with cancer. A native of Louisiana, Carl received his BA degree in Geography and Anthropology from Louisiana State University in 1965 and then continued on to received his MA (1970) and PhD in Anthropology (1974) from Southern Illinois University, Carbondale.

Carl was profoundly influenced both personally and professionally by attendance of the 1959 Boy Scout World Jamboree in the Philippine Islands – followed by a round-the-world tour including Corregidor, Angkor Wat, the Taj Mahal, Egyptian Pyramids, Greek and Roman ruins, and the lava fields of Iceland. His archaeological fieldwork spanned over 51 years in Alabama, Arizona, California, Georgia, Illinois, Louisiana, Massachusetts, Missouri, New York, North Carolina, Ohio, South

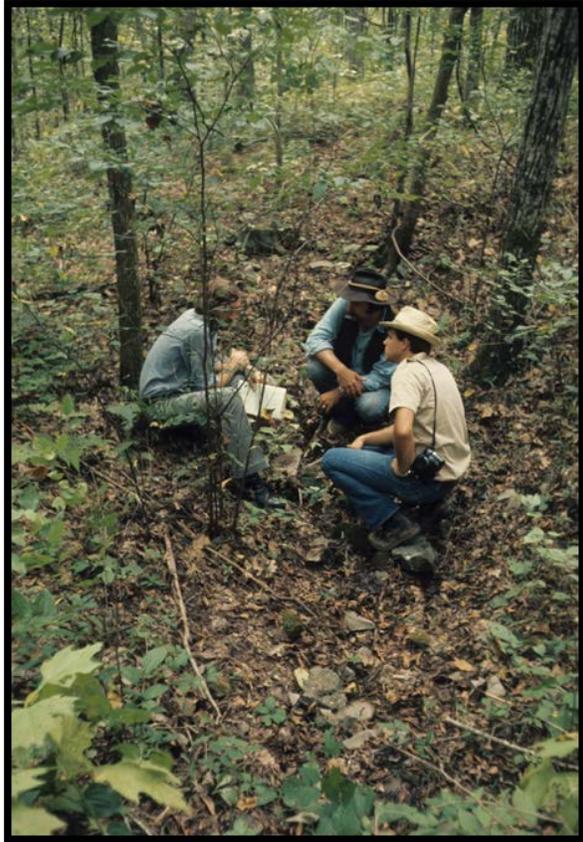


FIGURE 1. The first three regional archaeologists with the Division of Archaeology. Left to right: Carl Kuttruff, John Broster, and Brian Butler (Courtesy, Mack Prichard).

Carolina, Tennessee, Texas, Wisconsin, Oaxaca (Mexico), the Philippines, Wake Island, Kwajalein Atoll, and the Marshall Islands.

Carl's archaeological career in Tennessee began in 1973 when he was hired as one of the first three regional archaeologists with the Division of Archaeology (along with John Broster and Brian Butler; Figure 1). Working in partnership with Michael J. O'Brien and Vanderbilt University in 1974 and 1975, Carl would tackle investigating the newly acquired Mound Bottom State Archaeological Area – one of the largest Mississippian mound complexes in the interior southeastern United States

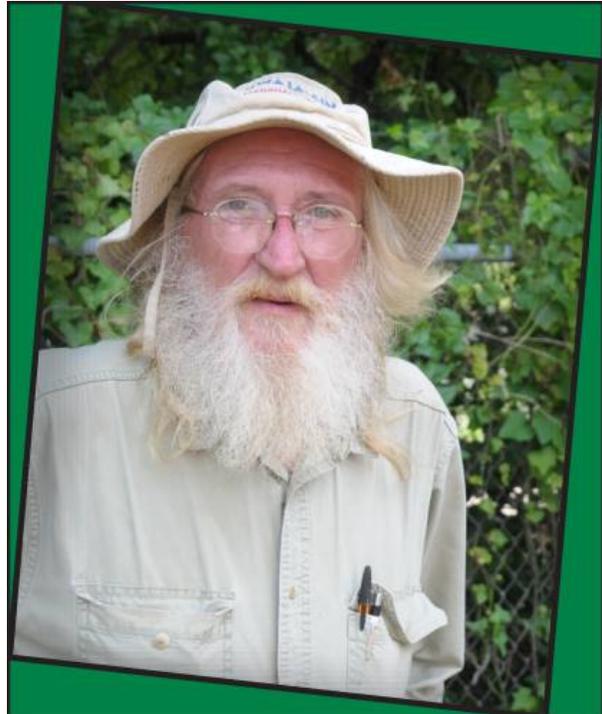


FIGURE 2. Carl Kuttruff (Courtesy, Guy Weaver)

(O'Brien and Kuttruff 2015). Not long thereafter in 1975-1976, Carl would begin his explorations of historic (military sites) archaeology with one of the largest field projects of his career – excavations at Fort Loudoun in Monroe County, a British colonial fort occupied from 1756-1760. Many untold years of research and writing later, that project would be published in his *magnum opus* (Kuttruff 2010). Carl's tenure (1973-1989) was during a critical period both of clarifying the official role of the Division of Archaeology and of beginning a nearly 50-year tradition of salvaging information from important unprotected archaeological sites threatened by private development. The number of "emergency" salvage projects he undertook is far too lengthy to recount here, but as an example, his efforts to save some information from the Brick Church Pike Mounds (40DV39) -- one of the most significant early Mississippian mound complexes in the region – stands

out in our minds. Again, many years later, he would partner with the late Gary Barker to publish the results of their investigations at that important site (Barker and Kuttruff 2010).

Among Carl's many contributions as organizer of conferences and symposia over his career, one of his most significant in Tennessee was working with Robert C. Mainfort, Jr. and Mary Beth Trubitt to bring the first Southeastern Archaeological Conference to Nashville in 1986. This memorable conference included a reception at the Tennessee State Museum showcasing the recently opened permanent exhibition "First Tennesseans" featuring a significant part of the Gates P. Thruston Collection and tours to Mound Bottom. When Carl's spouse Jenna accepted a position at Louisiana State University in 1989, he left Tennessee to return to more southern pastures and his birthplace in Baton Rouge.

According to one of his former students and long-time friends, during an evening discussion long ago, Carl indicated that his tombstone might read "Here is my burial pit, coffin, and vault. If the profiles aren't straight, it's not my fault." In reality, according to his family, Carl's cremated ashes were to be scattered at many places of importance during his life. Carl is survived by his wife Jenna; father Louis Carl, Sr.; sisters Gail, Alma, and Katty; and brothers, Kirby and Claude.

Duane Harold King (18 May 1947-17 Sep 2017) of Arcadia, California, age 70, passed away after a brief battle with lung cancer. Born in East Tennessee, Dr. King received his B.A. from the University of Tennessee and his M.A. and Ph.D. from the University of Georgia. An internationally recognized and passionate scholar of Cherokee language, history,

and art, he was a prolific author of more than 75 publications on Cherokee and Native American topics, museum studies, and was the founding editor of the *Journal of Cherokee Studies* in 1976.

Dr. King's distinguished career spanned appointments throughout the United States, including Director of the Museum of the Cherokee Indian in Cherokee, North Carolina; Assistant Director of the George Gustav Heye Center (National Museum of the American Indian) in New York City, Executive Director positions at the Thomas Gilcrease Institute of American History and Art in Tulsa, Oklahoma, the Middle Oregon Historical Society in Warm Springs, Oregon, the Cherokee National History Society in Tahlequah, Oklahoma, and the Southwest Museum in Los Angeles. Most recently, he served as the University of Tulsa's Vice President for Museum Affairs and Executive Director of the Helmerich Center for American Research. Dr. King also taught at the University of Tennessee in Chattanooga and Knoxville, Cleveland State College, Northeastern State University, and served as the first endowed Chair in Cherokee Studies at Western Carolina University.

Dr. King is survived by his wife, Lee Callander, and their children Travis and Angela King, sisters Judy Kinkead and Kathy Rooney, brother Perry King, and their spouses and children.

Charles Harrison McNutt III (11 Dec 1928-9 Dec 2017) of Memphis, Tennessee, age 88, passed away after more than 50 years of devoted service to the archaeology of Tennessee and the southeastern United States. Born in Denver, Colorado, Charles traveled the country with his military family in his early life. He ended up in Sewanee, Tennessee where he finished high school at Sewanee Military Academy. Although accepted to

West Point, he declined the appointment because of a high school football injury and then enrolled in the University of the South, graduating as valedictorian in mathematics in 1950. He then enrolled in the Department of Anthropology at the University of New Mexico, where he received his MA in 1954 after working on many projects in the Southwest. He then entered the doctoral program in anthropology at the University of Michigan, where he would study under Albert Spaulding and James B. Griffin – who introduced him to Poverty Point, Cahokia and the Southeastern Archaeological Conference.

His first teaching position was at the University of Tennessee in 1961, followed by a stint at Northern Arizona University. In 1964, McNutt returned to Tennessee as an Associate Professor at Memphis State University – where he worked with Charles Nash to begin the creation of what would eventually become both undergraduate and graduate programs in anthropology. McNutt returned to Tennessee at a critical point in the history of Tennessee archaeology – and participated in some important transformations from something that was previously largely hobbyist to something more akin to what we think of as modern scientific archaeology. He participated in the hiring of the first modern “State Archaeologist” with his appointment to the Tennessee Archaeological Advisory Council (TAAC; Figure 3).

Throughout his career, Charles would balance his national level scholarship on a variety of topics with his commitment to local, state, and regional archaeology. He was a central leader of the Mid-South Archaeological Conference and brought the proceedings of many of those meetings into print in edited volumes. As a long-time member of the TAAC, he



FIGURE 3. The first Tennessee Archaeological Advisory Council in 1972. L to R: Travis Binion (Tennessee Archaeological Society); Robert Ferguson (Southeastern Indian Antiquities Survey – now the Middle Cumberland Archaeological Society); Dr. Charles McNutt (Memphis State University); Dr. Ron Spores (Vanderbilt University); Dr. Alfred K. Guthe (McClung Museum, UT Knoxville). Courtesy, Mack Prichard.

pushed strongly for creation of the Annual Meeting on Current Research in Tennessee Archaeology. Shortly after the first meeting in 1988, McNutt would lead the discussions to create a statewide professional organization – the Tennessee Council for Professional Archaeology.

Originally envisioned by McNutt as the Tennessee Council of Professional Archaeologists, he listened to the voices of avocational archaeologists and encouraged the shift to a more inclusive organization of all individuals who supported the ethics of professional archaeology and the “of” became “for.” While a staunch defender of professional archaeology, he balanced those ethics with his belief that responsible avocational archaeologists had important information to contribute.

McNutt’s work strongly emphasized the necessity of well-developed culture



FIGURE 4. Charles McNutt and Kevin Smith at his “Lifetime Achievement Award dinner,” 2012 Southeastern Archaeological Conference. Courtesy, Robert V. Sharp.

histories – often through the use of statistics -- in order to pursue the comparative questions of culture process. A comprehensive list of his publications would fill many pages and span a significant portion of the United States including the Southwest, the Great Plains, and the Southeast. His prolific publishing record continued and perhaps even expanded after his retirement as Professor Emeritus from the University of Memphis in 1998. Most recently, he completed his work on an edited Mid-South Archaeological Conference proceedings volume with Ryan Parish titled *Cahokia in Context: Hegemony and Diaspora* (forthcoming).

His accomplishments have been recognized with many awards, including a Career Achievement Award from the Tennessee Council for Professional Archaeology in 2005, and the Southeastern Archaeological Conference in 2012 (Figure 4). Probably his greatest legacy, however, are the hundreds of students mentored and trained during his

tenure as a professor – many of whom continue to carry on his tradition of excellence. We would be remiss to close without mentioning his lifelong love of the banjo and “string bands.”

Acknowledgements. Our thanks to “Doc” Johnson’s sister, Linda Cartwright, for assistance. We have also relied in part on Dye (2018), Gibson and Shuman (2018), and Tulsa World (2018) for some factual information.

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MIDDLE CUMBERLAND MISSISSIPPIAN ARCHAEOLOGY

Introduction to a Special Issue

J. Scott Jones

This special issue is the product of the symposium *Mississippian Archaeology of the Middle Cumberland Region in Tennessee* held at the 2016 Southeastern Archaeological Conference in Athens, Georgia (Figure 1). The symposium was organized in response to a perceived ongoing lack of attention to the Middle Cumberland Region in the Mississippian literature. This was first brought to my attention many years ago as an undergraduate when one of our discussants, Dr. Kevin E. Smith, showed me a figure in his 1992 dissertation appropriately titled *The Middle Cumberland Region: Mississippian Archaeology in North Central Tennessee* in which he circled the Middle Cumberland region in regard to this very fact. Unfortunately, a review of Mississippian literature twenty-five years later reveals a similar picture despite the numerous reports of investigations published by the Tennessee Division of Archaeology that detail Mississippian archaeological projects as well as articles published in *Tennessee Anthropologist*, *Tennessee Archaeology*, *Southeastern Archaeology*, and *Midcontinental Journal of Archaeology*.

This volume represents the first attempt at a synthesis of the Middle Cumberland Mississippian culture since Smith's aforementioned dissertation. Prior to this, Robert Ferguson's 1972 edited volume *The Middle Cumberland Culture* was the only Middle Cumberland Mississippian overview despite research in the Mississippian archaeology of the

region since the 19th century. It is quite clear that it is high time for another attempt to bring this uniquely interesting and important late prehistoric period to light. The publications mentioned above have provided a tremendous amount of information ready for a new synthesis of the archaeological record of the region. Thanks to these authors and contributors of these works, we can ask new questions, provide new perspectives, and raise a renewed awareness of the Middle Cumberland region Mississippian archaeology. In this volume we have a combination of new studies based on existing information as well as papers presenting new data for the region.

In the symposium, nine papers and two discussants including Kevin E. Smith and James Brown (who was unable to attend), were scheduled. Ultimately we were able to compile five of the presentations and a substantially revised version of Smith's discussion for six papers for this volume. The first paper is J. Scott Jones' "Interpretation of the Structure and Variation of Middle Cumberland Mississippian Stone-box Cemeteries". In this paper, Jones compares and contrasts burial orientations for a number of the ubiquitous stone-box cemeteries of the region. Burial patterns do not appear to be haphazard and are interpreted as representing cultural processes. Deter-Wolf et al. present new information derived from LiDAR data at the Mound Bottom and Pack sites in their paper "Return to the "Great Mound Group": New Investigations



FIGURE 1. Symposium board at the 2016 Southeastern Archaeological Conference.

of the Mound Bottom/Pack Landscape”. In this paper, the potential for new research focused upon identification of possible palisade location as well as unidentified or re-discovered mounds is addressed. Michael Moore’s paper “A Preliminary Assessment of Mississippian Settlement in the Little Harpeth River Watershed: The Inglehame Farm Site (40WM342) Revisited” presents an overview of the archaeological investigations at this relatively recently discovered Middle Cumberland village. Sarah Levithol Eckhardt and Hannah Guidry present the results of a continuing theme from the Middle Cumberland region. Salvage archaeology of stone-box burials and associated occupations at the Copper Creek site in Sumner County is one of the latest such projects in the Middle Cumberland region. Giovanna M. Vidoli and Heather Worne address the

relationships between the population history at the well-known Averbuch site. Vidoli and Worne identify who these people were and the relationships with health and traumas of the site’s population. Finally, Kevin E. Smith and Michael C. Moore provide an overview and historical perspective from the discussant’s point of view.

This volume is not meant to be a final word on Middle Cumberland Mississippian archaeology. To the contrary, it is hoped that this volume may stimulate more research into the Middle Cumberland Mississippian record. Middle Cumberland sites are becoming more and more endangered every day with the emergence of Nashville as the “it” city. Unprecedented growth not only in Davidson County, but the entire northern Middle Tennessee region has resulted in numerous Middle Cumberland sites being destroyed with minimal or salvage investigations. While much of this unique archaeological record has disappeared, a renewed and revitalized interest in the Middle Cumberland region may preserve what remains.

Acknowledgements. I want to offer a big thank you to everyone for participating in the symposium and making it a success despite the scheduled time. My thanks go out to our discussants, Dr. Kevin Smith and Dr. James Brown (although he was unable to attend). Finally, thanks to Dr. Kevin Smith and Mr. Mike Moore for allowing this symposium to be published as a special issue of *Tennessee Archaeology*.

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INTERPRETATION OF THE STRUCTURE AND VARIATION OF MIDDLE CUMBERLAND MISSISSIPPIAN STONE-BOX CEMETERIES

J. Scott Jones

The stone-box burial and cemetery is a ubiquitous characteristic of the Middle Cumberland Mississippian occupation. While stone-box burials are well-documented across much of the southeastern U.S., the classic form of stone-box burial known as the Cumberland type are distinctive to the Middle Cumberland Region. Furthermore, the Middle Cumberland Region is unrivaled in the number and size of stone-box cemeteries. Numerous reports describing stone-box cemeteries and concomitant excavations and studies evaluating the form and construction, distribution of stone-box burial types, as well as the health and demography of the makers and occupants of the stone-box cemeteries are available. However, no evaluations aimed at the interpretation of the structure and variation represented within and between stone-box cemeteries have been conducted. This study is an initial attempt to recognize and interpret variability within this aspect of Middle Cumberland Mississippian culture.

The stone-box burial and cemetery is a ubiquitous characteristic of the Middle Cumberland Mississippian occupation (Figure 1). While stone-box burials are well-documented across much of the southeastern U.S., the form of stone-box burial known as the Cumberland type is distinctive to the Middle Cumberland Region. Furthermore, the Middle Cumberland Region is unrivaled in the number and size of stone-box cemeteries. Previous Middle Cumberland mortuary studies have approached the diversity and distribution of stone-box burial varieties (Brown 1981; Dowd 2008; Smith 1992), bioarchaeological data (Breitburg and Moore 1998; Breitburg et al. 1998; Eisenberg 1991), distributions of grave goods (Smith 1992), variation in disposal patterns between site types (Smith 1992), and analysis of specific sites or cemeteries (Benthall 1987; Broster 1988; Dowd 1972; Jones 2017; Moore 2005; Moore and Breitburg 1998; Moore and Smith 2001). However, no evaluations aimed at the interpretation of the structure and variation represented within and between stone-box cemeteries have been conducted. As noted by Brown (1981),

few syntheses of the stone-box burial practice are available and that reconstruction of the cultural significance of the stone-box grave phenomenon is difficult if not impossible. This study is an attempt to recognize and interpret variability within Middle Cumberland Mississippian stone-box cemeteries.

Hypothesizing Mortuary Behavior

It is hypothesized that the structure and organization of Middle Cumberland stone-box cemeteries is not random, but reflects patterns of the nature of Mississippian sociopolitical and economic organization within the region. While a significant amount of variability is evident, patterns not necessarily immediately evident are present within the sample.

Goldstein (1980:11) states that “the spatial analysis of mortuary sites can be a powerful and productive tool in both interpretation and excavation of complex prehistoric social systems.” This is due to the widely accepted idea that “mortuary sites, too, reflect a spatial differentiation of activities and a differentiation of the social units performing the activities” (Goldstein

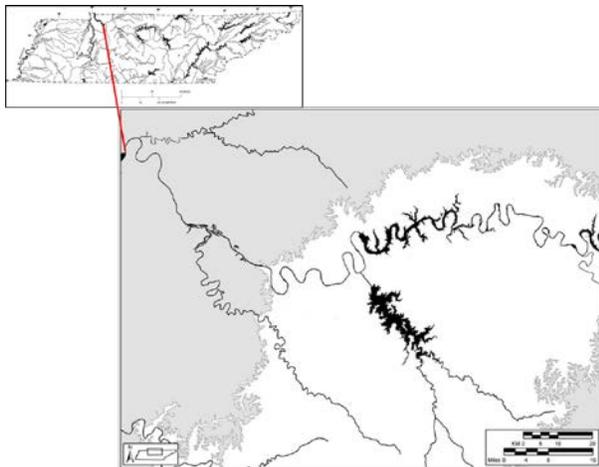


FIGURE 1. Middle Cumberland Region, North-central Tennessee.

1980:7). Thus, examination of the spatial dimensions of mortuary practices can yield information on two levels (Goldstein 1980:7): (1) the degree of formality, spatial separation, and ordering of the disposal area (i.e. cemetery), considered as a unit, may reflect organization principles of that society; and (2) the spatial relations of individuals to one another within the disposal area can reflect status differentiation, family groupings, lineal descent groups, or special classes.

Furthermore, investigation of a complex system is best approached by analysis of a small site within the system, determine the organization principles within, and apply these to a larger area (Goldstein 1980:10). In this manner, a more comprehensive picture of the entire social system in question can emerge. It is important to define the specific variables employed in the spatial analysis of a single site so these can be extended to the regional social system.

Methods

In this study, analysis consists of comparison of the structure of stone-box cemeteries. Structure here refers to how

organized a cemetery is through the orientation of burials within each cemetery. Burial orientation is determined by the degrees east of north of the cranium direction. In order to organize this data, the 360° is divided into 50 groups and number of burials within each group determined and plotted on radial-style graphs. Diversity analysis is conducted with each cemetery to determine how structured and degree of organization within each cemetery as well as variability between cemeteries. The higher the number of burials within particular degree increments and the less the number of degree increments represented, the less the diversity. The greater the number of degree increments represented along with the number of burials, the greater the diversity. Furthermore, cemeteries or burial populations must contain at least 20 individual burials within a discrete cemetery to be considered large enough to provide a reliable sample size for the diversity analysis.

A second level of analysis includes the type and distribution of burial goods in association with structure to further explore cemetery variability. Grave good distribution is compared between cemeteries determined to exhibit significant structural differences in order to recognize additional variation related to culturally determined dimensions of mortuary behavior. Demography and health within the entire sample is not evaluated due to a lack of standardization and data.

The Middle Cumberland Data Set

Fourteen archaeological sites with associated stone-box cemeteries or stone-box cemeteries without an associated site have been investigated since the inception of the state cemetery

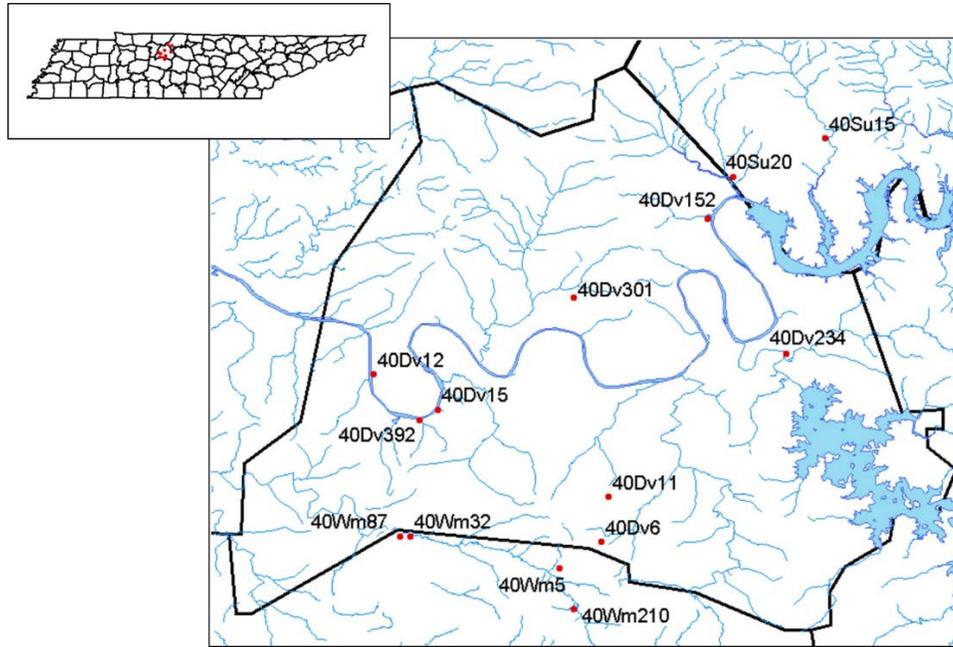


FIGURE 2. Middle Cumberland Mississippian sites discussed in the text.

statutes (Moore 1989, 1998) as well as previous investigations (Figure 2). The entire range of sites represented is considered important as nearly the entire expected site type variability and occupation is present. These sites include a single large mound site (Rutherford-Kizer [40SU15]); three palisaded villages (Gordontown [40DV6], Brentwood Library [40WM210], and Moss-Wright [40SU20]); six non- or indeterminate palisade village or hamlets (Traveler's Rest [40DV11], Kelley's Battery [40DV392], Ganier [40DV15], Arnold [40WM5], Parrish [40DV152], Hooper [40DV234]; and four cemetery-only investigations (West [40DV12], 40DV301, 40WM32, and 40WM87). The Kelley's Battery site is unique in the sample in that two discrete stone-box cemeteries are present. Notably absent is the Averbuch site (40DV60). Pertinent data from Averbuch were not available at the time of this analysis.

Ultimately, 431 individual burials of a possible 987 are present within this sample in which burial orientations could

be determined (Figures 3 and 4). Burial orientations could be determined for nearly the entire population of Gordontown (40DV6). However, it is not considered in the structural evaluation as the large primary cemetery at Gordontown (40DV6) was left in greenspace while the remaining burials were distributed throughout the site in smaller, possible family groups that do not contain 20 individuals with the exception of one concentration (Feature 22). The Brentwood library site (40WM210) also exhibited an extensive number of burials that were widely distributed. Ganier (40DV15) is not considered in the structural analysis due to an extensive amount of disturbance within the published cemetery map and numerous burials in which orientation could not be determined. Rutherford-Kizer (40SU15) was also extensively disturbed with a lack of appropriate data. The burial populations at Travelers Rest (40DV11) and 40WM87 are too small to be included in the structural analysis.

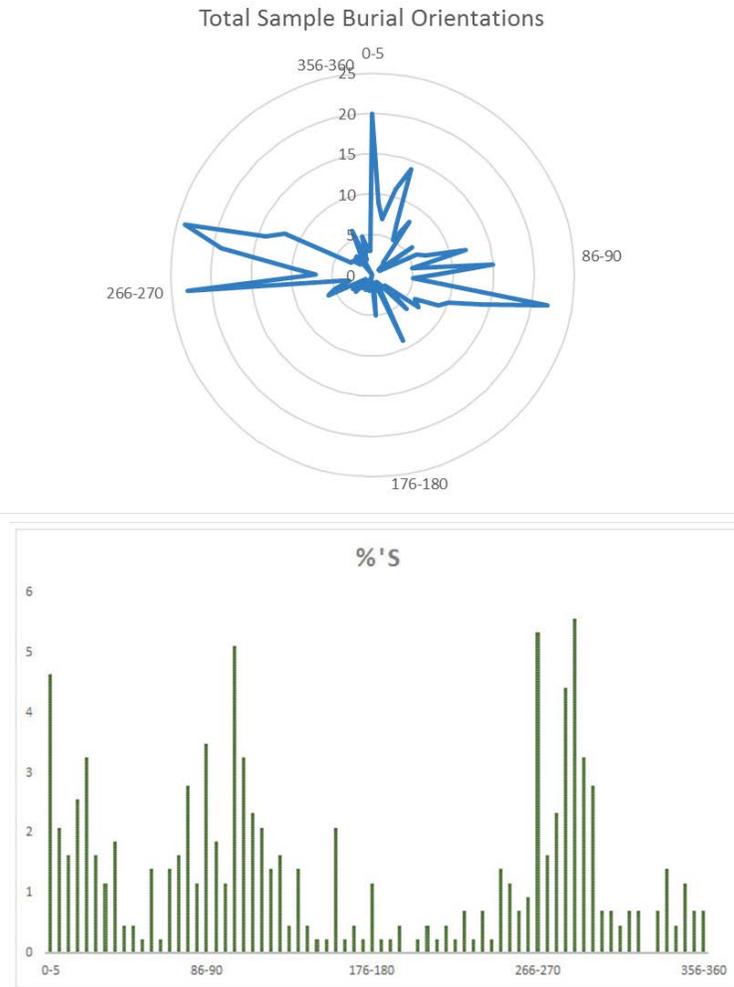


FIGURE 3. Burial orientations of entire population sample.

Results of the Structural Analysis

Eight stone-box cemeteries provided the necessary data to evaluate structure and organization. Structure and organization was evaluated through diversity analysis. Both richness and evenness values are computed by JKDiver following Kaufman (1998). Richness is calculated as $R = k/\sqrt{N}$ where k = the number of groups in jackknifing and N = sample size. Evenness is calculated as the coefficient of variation (standard deviation divided by the mean) for the sample. The JKDiver program also allows one to compare the sites in

question using analysis of variance (ANOVA) and t-test statistics.

ANOVA of the diversity scores indicated significant differences between the sites in terms of richness ($F = 21.7995$; $df = 8, 184$; $p < .0001$), but not evenness ($F = .9908$; $df = 8, 184$; $p = .4447$). T-tests can be used to determine where the differences are occurring in terms of richness. Site 40DV392B had the highest richness score. The next closest was 40DV301. A t-test between these two sites was significant ($t = 7.5854$; $df = 48$; $p < .0001$, two-tailed test). This indicates that 40DV392B is richer (more diverse) than any of the other sites. Sites

40DV301, 40DV152, 40SU20, 40DV12, and 40WM32 are all relatively similar in terms of richness. Sites 40DV234 and 40DV392A are relatively similar, but less rich (less diverse) than the main group of sites. A t-test was computed between 40DV234 and 40SU20 (the next highest score). The test indicated significant differences between these two sites ($t = 2.04$; $df = 39$; $p = .0482$, two-tailed test).

The diversity analysis indicated significant differences between the sites in terms of richness. Three groupings of sites can be suggested: (1) 40DV392B (Figure 5); (2) 40DV301, 40DV152, 40SU20, 40DV12, and 40WM32 (Figure 6); and (3) 40DV234 and 40DV392A (Figure 7). Site 40DV392B has the greatest number of different grave orientations and highest diversity. Sites 40DV234 and 40DV392A have the least number of grave orientations and lowest diversity.

Site	Richness	Evenness	Group
40Dv392B	7.3661	0.6278	1
40Dv152	4.9033	0.9159	2
40Dv301	4.9051	0.5228	2
40Wm32	4.6182	0.4476	2
40Su20	4.3763	1.0953	2
40Dv12	4.052	1.2544	2
40Dv234	3.5424	0.9446	3
40Dv392A	3.4589	0.822	3

FIGURE 4. Sites organized into three groups based upon statistical analysis.

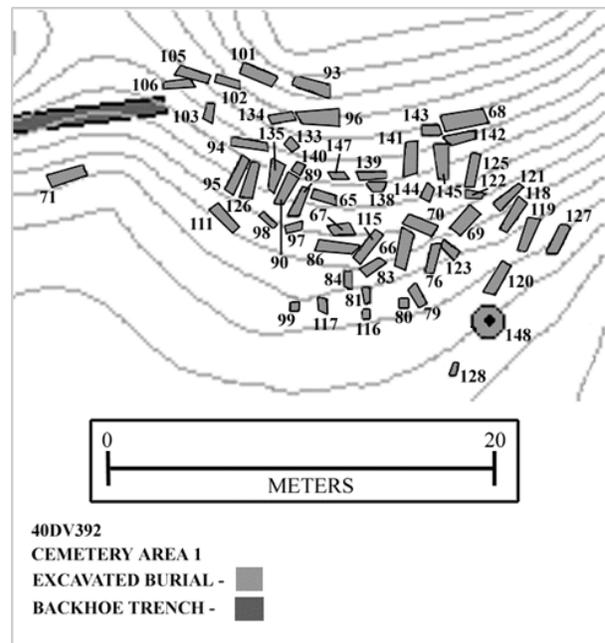
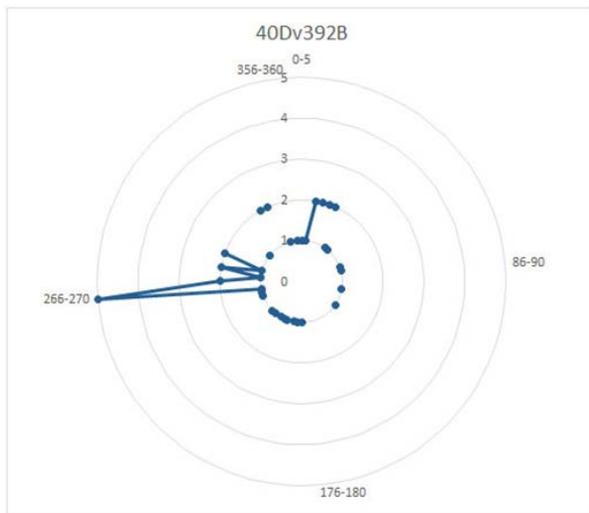
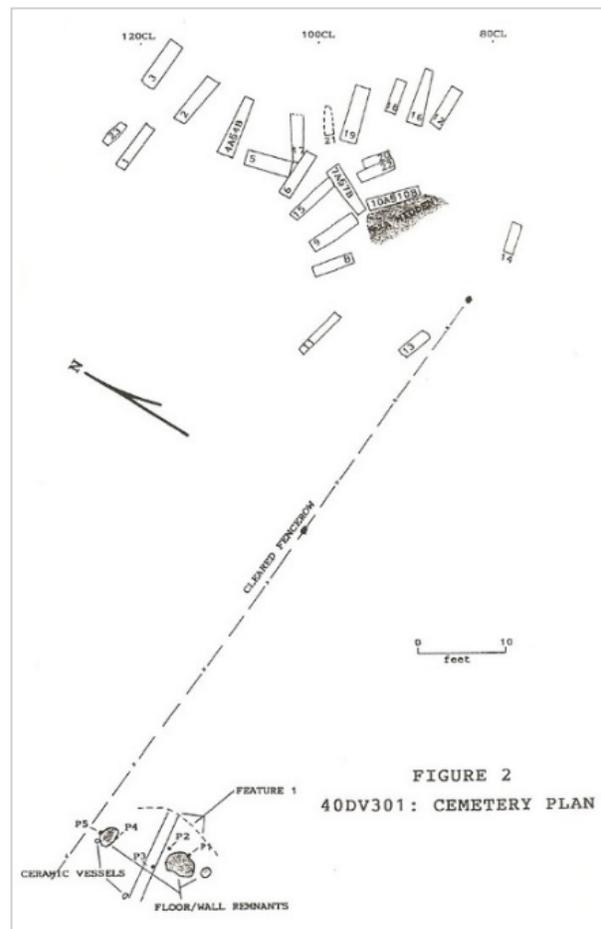
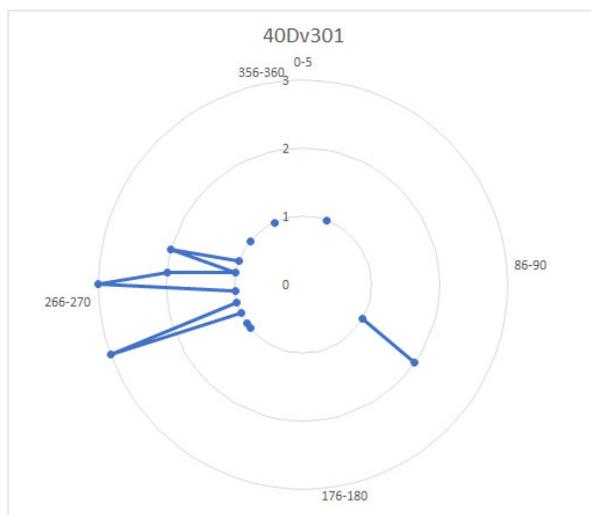


FIGURE 5. Burial Group 1 (40Dv392B).



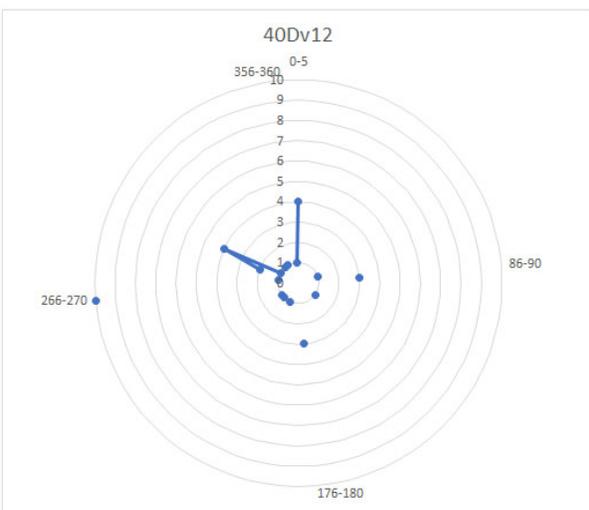
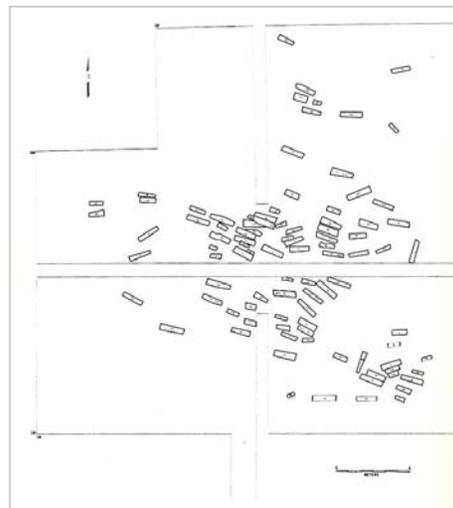
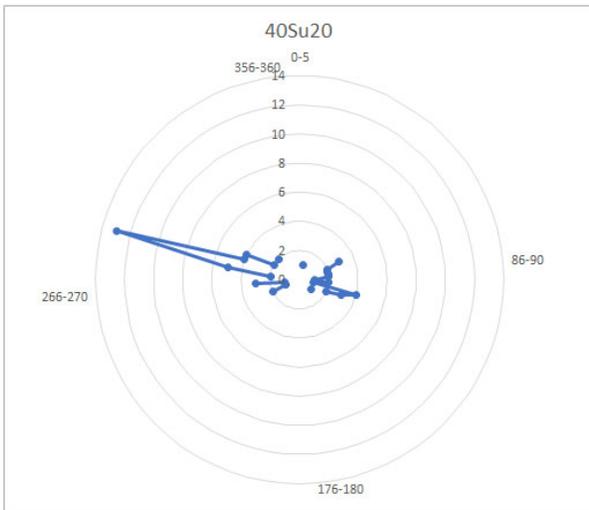
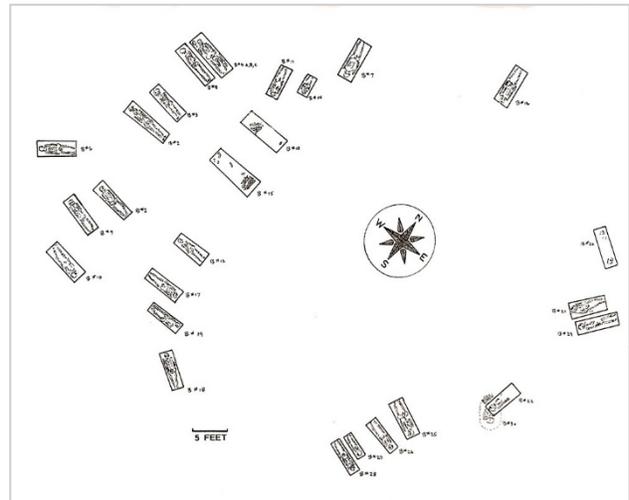
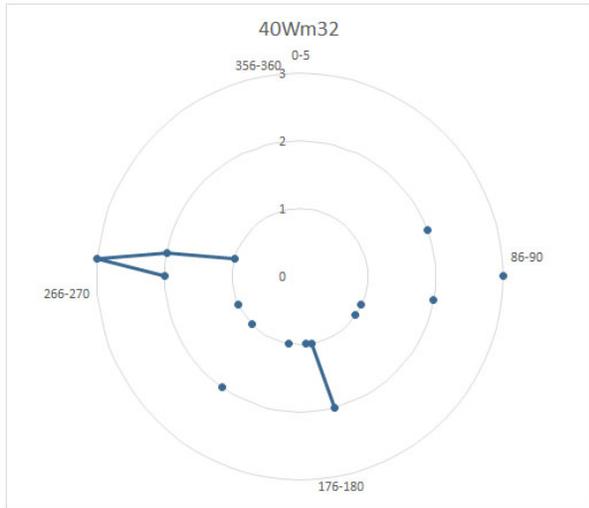


FIGURE 6. Burial Group 2 (concluded).

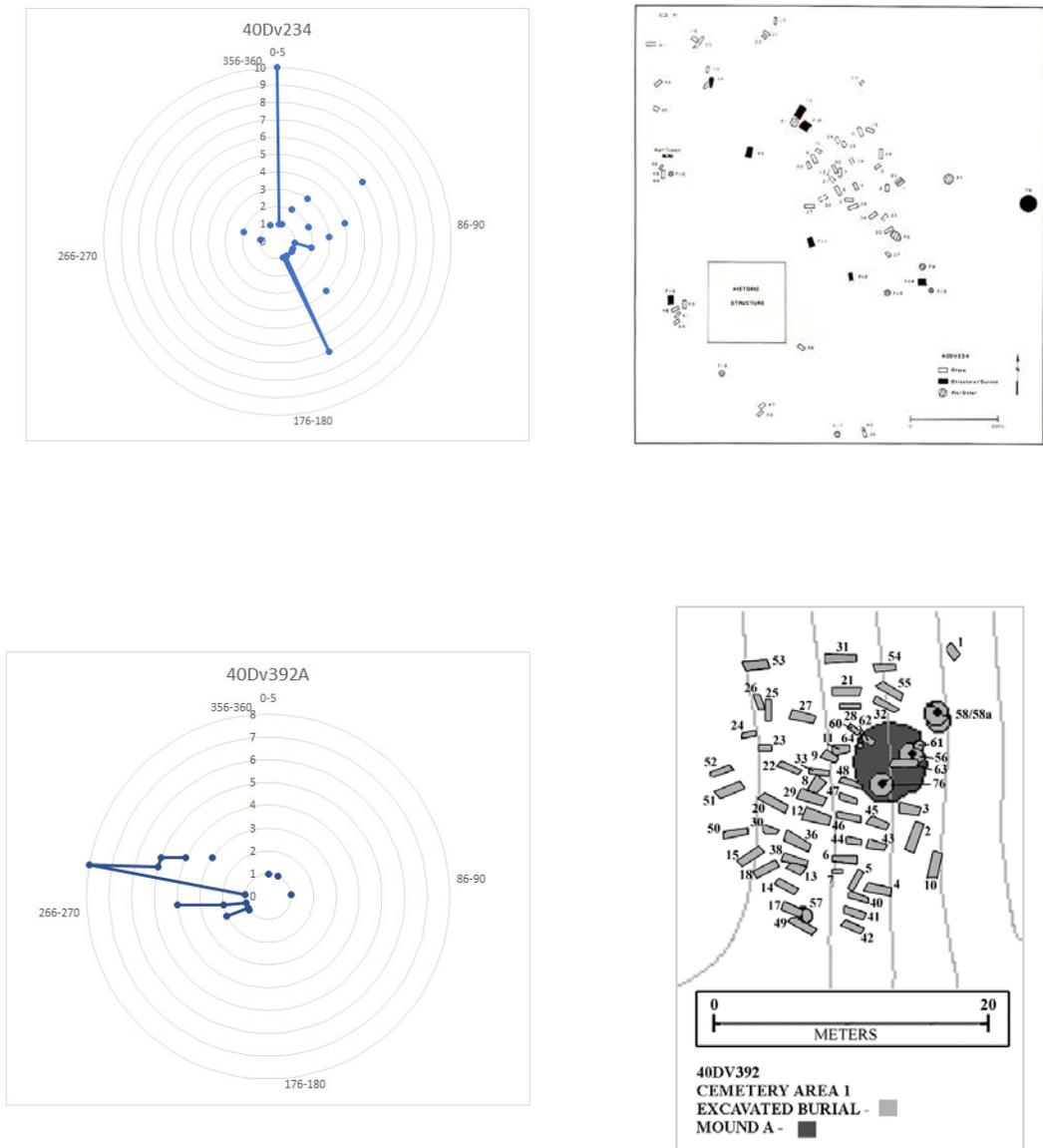


FIGURE 7. Burial Group 3.

Factors Affecting Cemetery Organization

Factors affecting the organization can be “physical” as well as sociopolitical/economic, with “physical” meaning that burials are the result of physical conditions dictating the structural nature of cemeteries. This may be the product of numerous interments being made quickly so that burials are laid symmetrically in rapid succession. Factors responsible for such a scenario could be drought/famine, pathological/infectious epidemics, or warfare. Interments may or may not have been marked with some sort of grave marker. As such, the opposite is true as well. Cemeteries that have a greater time depth with individuals interred over a longer period may not exhibit the same degree of organization and structure. Wooden or otherwise non-permanent grave markers would likely not survive. Orientations and locations of individuals could have been forgotten over the course of generations.

Sociopolitical factors may also affect structural variability. Differences in status not only could produce quantitative differences in grave goods but how individuals are interred. Variation could be the product of agency-oriented behavior. Social identity or persona of individuals are intimately linked with group affiliation. These individual and group identities can be derived from the archaeological record when the mechanisms for conveying this sort of social information are determined. Variation between individuals and groups in mortuary contexts may provide access to this sort of social information.

Exploring Structural Variation

The greatest distinction within the data set explored here is the Kelley’s Battery

site (40DV392) and the two excavated cemeteries (Figure 8). A total of 141 burials yielded the remains of 173 individuals at the Kelley’s Battery site. The clear majority of burials are the typical stone-box interments ($n=128$). Cemetery A is a stone-box cemetery of moderate size located at the western periphery of the site. Fifty-seven burials yielded the remains of 64 individuals. All but two burials are of the stone-box variety. Cemetery B is also a moderately-sized stone-box cemetery in the northwest portion of the site. Sixty-seven burials, producing the remains of 88 individuals, were excavated from this locale. Six burials excavated in this particular cemetery were not interred in a stone-box facility. Demographic and physiological analysis did not show any particular differences between the cemetery areas. Seventeen burials (21 individuals) from the village/habitation area were not considered for this analysis.

Cemetery A exhibited the least amount of diversity within the entire sample dataset while Cemetery B exhibited the greatest amount of diversity within the entire sample dataset. It is postulated that the variation between these two cemeteries within the same site is the product of both physical as well as sociopolitical/economic factors.

The overall general symmetry of Cemetery A suggests these burials could have been interred within a short amount of time. Few burials overlapped or were imposed upon each other. Interpersonal violence or trauma does not seem to have been a major factor in this population’s health. Pathologies do not appear to be more significant in this group when compared to other Middle Cumberland populations. Drought/famine could be a factor in a large number of individuals being interred quickly. Furthermore these

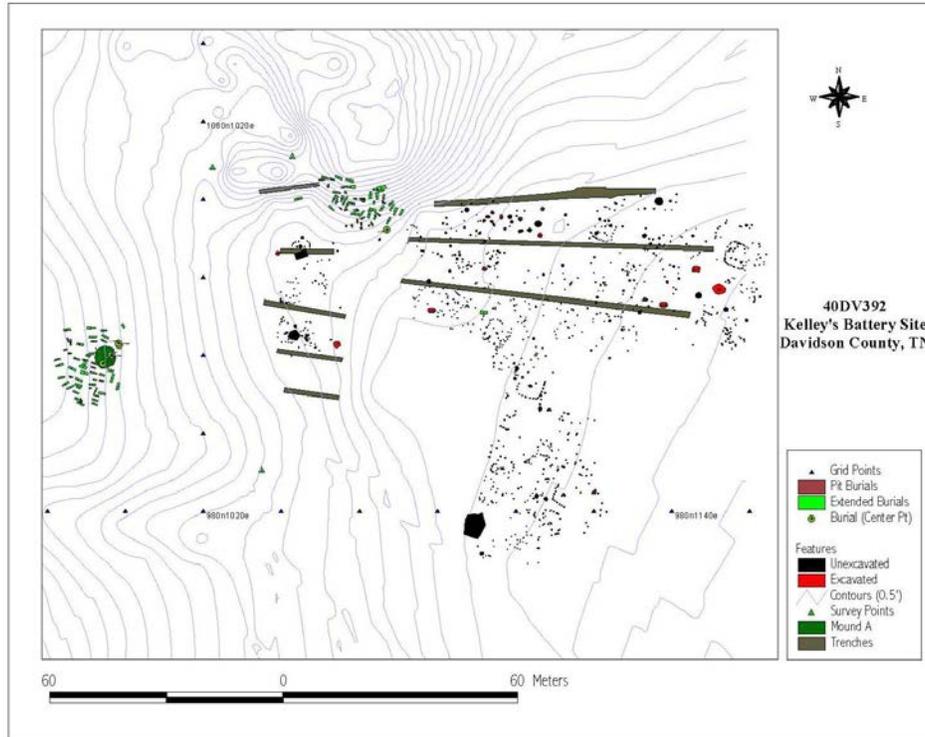


FIGURE 8. Kelley's Battery (40Dv392) site map

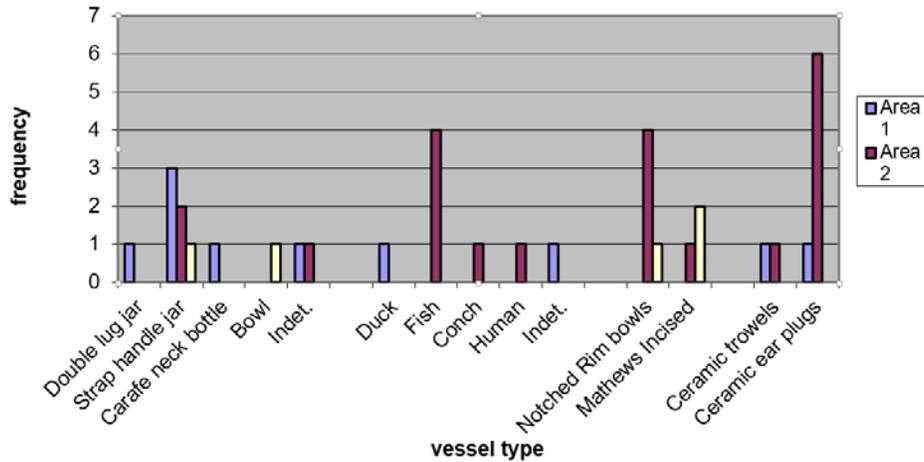


FIGURE 9. Distribution of ceramic vessel by type and provenience

burials could have been marked in some form or fashion.

Sociopolitical factors also appear to have been an important factor in the structure variability at Kelley's Battery. Aside from the structural variation, grave good distribution most clearly demonstrates the variability between the

two cemeteries. A total of 33 burials produced grave goods, with ceramic artifacts the most numerous (Figure 9). Area 1 exhibits a tendency for plain vessels including strap handle jars ($n=3$), a double lug jar ($n=1$; Figure 10A), carafe necked bottle ($n=1$; Figure 10B), and an indeterminate vessel ($n=1$). Single

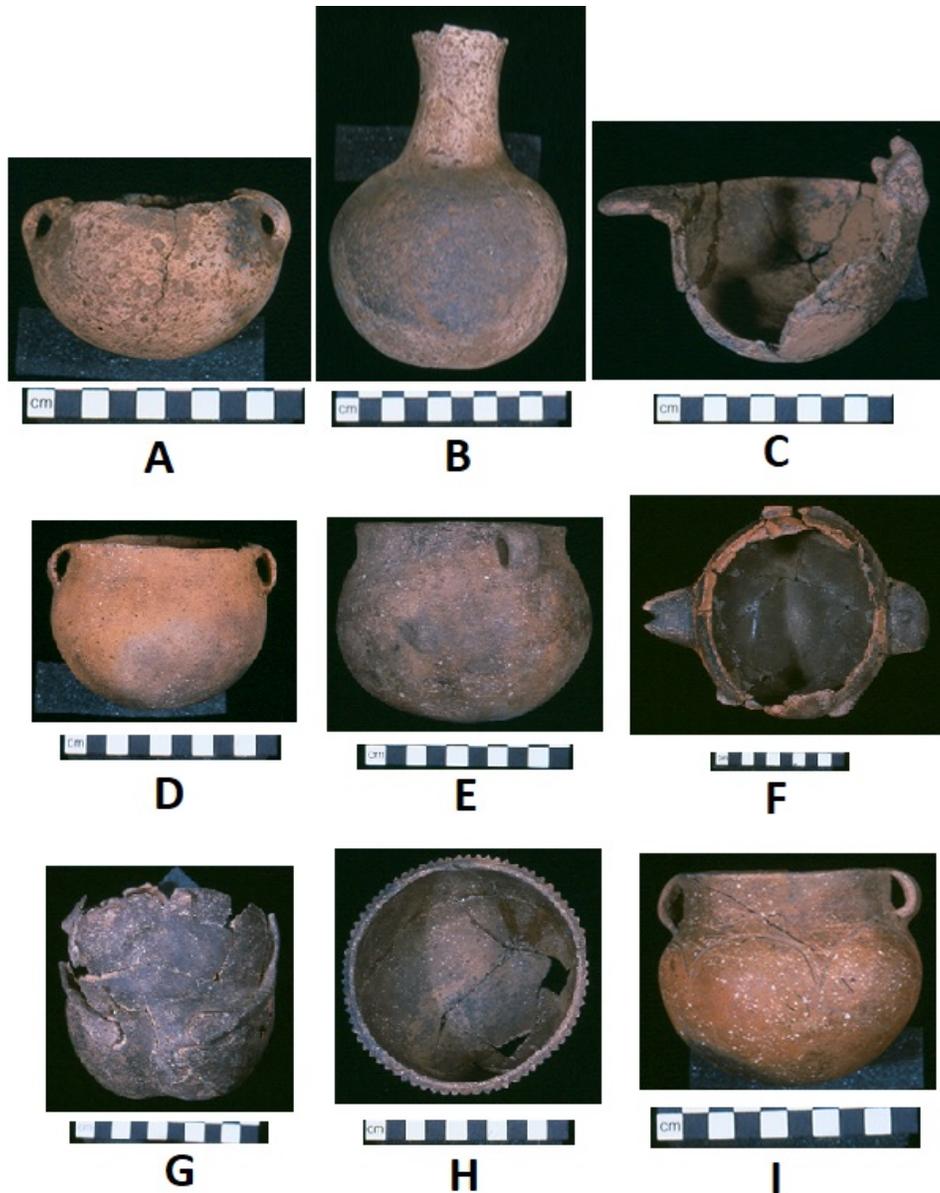


FIGURE 10. Selected ceramic vessels from 40DV392.

examples of duck (Figure 10C) and indeterminate effigy vessels also occur in Area 1 as well as an ear plug and ceramic trowel.

Plain vessels in the form of strap handle jars ($n=2$; Figures 10D and 10E) and an indeterminate vessel are present in Area 2. The most striking feature of ceramic vessels in Area 2 is the restriction of effigy bottles to this cemetery, comprising fish ($n=4$; Figure 10F), conch

($n=1$), and human hooded bottle ($n=1$; Figure 10G). The majority of notched rim bowls ($n=4$; Figure 10H) as well as a single Matthews Incised var. *Matthews* vessel ($n=1$; Figure 10I) are also present. Furthermore, ear plugs ($n=6$; Figure 11) are largely limited to Area 2 while a single ceramic trowel occurs in this area. Preferences for specific effigy types (fish, conch, and human) are restricted to Area 2. The majority of ear plugs as well as



FIGURE 11. Ear plugs (top row: burial 44, burial 101, burial 117, burial 44; bottom row: burial 137, burial 137, burial 141B)

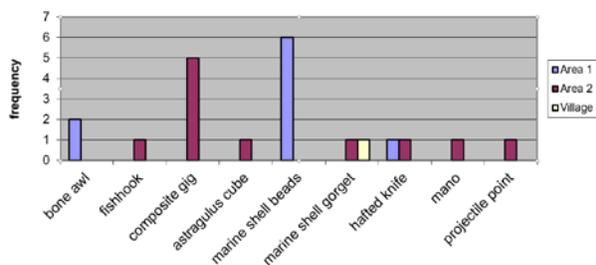


FIGURE 12. Distribution of bone, stone, and shell artifacts

notched rim bowls also occur in this area. Although plain vessels are present in Area 2, these are restricted to strap handle jars and indeterminate vessels. A variety of vessel forms occur in Area 1, but a tendency for plain vessel types is evident. Different effigy forms (duck, indeterminate) are present in Area 1 as well as a single ear plug and ceramic trowel.

Shell, stone, and bone artifacts are also present (Figure 12). Non-ceramic artifacts recovered from Area 1 include bone awls ($n=2$), marine shell beads ($n=6$; Figure 13A) from a single burial, and a large hafted bifacial knife ($n=1$). Area 2 produced a fish hook and five “pins” that composed a composite gig, all from a single burial (Figure 13B). Other items from Area 2 include an astragulus cube, marine shell gorget (Figure 13C), bifacial hafted knife, mano, and a projectile point.

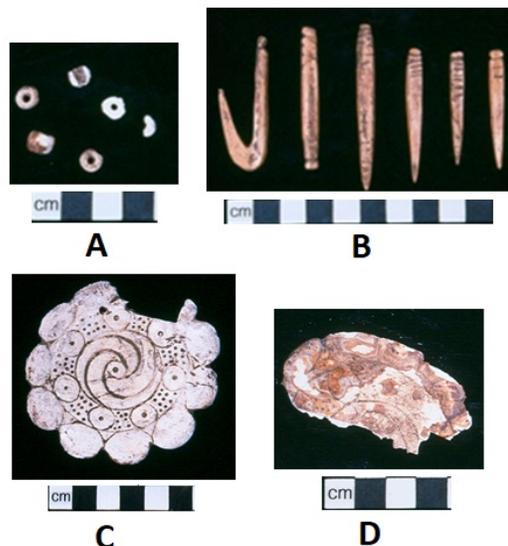


FIGURE 13. Selected shell and bone artifacts (40DV392)

The only non-ceramic item from the village burial was a marine shell gorget (Figure 13D).

The most apparent feature of the non-ceramic artifact distribution is the marine shell artifacts. These artifacts are manufactured from non-local material and are distributed across the three disposal areas. The two marine shell gorgets are characteristic of the Nashville or “scalped triskele” style.

Conclusion

Meaningful variation in stone-box structure appears to be present within the sample of stone-box cemeteries evaluated here. Distinct differences in structure and grave good distribution between the two cemeteries at the Kelley’s Battery site is evident. When considered along with the structural variation, these two cemeteries most clearly reflect variation within mortuary programs of the Middle Cumberland Mississippian peoples. The two cemeteries within a single village site

most clearly reflect contrasting mortuary patterns. Whether this represents sociopolitical, economic, natural, or physical factors remains to be determined. However, the modes of interment as well as grave good association suggests that the different burial areas reflect different rules for mortuary behavior for particular social or kin groups in the study region. Significant work remains to further explore the variation within cemeteries and sites that do not as clearly demonstrate the type of variability exhibited at the Kelley's Battery site.

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RETURN TO THE GREAT MOUND GROUP: 2016 INVESTIGATIONS AT MOUND BOTTOM STATE ARCHAEOLOGICAL AREA

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The Mound Bottom site is located along the Harpeth River west of Nashville, and with the adjacent Pack site comprises the largest Mississippian mound complex in the Nashville Basin during the eleventh through fourteenth centuries AD. The initial formation of these sites ca. AD 1000 may be tied to the arrival of Mississippian colonizers who carried with them influences seminal to the formation of the Middle Cumberland Mississippian culture. Despite its apparent importance in the late prehistoric sequence, few modern archaeological excavations have been conducted at Mound Bottom, and many aspects of the site remain poorly understood. The summer of 2016 witnessed the early stages of a new research effort at Mound Bottom which culminated in the first excavations in 40 years. Herein we discuss the results of our initial field season at Mound Bottom, including the use of LiDAR data to create the first modern map of the entire site, and subsequent ground truthing of previously unmapped above ground features.

The Mound Bottom site (40CH8) is a Mississippian mound center situated above the left descending bank of an east-west oriented meander bend in the Harpeth River in Cheatham County, Tennessee. Accounts since the nineteenth century have variously described the main site area as consisting of between 11 and 14 earthen mounds arranged around a roughly rectangular plaza encompassing nearly seven acres (Cox 1926; Haywood 1823; Moore and Smith 2009; Moore et al. 2016; Myer 1924; O'Brien and Kuttruff 2012). The plaza is anchored to the west by the largest mound at the site, Mound A, which measures approximately 75 m along each side and today stands approximately 11 m high (O'Brien and Kuttruff 2012).¹ Remnants of a central staircase are still visible along the eastern face of this mound.

Most of the meander bend, including the site area, was used for both agriculture and animal pasture for at least a century prior to its purchase by the State of Tennessee in 1973 (Figure 1). During that period an access ramp was cut into the north face of Mound A.

Plowing also obscured profiles of the smaller mounds around the main plaza, which today measure between approximately 0.5 and 4 m in height (O'Brien and Kuttruff 2012). Nevertheless, excavation data from the 1970s (O'Brien and Kuttruff 2012) and a recent magnetometer survey (Lawrence et al. 2016) suggest many of the smaller mounds were flat-topped and supported structures on their summits.

The Mississippian landscape in this portion of the Nashville Basin is not restricted to the Mound Bottom meander bend, but instead extends across ridge crests and river terraces both up- and downstream. Thirty-seven additional Mississippian sites have been recorded within a 5-km radius of Mound A. These sites are generally oriented along the Harpeth River, Turnbull Creek, or South Harpeth River, and include family farms and hamlets, small mounds (often located along bluff tops and ridge crests), stone box cemeteries, and at least two rock art sites (Smith 2008). While the specific temporal relationships of these sites to occupations at Mound Bottom remain generally unknown, one major adjacent



FIGURE 1. View of Mound A under cultivation in April 1926, facing north (State Librarian and Archivist Papers from 1919-1933, Record Group 122, P.E. Cox Papers, Series 1 Box 38, photo 19/38, Tennessee State Library and Archives, Nashville).

site is believed to be contemporaneous: the Pack site (40CH1), located approximately 1.6 km upstream also along the left descending bank of the Harpeth River.

Mound Bottom and the Pack site were together identified by William Edward Myer (1924:109) as the “Great Mound Group.” Historic accounts describe both sites protected by palisades with projecting bastions, and being connected to one another by a road or trail (e.g., Haywood 1823; Jones 1869). Together these two sites comprise the largest Mississippian mound grouping in Tennessee, and one of the largest in the American Southeast. Today Mound Bottom is managed by Harpeth River State Park as the Mound Bottom State Archaeological Area, while the Pack site is divided among multiple private

landowners.

According to current understandings of regional Mississippian chronology, Mound Bottom and Pack were both founded during the early 11th century AD at the onset of Moore and Smith’s Regional Period I, likely by outsiders arriving in the region from the American Bottom (Moore and Smith 2009). Radiocarbon dates from Mound Bottom show early mound and house construction beginning around AD 1000 (O’Brien and Kuttruff 2012), while ceramic chronologies suggest occupations spanning the period of approximately A.D. 1050-1200 at Pack, and AD 1100-1300 at Mound Bottom (Moore and Smith 2009; Smith and Moore 2010). Major occupations at both sites ended by around AD 1350 at the beginning of Regional Period IV, after which point neither was intensively

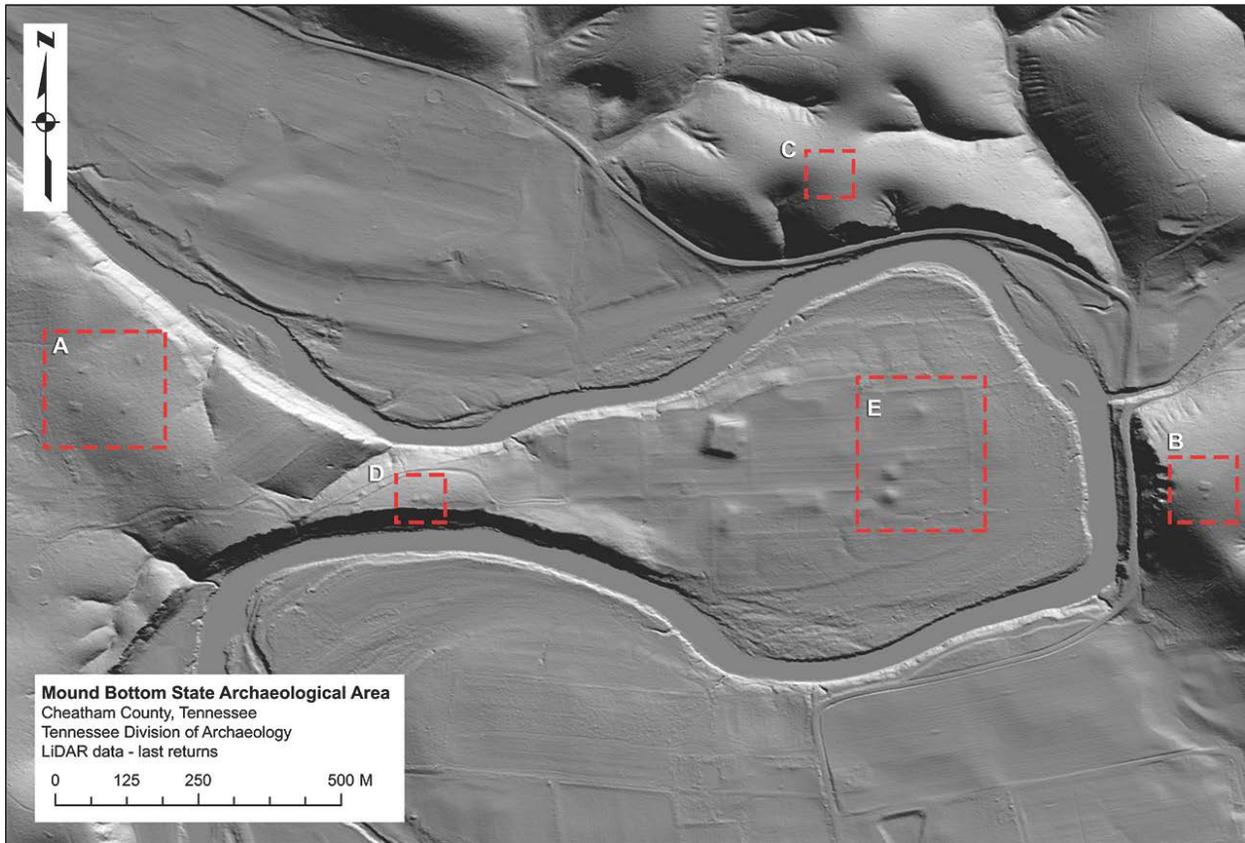


FIGURE 2. Digital Elevation Model of the Mound Bottom site area identifying specific locations noted in the text.

occupied through the end of the Mississippian era.

Despite the likely role of the Mound Bottom and Pack sites as paramount regional centers and seminal contributors to the development of the Middle Cumberland Mississippian, few modern archaeological investigations have been performed at either site.² The most recent excavations and mapping at Pack were done as part of the Works Progress Administration's Chickamauga Basin project, and concluded around 1937 (Moore et al. 2016), while the last excavations at Mound Bottom prior to the current effort took place in 1974 and 1975. That work was conducted by the Tennessee Division of Archaeology (TDOA) and a Vanderbilt University field school, and was lately summarized by

O'Brien and Kuttruff (2012) for the journal *Southeastern Archaeology*. An archaeogeophysical survey by David Dye and colleagues from 2007-2008 (e.g., Lawrence et al. 2016; Walker et al. 2008) and TDOA mapping of possible celestial alignments in 2011 both focused on the Mound Bottom site core, but did not include any subsurface investigations and have not been published to date.

New Investigations at Mound Bottom

In 2016 the authors began a series of investigations which would culminate in the first excavations at Mound Bottom in 40 years. This work was prompted by examination of 4 m/pixel LiDAR imagery for both the Mound Bottom and Pack site areas provided to the TDOA by the

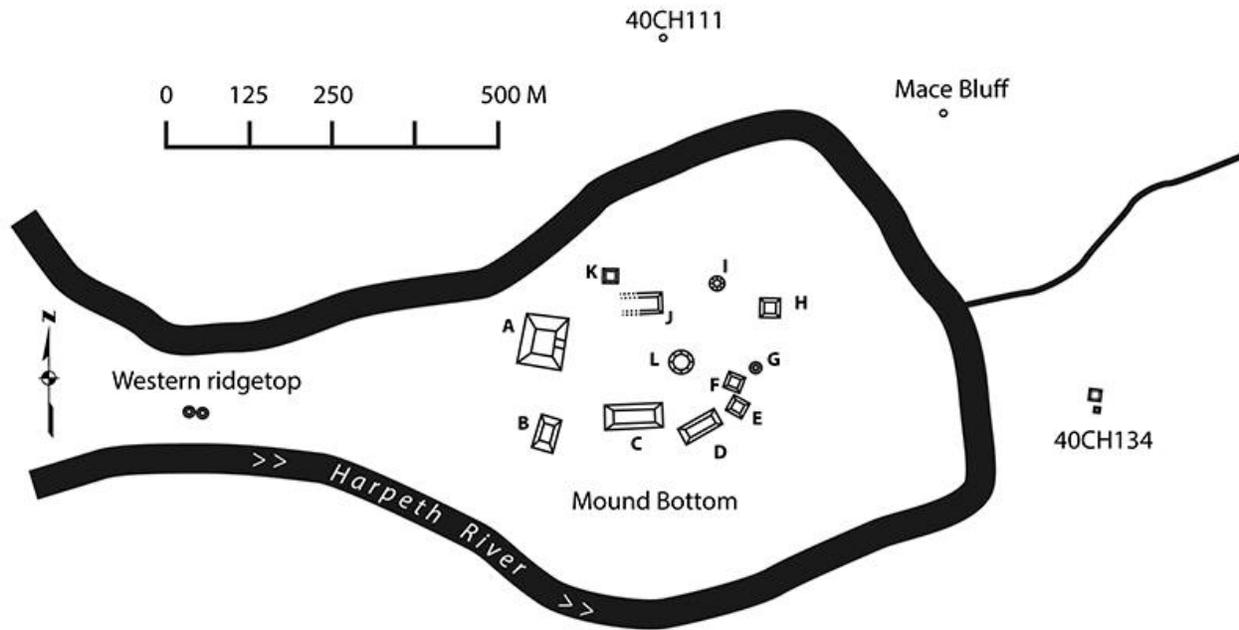


FIGURE 3. Plan view map of Mound Bottom and adjacent sites addressed in this paper. Mound identifications around the main plaza follow O’Brien and Kuttruff (2012).

Nashville District Army Corps of Engineers. That data was visualized in ArcGIS 10.3, and point data consisting of last returns were used to derive a “bare earth” hillshade of both sites. Azimuth was then manipulated to highlight the resulting dataset from multiple angles. The resulting Digital Elevation Model (DEM) presents the first modern map of the entire Mound Bottom complex to include both the main plaza and outlying mounds (Figure 2). The LiDAR DEM was subsequently overlaid with georeferenced topographic and magnetometer data from the 1970s and 1990s in order to facilitate comparisons with previously recorded surface and subsurface features. This analysis also allowed for the creation of a modern schematic map of Mound bottom and the vicinity (Figure 3).

The LiDAR returns revealed a series

of both poorly-documented and previously unrecorded above ground features throughout the Mound Bottom site area and surrounding landscape. These included a possible unrecorded mound group in the western site periphery (Figure 2A), further documentation of mounds on bluffs and ridge lines east, north, and west of the site core (Figure 2B, C, and D), and a gridwork of low raised embankments throughout the main site area. LiDAR data also revealed the absence of two previously recorded mounds on the eastern periphery of the main plaza. Ground truthing inspections and excavations were performed in the summer and fall of 2016 by the authors, with the assistance of TDOA Parks Archaeologist Bill Lawrence, Harpeth River State Park manager Gary Patterson, and a number of enthusiastic

volunteers.

A New Western Mound Group?

The LiDAR DEM appears to show a cluster of four previously unrecorded mounds arranged in a roughly rectangular fashion on a ridge crest just outside of the meander bend, approximately 800 m west-northwest of Mound A (see Figure 2A). The placement of these possible mounds relative to the main plaza and their arrangement on the landform strongly recalls small plaza groups documented at the nearby Pack site, where clusters of small mounds are arranged across level ridge crests both southwest and northwest of the main mound (Myer 1924:100).

An in-person inspection of the newly-identified features west of Mound Bottom revealed them to be historic push piles composed of scrap metal and tree stumps. Ground surface inspections of rodent burrows and tree falls in the area surrounding the push piles identified the presence of heavy carbon flecking and

wood charcoal consistent with historic burning, but did not encounter any archaeological materials. Simultaneous ground-truthing of other above ground features which appear west of the site core in the DEM, including a number of low earth embankments along the entry road to the site, revealed that those too were historic in origin.

Bluff and Ridgetop Mounds

The presence of small mounds on the ridge crest west of the main plaza at Mound Bottom, and atop bluffs to the east and north across the Harpeth River, have been known for more than a century (see Figures 2 and 3). However, it was not until creation of the 2016 DEM that all these various subsidiary mound locations have been accurately mapped relative to the main plaza.

A mound on the eastern bluff (40CH134) was first mapped in 1878 by Edwin Curtiss, who conducted excavations at Mound Bottom on behalf of the Peabody Museum at Harvard (Figure

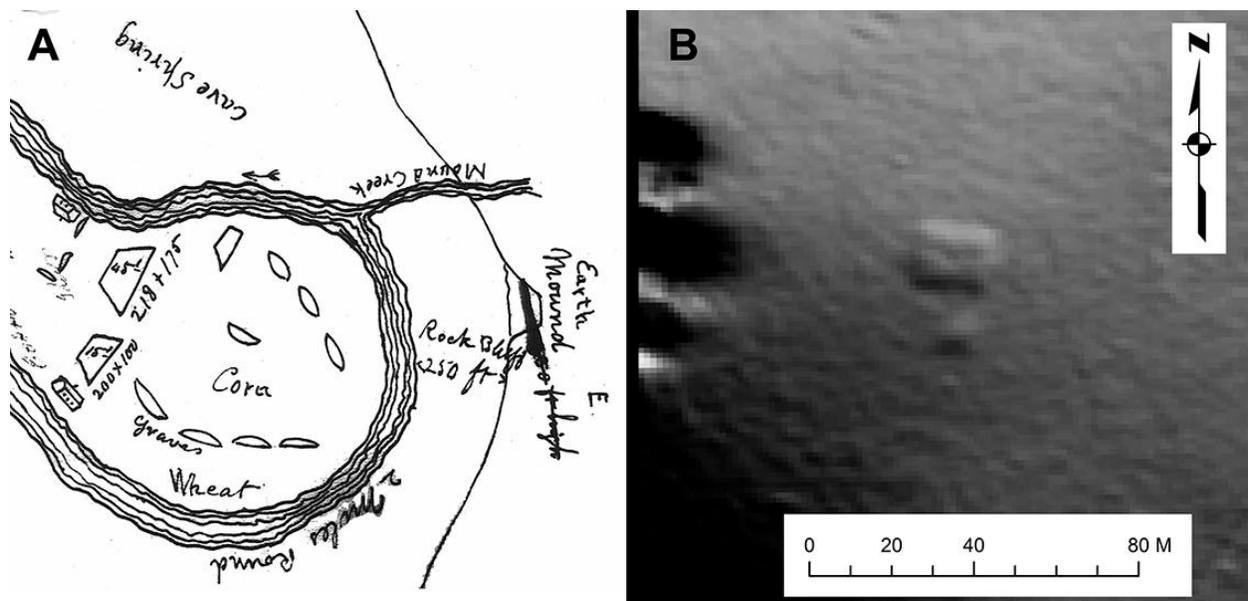


FIGURE 4. Detail of the eastern bluff comparing mounds from the Curtiss map (A) and the DEM (B).

4A; Moore and Smith 2009). Curtiss's map records only a single mound on the eastern bluff, which he excavated in search of burials. In 1926, Tennessee's first State Archaeologist Parmenio E. Cox described excavating a mound "Immediately east of the Temple Mound at a distance of 2,700 feet, and across the river from the city site [on] the largest hill in that section" (Cox 1926:26). This description would seem to place the mound on the top of the eastern bluff; however, neither Curtiss nor Cox mentions the presence of more than a single mound in that location, nor does Cox's account suggest the mound he investigated had been previously disturbed.

The 2016 DEM shows two low, flat-topped mounds arranged along a roughly north-south axis in this area (Figure 4B; see Figure 2B). Visual inspections by the authors and Bill Lawrence confirm that the two mounds on the eastern bluff remain extant. Their arrangement suggests that the group originally consisted of three platform mounds, a larger central mound flanked to the north and south by two others. It may be that Curtiss and/or Cox entirely excavated the northernmost of the three.

Figures 2 and 3 present the first time since 1878 that the main plaza of Mound Bottom and the eastern bluff mounds have appeared together on a single map, and are the most accurate plotting of their relationship to date. Mound A has been previously noted as being oriented 11 degrees east of North (O'Brien and Kuttruff 2012), apparently out of alignment with the rest of the mounds on the main plaza. Lawrence and colleagues (2016; Walker et al. 2008) have proposed that the placement of the eastern bluff top mounds relative to Mound A indicates the large mound was deliberately oriented to

face the bluff top group. Using the LiDAR DEM and ARCMAP toolkit we were able to better calculate the orientation of Mound A along all four axes at the summit and base of the skirt. Although these portions of the mound have undoubtedly been impacted by plowing and erosion, our measurements show that Mound A is oriented between approximately 13.67 and 14 degrees east of North and is indeed, albeit imperfectly, aligned to face the eastern bluff top mounds (see Figures 2 and 3).

Another small Mississippian mound was once situated across the Harpeth to the north of Mound Bottom, along the same landform that holds the Mace Bluff Petroglyph (40CH90)(see Figures 2C and 3). Cox visited a mound in this area on March 21, 1926, and describes the "Signal mound" as providing a "splendid view" of both Mound Bottom and the Pack site (P.E. Cox, Cheatham County Expedition --- Field Notes; Field notes booklet No. 1, pp. 12-14. State Librarian and Archivist Papers from 1919-1933, Record Group 122, P.E. Cox Papers, Series 1, Tennessee State Library and Archives, Nashville). The mound had been "partially explored" prior to Cox's visit.

The mound on the northern bluff was first recorded in the TDOA site file in 1985 as 40CH111, by which time only low remnants survived. A faint circular signature on the DEM reveals the possible location of the remnant bluff top mound, nearly due north from the easternmost edge of Mound J at a distance of approximately 392 m (see Figure 3). State Archaeologist Michael Moore and colleagues (2016:127, Figure 6.1) recently described 1936 WPA excavations at the site of Woodard Mound as taking place on the north bluff. However, recent reconsideration of the

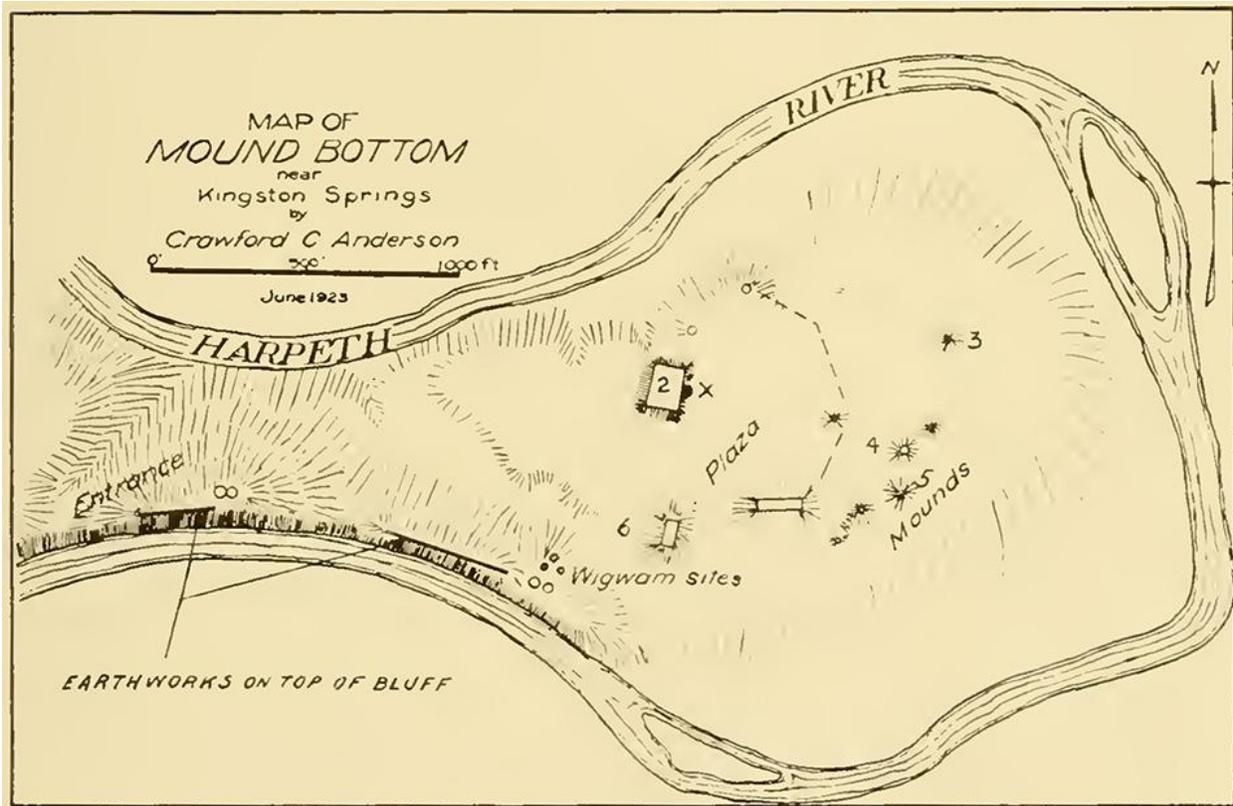


FIGURE 5. 1923 map of Mound Bottom by Crawford C. Anderson showing earthworks and mounds at the neck of the meander bend (after Myer 1924:111, Fig. 109).

data suggests that the Woodard Mound site is instead located downstream past the Narrows of the Harpeth, at the location of site 40CH4 (Michael C. Moore, personal communication, January 11, 2017).

Earthworks along the narrow ridge crest running into the Mound Bottom meander bend from the west were first mapped in 1923 (Myer 1924: Figure 109) (Figure 5). That map shows two mounds at the neck of the Harpeth meander, and two others along the toe slope to the east. In 1940 Charles H. Nash excavated at least one low burial mound on the easternmost extent of the ridge (Autry 1983; Moore et al. 2016), and uncovered evidence of previous excavation in the area, likely by Cox. The DEM shows that while the easternmost mounds are no longer extant, the two located on the

western portion of the ridge remain (see Figure 2D). A visual inspection by the authors confirmed the presence of these mounds, as well as of a low earthen embankment running along the southernmost edge of the bluff. The placement of the western ridgetop mounds orients them on a nearly straight east-west axis with the 40CH134 mound group on the eastern bluff (see Figures 2 and 3).

Mounds M and N

Prior to the 2016 DEM, the most precise map of Mound Bottom was created during the 1974-1975 TDOA excavations. That map employed 25-cm contour intervals, focused on the main plaza, and identified for the first time the presence of two mounds on the far

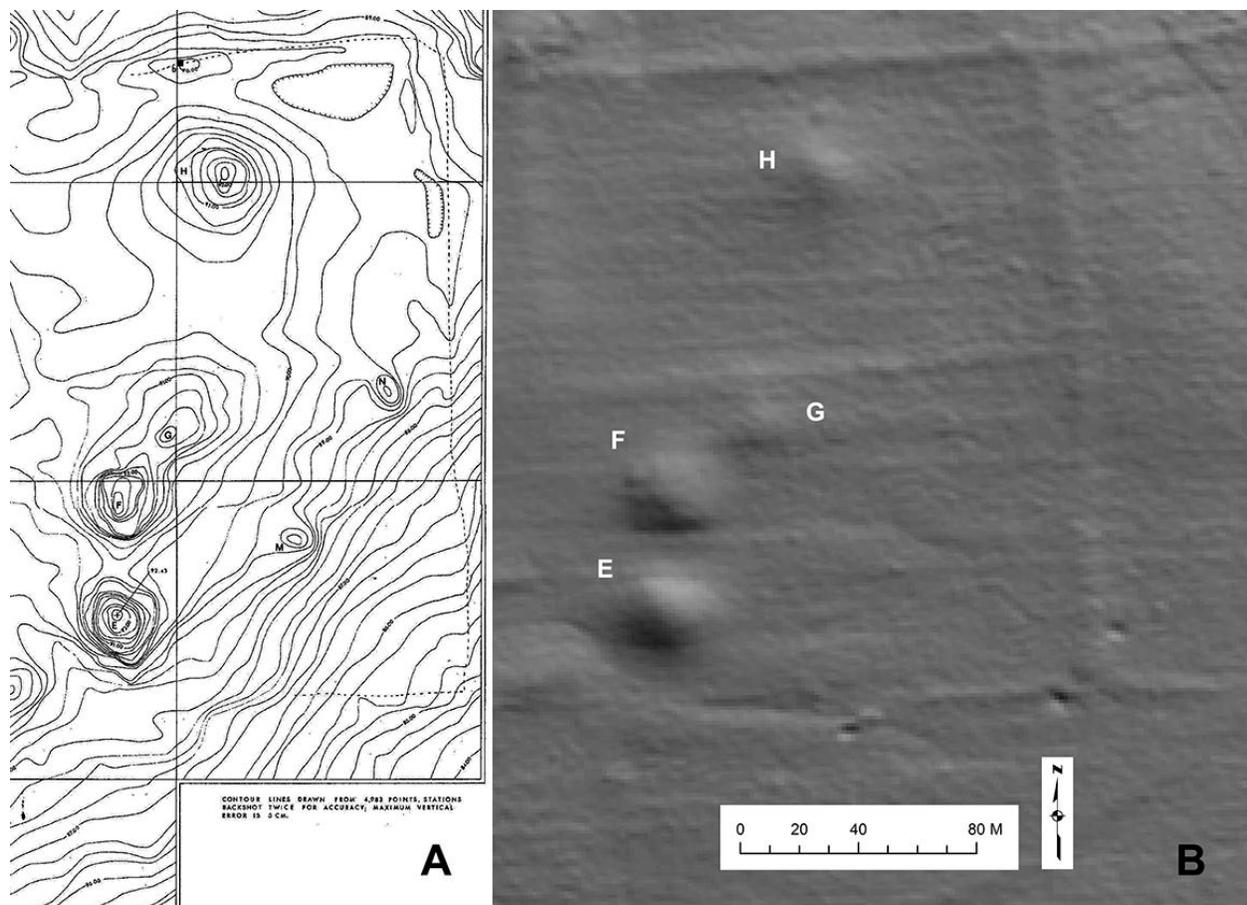


FIGURE 6. (A) Excerpt of 1970s topographic map of Mound Bottom showing the recorded locations of Mounds M and N and the dashed line indicating the “interior palisade” (Tennessee Division of Archaeology map files). (B) Excerpt of the 2016 DEM for the same area.

eastern extent of the site core, designated M and N (Figure 6A; see Figure 2E). These mounds are described as being approximately 8 m in diameter and 50 cm high (O’Brien and Kuttruff 2012), and raised the total number of mounds around the main plaza to 14.

In his dissertation on Mound Bottom, Michael O’Brien (1977:38) postulates that Mounds M and N “...are probably two of the many low residential mounds which were scattered outside the central plaza but yet inside the protective wall.” No excavations were made into mounds M or N during the 1970s work at Mound Bottom, nor was the area systematically surface collected, and it is not clear how

or if these mounds were identified beyond their topographic signatures.

Mounds M and N do not appear in the 2016 LiDAR DEM (Figure 6B). Visual inspections of this portion of the site have additionally confirmed that no above ground footprints persist for either of these features. The site has not been cultivated since the 1970s, and thus it seems improbable that these mounds would have disappeared over the past 40 years. Rather, the previous identifications of Mounds M and N based on their apparent topographic signatures may represent mapping errors instead of actual above ground features.

Possible Palisades

For nearly two centuries, conventional wisdom has held that both Mound Bottom and Pack were partially surrounded by defensive palisade walls. The earliest account of this feature at Mound Bottom appears to be from Judge Haywood (1823:129), who writes:

All around the bend except at the place of entrance, is a wall on the margin of the river. The mounds are upon the area enclosed by the wall. ... There are besides the entrance two gateways; from thence to the river is the distance of 40 yards. The wall is upon the second bank. On parts of this wall, at the distance of about 40 yards apart, are projected banks, like redoubts ... on which persons might have stood [Haywood 1823:129-130]

Several decades later, Joseph Jones (1869:57; 1876:36) states that “extensive fortifications” surround both Mound Bottom and Pack.

The accounts of both Jones and Heywood suggest these authors relied on second hand information to form their descriptions, and to date no first-hand descriptions of the palisade at Mound Bottom have been identified in antiquarian literature. A century after Haywood’s account and following a physical inspection of the site, Myer (1924:114) writes that the alleged palisade feature was absent, a fact he attributes to plowing: “The accounts of the early white visitors to the region indicate that a line of walls with towers every 40 paces at one time extended around the edge of this river bottom. If so, all trace has disappeared under long cultivation.”

During past visits to the site, the senior author had noted a slight rise and

adjacent low dip extending in a generally east-west orientation along in the river terraces south of the main plaza. On at least one occasion, an eminent scholar from the region had suggested that this feature was likely the remnants of the southern palisade line. However, the LiDAR DEM allows us to conclusively identify that feature as the left descending bank of a relic channel of the Harpeth River, which continues both north and south of the site (see Figure 2).

During the 1970s TDOA excavations, investigators noted the presence of intersecting low embankments enclosing the eastern end of the plaza. Both Kuttruff (1979) and O’Brien (1977:36) identify as the “Inner Palisade”:

Surrounding the east end of the plaza and its mounds is a 50 to 75 cm high dirt embankment. A century of plowing has resulted in the almost complete destruction of this feature. It was first noticed in Hectare 8, before the grass was cut and burned in October, 1975, but was not traceable to the south until after the grass cover was gone. The low rise at first appeared to be the result of plowing, but excavation showed this impression to be erroneous. A chance observation of a photograph taken during the 1940’s from the high cliff across the river at sunset showed the same ridge, but much less eroded. Fragments of the north and south walls were traceable for short distances but then became too eroded to follow. [Kuttruff 1979:17--18]

Although the height of this linear feature exceeds the 25-cm contour intervals of the 1970s topographic map, it does not appear on that document except as indicated by a dashed line (see Figure 6A). During the 1970s testing effort, a

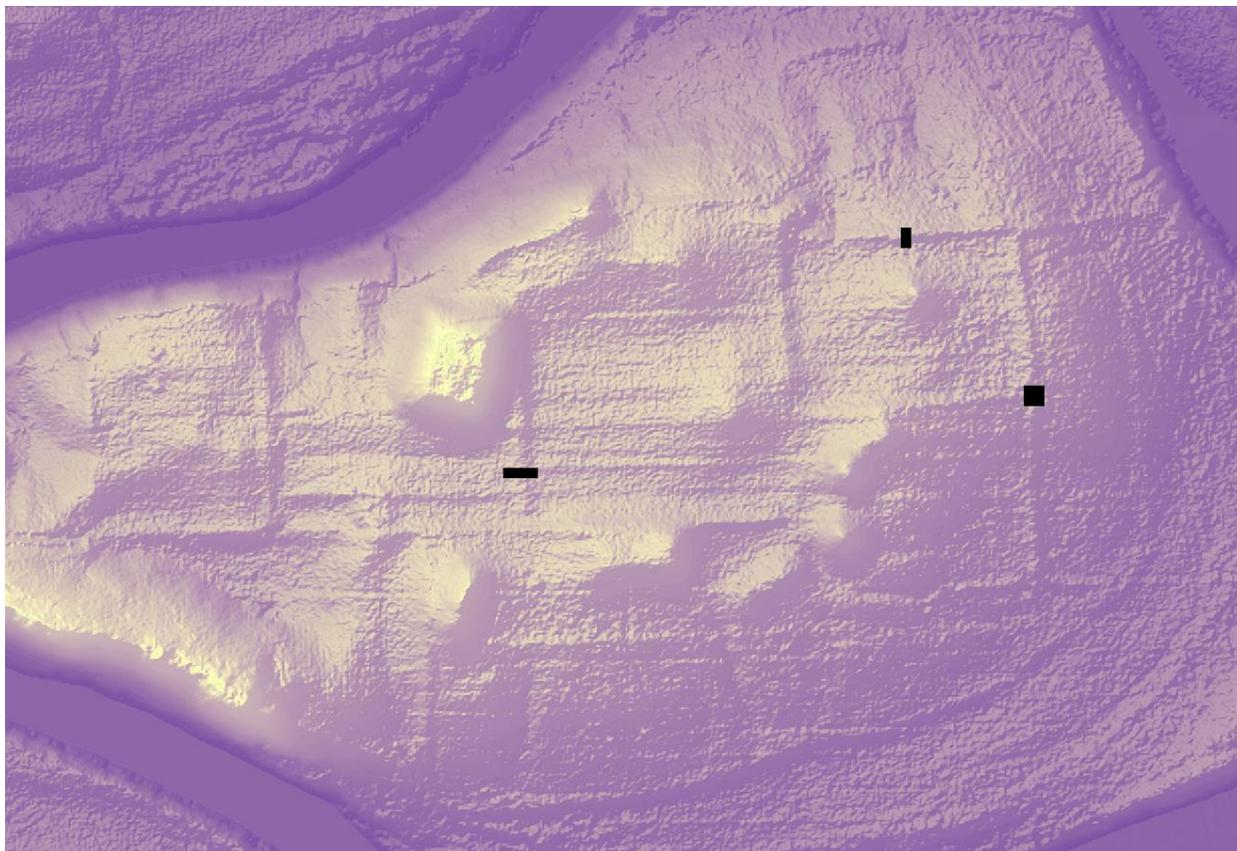


FIGURE 7. Enhanced DEM of site core, showing the grid of embankments and location of 2016 test units (shown as black squares, not to scale).

2x2-m test unit (Hectare 8, Area B) was placed on the northern of these earthen embankments, to the north of Mound H. No artifacts were recovered from within this test, which consisted of a single stratigraphic layer measuring just over one meter in depth and ending in “yellow basal clay” (O’Brien 1977:128--130). No buried A-horizon or midden deposit was present, although a wall trench and storage pit were reportedly discovered cut into the clay beneath the bank of earth. In the final interpretation, O’Brien suggested that site deposits in this area had been deliberately cleared down to contact with subsoil, after which artifact-sterile soil had been deposited in a single event as part of palisade construction. The northern embankment was also identified by Walker et al. (2008), who noted it as a

bright linear reflection in the magnetometer data.

The LiDAR data for Mound bottom revealed a grid of raised embankments spread across the site area (Figure 7). These features enclose the main plaza to the east, north, and south, and further separate that space into discrete, similarly sized units. The easternmost of these embankments, along with intersecting berms to the east, correspond to the dashed lines of the “inner palisade” (O’Brien 1977; O’Brien and Kuttruff 2012) (see Figure 6). Based on this identification, it initially appeared plausible that the raised embankments might present a network of palisades.

Ground Truthing

In June of 2016, with the assistance of Bill Lawrence and several volunteers, the authors undertook two weeks of excavations to examine the grid of raised linear features identified in the Mound Bottom DEM. With the site mowed short these features were visible to the naked eye. Excavations were placed perpendicular to embankments at the foot of Mound A and along the northeastern edge of the site core, and as well as at the intersection of embankments to the east (see Figure 7).

None of the test units encountered midden or intact deposits. Units near Mound A were essentially sterile in terms of both artifacts and features, with the exception of a north/south linear discoloration encountered at approximately 37 cm below ground surface, immediately above subsoil. That feature was less than 4 cm thick and exhibited no coherent profile. The unit placed on the eastern embankment was similarly unremarkable, yielding undifferentiated, nearly-sterile soils extending approximately 70 cm below surface before transitioning to subsoil. Both these units yielded a small collection of lithics and eroded fragments of Mississippi Plain ceramics, as well as U-shaped metal fence staples.

A final test unit was placed perpendicular to the crest of the northern embankment, approximately 7 m east of the 1970s unit. While that test is reported as being artifact-free, the nearby 2016 unit produced exponentially more lithic material than any of the other locations tested during ground-truthing. At approximately 61 cm below ground surface, excavators encountered a faint linear charcoal stain extending east/west across the unit, oriented in the same

direction as the embankment itself. This feature was immediately underlain by parallel bands of light soil approximately 32 cm apart. It was initially anticipated that this feature might represent the edges of a wall or palisade trench. However, the feature disappeared in less than 2 cm without resolving. A radiocarbon sample from the linear charcoal deposit was submitted to Beta Analytic, Inc. for dating, and returned a conventional radiocarbon age of 100 ± 30 BP (wood charcoal, $\delta^{13}C = -11.0$, Beta 442865). The northern test unit was ultimately terminated at 89 cm deep, after transitioning to yellowish brown silty clay.

Conclusions

Through a combination of remote sensing data and ground-truthing we can now take a better account of the total mounds at Mound Bottom, which have been variously reported as numbering between 11 and 14. The main plaza includes 12 definite mounds (see Figures 2 and 3), while previously recorded mounds M and N do not appear to be extant features. With the two surviving mounds identified along the western ridgetop, the total mounds within the Mound Bottom meander bend today numbers 14. Two additional mounds survive across the Harpeth River on the eastern bluff top (40CH134), and remnants of a single mound stand on the bluff to the north (40CH111).

Shortly before completion of fieldwork, investigators located an oblique aerial photo of the site taken in 1938 (Figure 8). That image shows a patchwork of fence rows which directly correspond to the gridwork of earthen berms. Based on both the radiocarbon data and historic imagery we may conclude that the grid of low embankments seen in the LiDAR data,



FIGURE 8. 1938 aerial photo of Mound Bottom showing fence rows (photographer unknown, Tennessee Division of Archaeology site information files).

including the eastern and northern features previously identified as the “inner palisade,” are not original to the site and instead are the result of historic agricultural practices. Despite assertions by historic sources that Mound Bottom is surrounded by a palisade, actual physical evidence of that feature has yet to be identified.

The vast majority of excavation data from both Mound Bottom and the Pack site exist as unpublished or archival materials, and consequently are not widely available for researchers. In addition, neither site has undergone modern evaluation at a scale that even begins to approach work done on other major regional Mississippian centers. Consequently Mound Bottom and Pack have not substantially contributed to modern research questions on the formation or trajectory of the Middle Cumberland Mississippian or the broader

Mississippianization of the interior Southeast. Hopefully the work presented here marks the initial steps in reversing that trajectory. In coming years we plan to further assess Mound Bottom with a complete suite of geophysical and remote sensing techniques, and thereby lay the groundwork for new investigations of this important Middle Cumberland Mississippian site.

Notes:

¹ This article employs mound designations established during the 1974-1975 Tennessee Division of Archaeology excavations, with Mound A being the largest platform mound at the site, and subsequent designations moving counterclockwise around the plaza.

² See both Moore and Smith (2009) and Moore et al. (2016) for thorough excavation histories of the Mound Bottom and Pack sites.

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managing and protecting Mound Bottom and facilitating our work this past summer. Ali Jordan, Joey Keasler, Mackey and David Luffman, Sarah Northcutt, Paige Silcox, and Jesse Tune all volunteered on the excavations. Valerie McCormack at the Nashville District of the US Army Corps of Engineers assisted in procurement of the LiDAR data, while Bill Lawrence, David Dye, and Chet Walker all shared information on their magnetometer survey. Finally, we thank Scott Jones for inviting us to contribute to both the 2016 Southeastern Archaeological Conference symposium and this dedicated issue.

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A PRELIMINARY ASSESSMENT OF MISSISSIPPIAN SETTLEMENT IN THE LITTLE HARPETH RIVER WATERSHED: THE INGLEHAME FARM SITE (40WM342) REVISITED

Michael C. Moore

Initial grading activity in 2003 for a proposed cul-de-sac within the Inglehame Farm subdivision in northern Williamson County uncovered several Mississippian period stone-box graves. Subsequent archaeological investigations in 2004 recorded structures, refuse-filled pits, and additional stone-box graves associated with an intact Mississippian period village. A reanalysis of the ceramic assemblage denoted two distinct Mississippian components. The first was an early occupation (estimated AD 1000-1100) defined by shell-tempered cordmarked ceramics. The vast majority of ceramics, however, supported a primary site occupation between the mid-13th and mid-15th centuries. An AMS date of 430 +/- 30 BP (AD 1440 to 1455 at one-sigma) raises the possibility that Inglehame Farm represents one of the last Mississippian sites to exist in the Harpeth River drainage, and likely the entire Middle Cumberland Region (Moore et al. 2006), prior to widespread depopulation of the study area.

Site 40WM342 was discovered in the fall of 2003 when initial grading of a proposed cul-de-sac (roughly 6.5 acre-tract) within the Inglehame Farm subdivision in Brentwood, Tennessee uncovered possible human burials (Figure 1). This discovery in the Little Harpeth River headwaters was not particularly surprising given previous sites found in the Harpeth River watershed dating back to the mid-1800s (Clark 1878; J. Jones 1876; Moore and Smith 2009/ revised 2012; Thruston 1897). Fortunately all earthmoving activity in the tract was stopped at that time. The Tennessee Division of Archaeology (TDOA) was contacted to evaluate whether human graves had been found, and confirmed that three Mississippian period stone-box graves had indeed been exposed. The TDOA recommended the developer hire an archaeological consultant to assess the extent of human graves prior to resuming construction activity.

A local consulting firm conducted the recommended assessment in September 2004 (Dicks 2004) by digging 21 backhoe

trenches (labeled A-R) outward from, and parallel to, the proposed cul-de-sac (Figure 2). Ten test units were also excavated within select trenches. This work discovered an additional 28 stone-box graves along with intact midden deposits, structures, and other features (see Deter-Wolf 2007). These test results indicated the proposed cul-de-sac and associated lots were located on top of a substantial Mississippian village. However, the occupation boundaries were not determined as the 2004 investigation was confined to the proposed construction tract. The consultant noted most of the defined stone-boxes were small and likely contained infants and small children. This observation supported the suspected village determination as Middle Cumberland Mississippian groups routinely buried infants and very young children inside their structures (Moore 2005).

Moderate to well-preserved non-mortuary resources were concentrated in Trenches D, E, and K; with good preservation also noted in Trenches C, L,

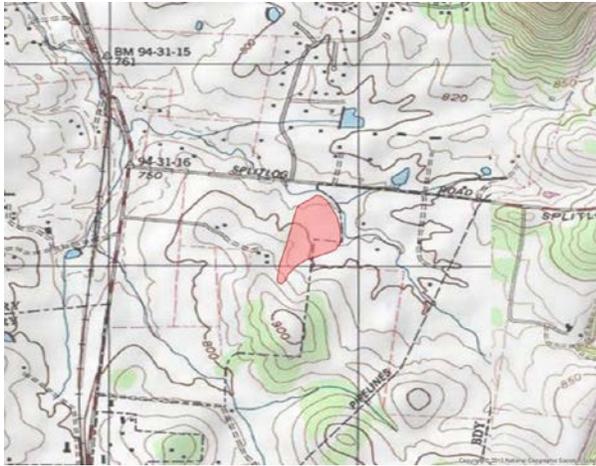


FIGURE 1. Topographic setting of Inglehame Farm site (40WM342), Williamson County.



FIGURE 2. Location of 2004 consultant backhoe trenches and test units (Dicks 2004:15).

P1, and Q (Figure 3). Several structure floors were visible in Trenches D, E, and

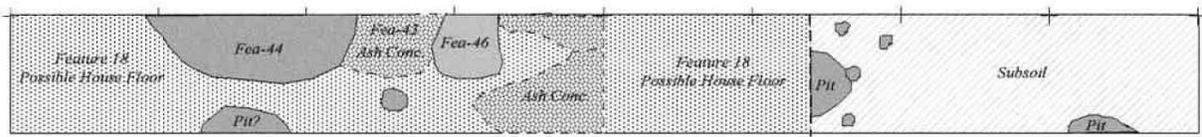
K. A small stone-box grave was present with a structure floor in Trench E (Figure 4), and a puddled-clay hearth was defined with a probable floor in Trench D (Figure 5). Linear post patterns were visible in these and other trenches, but definitive statements on structure construction style remain problematic with the available data.

No further archaeological work was performed within the proposed cul-de-sac as this subdivision addition was never built. Later investigations adjacent to the cul-de-sac area were conducted by TRC, Inc. prior to a proposed stormwater retention area and pipeline. These works revealed additional stone-box burials, non-mortuary features, and artifacts similar to those defined in 2004 (Deter-Wolf 2007; TDOA 2008). However, as with the cul-de-sac, these particular projects were never finalized or constructed, likely due to the severe economic downturn about that time.

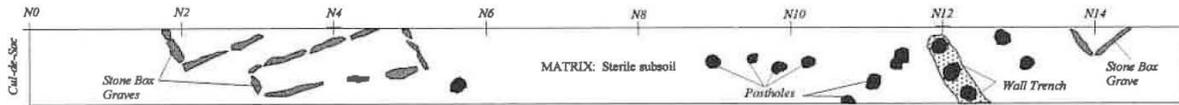
Inglehame Farm, 2004 Investigation Results

This research effort aspires to bring the 2004 test excavation results to the attention of the archaeological community. This study also takes a glimpse at how 40WM342 meshes with other Mississippian period site occupations in the Little Harpeth River drainage.

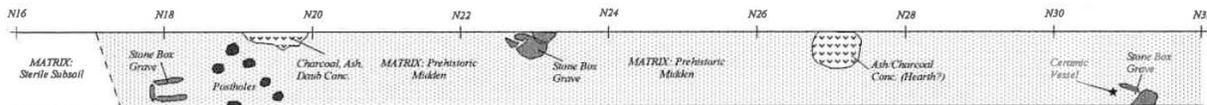
The Inglehame Farm site was established in the headwaters of the Little Harpeth River in northeast Williamson County on a low, relatively level, north-facing ridge projection at roughly 790 ft. above mean sea level (see Figure 1). This occupation overlooks an unnamed, spring-fed stream flowing in a northwest direction that joins the Little Harpeth River about one km to the northwest. The surrounding terrain comprises dissected



Trench E section plan-view



Trench P section plan-view



Trench Q section plan-view.

FIGURE 3. Trenches E, P, and Q section plan-views (revised from Dicks 2004).



FIGURE 4. Stone-box grave on structure floor in Trench E.

uplands reaching nearly 1200 ft. above mean sea level.

The 2004 exploration retrieved a variety of prehistoric ceramic, lithic, faunal, and floral artifacts from the trench and test unit excavations. A complete reanalysis of the artifact assemblage was undertaken for this research effort.

Ceramics

The nearly 2300 ceramic artifacts comprised late prehistoric vessels, vessel sections, and sherds (Table 1). A disk made from a fabric-impressed pan sherd was the only non-vessel artifact present in the sample.

As expected, the shell-tempered “supertypes” of Mississippi Plain and Bell Plain dominated with 95% of the ceramic assemblage. Admittedly not expected was the 42% of Bell Plain represented in the sample. Bell Plain percentages at other Middle Cumberland Mississippian sites range from 1% to about 19% (S. Jones 2017; Moore 2005; Moore and Smith 2001, 2009/2012; Moore et al. 2006; Smith 1993; Walling et al. 2000).

Other identified types in the assemblage were Kimmswick Plain, Kimmswick Fabric-Imprinted, Matthews Incised *var. Matthews* and *Manly*, and Beckwith Incised (Figure 6). Combined,



FIGURE 5. Puddled-clay hearth with probable structure floor in Trench D (Dicks 2004:46).



FIGURE 6. Clockwise from upper left: **Matthews Incised, variety *Matthews***; **Beckwith Incised**; **Kimmswick Fabric Impressed**; and **Matthews Incised, variety *Manly***.

these types represent about two percent of the total ceramic assemblage. Negative painted specimens were also present, including one (interior painted) plate body sherd from Trench E comparable to interior painted plate fragments found at the nearby Gordontown site, 40DV6 (Moore and Breitburg 1998; Moore et al. 2006; Myer 1928) (Figures 7 and 8).

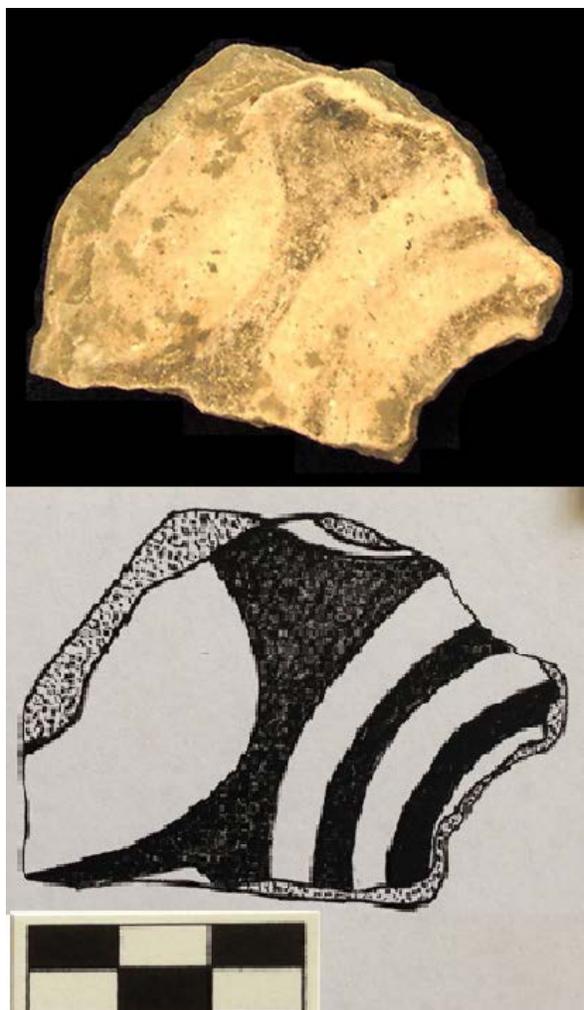


FIGURE 7. Photograph and sketch of negative painted (interior) plate body sherd from Trench E.

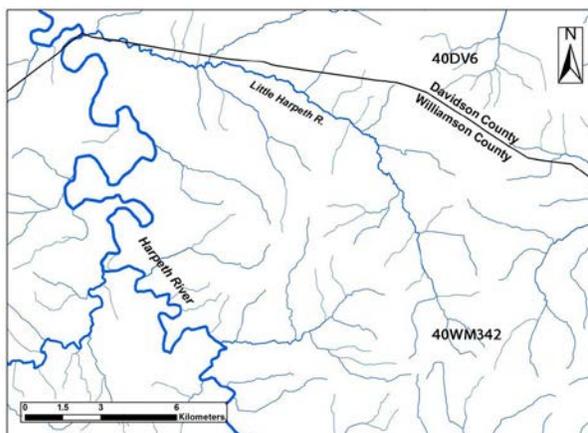


FIGURE 8. Inglehame Farm (40WM342) and Gordontown (40DV6) site locations.

TABLE 1. Ceramics from the 2004 Investigations at Inglehame Farm, 40WM342.

Provenience	Catalog No.	Miss Plain	Bell Plain	Kim Pln	Kim Fl	Kim Und	Mtlnc Matt	Mtlnc Mnly	Bkw Inc	Unid Inc	*Efgy	Unid Efgy	Neg Pnt	McSd ChSt	McSd CpSt	Shll Crd	Sd/Gr Pln	Disk	TOTAL
Gen Surf, Tr A	04-66-025	23	10		1														34
Gen Surf, Tr B	04-66-001	16	13	1															30
Gen Surf, Tr C	04-66-020	2	7																9
Gen Surf, Tr C, F14	04-66-048	1	3																4
Backdirt, Tr D	04-66-040		9		1							1							11
Gen Surf, Tr D; 0-7m S end	04-66-041												1				1		2
Gen Surf, Tr E	04-66-002	9	5																14
Gen Surf, Tr K	04-66-023	22	7																29
Gen Surf, Tr Q	04-66-004	7	1					1											9
Tr C, F13	04-66-049											1							1
Tr D, TU 1, PS 1 (60 cmbs)	04-66-051		1																1
Tr D, 64 cmbs, 10 m from S		2																	2
Tr D, 85 cmbs, 11-13 m S	04-66-045	8	16																24
Tr D, 80-85 cmbs, 13-15 m	04-66-046	1	3																4
Tr D, F17	04-66-035	3																	3
Tr D, TU 1, Lv 2	04-66-021	10	26																36
Tr D, TU 1, Lv 3	04-66-036	53	55																108
Tr D, TU 1, Lv 3 base, SW cor	04-66-044	39																	39
Tr D, TU 5, Lv 1, F16	04-66-038		2																2
Tr D, TU 5, Lv 2, F16	04-66-024, 039	81	93		1			1		1			1						178
Tr D, TU 5, Lv 3, F16	04-66-037	7	7				1												15
Tr E, TU 2, Lv 1, assoc w/ F18	04-66-027, 005	86	98	1	5		2		1	1dk, 1hm			3						198
Tr E, TU 3, Lv 1	04-66-029	124	42				1	2		3fs, 1fr, 1hm			3						177
Tr E, TU 3, Lv 1, assoc w/ F18	04-66-007	8	7				1			1			1						17
Tr E, TU 3, Lv 2, assoc w/ F18	04-66-028	25	19	1			1			1fr									47
Tr E, TU 3, Lv 3, assoc w/ F18	04-66-008	8	11				1						1						21
Tr E, TU 3/8, F44	04-66-032	48	45	1	1	1	1	1		1dk									104
Tr E, TU 8, Lv 1	04-66-031	65	54	3	1	1				1dg, 1hm					1	1			131
Tr E, TU 8, Lv 2	04-66-012	69	38		1		1	1	2	1		1	1						115
Tr E, TU 8, Lv 2 base	04-66-014	26	18										1						45
Tr E, TU 8, Lv 2, assoc w/ F18	04-66-013	16	27				1												44
Tr E, TU 9, Lv 1	04-66-026	33	32					1											66
Tr E, TU 9, Lv 1, assoc w/ F18	04-66-030	117	68			1						9				4			199
Tr E, TU 9, Lv 2, assoc w/ F18	04-66-015	57	61			1		1	1	2			3						126
Tr E, F18	04-66-019	7	10																17
Tr K, TU4, F31, PS2 (34 cmbs)	04-66-052										1fs								1
Tr K, TU 4, Lv 2, F31	04-66-022	12	11																23
Tr K, TU 10, Lv 1	04-66-016	37	30		1														68
Tr K, TU 10, Lv 2	04-66-017	54	21																75
Tr K, TU 10, Lv 2 base, F45	04-66-018	24	6		1														31
Tr Q, TU 6, Lv 1	04-66-010	3	11		3	1													18
Tr Q, TU 6, F43	04-66-011	18	21				1												40
Tr R	04-66-056	1																	1
Tr R, A	04-66-053	14	2																16
Tr R, PS 2, B	04-66-054	21	11				1	1		1									35
Tr R, PS 3, C	04-66-055	18	21																39
Tr R, TU 7, Lv 1	04-66-043	26	40															1	67
TOTAL		1201	962	7	16	5	10	8	6	6	12	1	33	1	1	5	1	1	2276
PERCENT		0.53	0.42	<.01	0.01	<.01	<.01	<.01	<.01	<.01	<.01								

* = 4 fish, 3 human, 2 duck, 2 frog, 1 dog

Miss Plain=Mississippi Plain; Kimm Pln=Kimmswick Plain; Kim Fl=Kimmswick Fabric Impressed; Kim Und=Kimmswick Unidentified; Mtlnc Matt=Matthews Incised, variety Matthews; Mtlnc Mnly=Matthews Incised, variety Manly; Bkw Inc=Beckwith Incised; Unid Inc=Unidentified Incised; Efgy=Effigy; dk=duck; hm=human; fs=fish; fr=frog; dg=dog; Unid Efgy=Unidentified Effigy; Neg Pnt=Negative Painted; McSd ChSt=micaceous sand temper check stamped; McSd CpSt=micaceous sand temper complicated stamped; Shll Crd=shell temper cordmarked; Sd/Gr Pln=sand/grit temper plain.

Effigy vessels in the assemblage (see Table 1) comprised fish, human, duck, frog, and dog (Paisa, Underwater Panther, e.g. Reilly 2011; Walker 2004). Several Inglehame Farm specimens recovered from Trench E are somewhat rare or unique for the study area. An example is the tail fragment from a negative painted dog bottle with a cylindrical neck shown in Figure 9. Only a few vessels are known for the study area, including a specimen from the Bowling Farm site presented (see Figure 9).

Also, an unusual top-knot/hair

fragment from Trench E derives from a distinct style recently defined as the “bloody mouth” human effigy hooded bottle (Figure 10). This particular bottle style only occurs in the Middle Cumberland Region (see Figure 10), with just six or seven examples recorded to date including one from the adjacent Brentwood Library site (Kevin Smith, personal communication, 2016).¹

Trench E also yielded a duck effigy bowl rim-rider with unusually large eyes and a flattened beak (Figure 11). No similar specimens have been recovered



FIGURE 9. Tail fragment from negative painted dog effigy bottle that was recovered in Trench E; and negative painted dog effigy bottle from the Bowling Farm site, Davidson County, Tennessee (*image courtesy of Kevin Smith*).



FIGURE 10. Top fragment of “Bloody Mouth” human effigy hooded bottle from Trench E; example of “bloody mouth” human effigy hooded bottle (*image courtesy of Kevin Smith*).

from the Middle Cumberland Region to date.

Additional specimens in the Inglehame Farm assemblage include five shell-tempered cordmarked sherds. This particular ware has been recovered from

other study area Mississippian sites that date prior to AD 1200 (Norton and Broster 2004; Spears et al. 2008).

Also found was one micaceous sand temper (possibly complicated) stamp sherd, and one micaceous sand temper



FIGURE 11. Duck effigy rim-rider recovered from Trench E.



FIGURE 12. Check-stamped body sherd with micaceous sand temper recovered from general surface in Trench D vicinity.

check-stamp sherd (Figure 12). Micaceous sand temper sherds represent non-local wares for the Middle Cumberland Region. Similar complicated stamp sherds recovered from the Rutherford-Kizer site in Sumner County

were suggested to originate from north Georgia (Moore and Smith 2001:160-161). However, the check-stamped specimen represents a truly unique artifact yet to be found at other study area Mississippian sites. Consultations with colleagues to date have yet to be fruitful regarding a possible type or place of origin.

Ceramic Vessel Forms

Vessel forms represented in the ceramic assemblage included jars, bowls, bottles, plates, and pans (Table 2). By far the most common vessel forms, as defined by rim sherd frequencies, were: (1) jars with direct rims and flattened lips, along with strap and bifurcate lug handles; and (2) standard bowls with notched rim-appliques. Handles observed in the assemblage were limited to straps and bifurcate lugs. No loop or flattened loop specimens were present.

Other Artifacts

Reanalysis of the lithic assemblage defined a revised total of just over 700 cultural items, all derived from local sources (Table 3). Over 90% of the assemblage comprised flakes and blocky debris representative of tool manufacture and/or maintenance activities. The small number and range of formal tools was a bit surprising with a few Madison projectile points, abrasive siltstone disks, and a limestone metate. Of interest was the complete absence of such formal tools as celts and chisels.

Reanalysis of the nearly 5000 faunal specimens recovered in 2004 is still underway. To date this work has documented vertebrates and invertebrates that include white-tailed deer, black bear, raccoon, rabbit, squirrel,

TABLE 2. 40WM342 Mississippian Vessel Forms and Attributes Represented by Rim Sherds.

Vessel Form	Vessel Attribute	Coarse Shell Temper	Fine Shell Temper	Total
Plain Jar		15	3	18
	Direct rim, flattened lip	51	2	53
	Direct rim, rolled/folded lip	1	-	1
	Everted rim	1	-	1
Incised Jar		-	4	4
Bowl	Standard	-	13	13
	Outslanting wall	4	5	9
	Notched rim	5	43	48
Bottle		-	2	2
	Cylindrical neck	-	1	1
	Hooded	-	1	1
	Negative painted	-	1	1
Plate		-	2	2
Pan	Plain	4	-	4
	Fabric impressed	4	-	4
	Unidentified	6	-	6
Effigy		-	10	10
Unknown		33	35	68
Totals		124	122	246

TABLE 3. Lithics from the 2004 Investigations at Inglehame Farm, 40WM342.

Provenience	Catalog No.	Tested Cobble	Thick Core	Thin Biface	Prim Biface	Sec Flake	Blank Flake	Block Debris	Rejuv Flake	Utiliz Flake	Crude Tool	Proj Point	Disk	Metate	TOTAL	
Gen Surf, Tr A	04-66-025					3	7					1			11	
Gen Surf, Tr B	04-66-001		1			1	4								6	
Gen Surf, Tr C	04-66-020					1	1						1		3	
Backdirt, Tr D	04-66-040					1				1sp			1		3	
Gen Surf, Tr D; 0-7m S end	04-66-041			1				1							2	
Gen Surf, Tr K	04-66-023						1								1	
Gen Surf, Tr N	04-66-003													1	1	
Gen Surf, Tr Q	04-66-004						1								1	
Tr D, TU 1, Lv 1	04-66-034						5	3							8	
Tr D, TU 1, Lv 2	04-66-021					1	14	4				1			20	
Tr D, TU 1, Lv 3	04-66-036					8	16	12		1sc					37	
Tr D, TU 5, Lv 1, F16	04-66-038				1	1	3	2							7	
Tr D, TU 5, Lv 2, F16	04-66-039		1	1	1	6	23	10		1sc		3			46	
Tr D, TU 5, Lv 3, F16	04-66-037					1	3		1						5	
Tr E, TU 2, Lv 1, assc w/ F18	04-66-027	3			4	12	26	23							68	
Tr E, TU 3, Lv 1	04-66-029	1	2		2	6	20	13		1ss; 1dr			3		49	
Tr E, TU 3, Lv 1, assc w/ F18	04-66-007				2	2	2	2				1			7	
Tr E, TU 3, Lv 2, assc w/ F18	04-66-028				3	6	2								11	
Tr E, TU 3, Lv 3, assc w/ F18	04-66-008				3	2									5	
Tr E, TU 3/8, F44	04-66-032	5			1	6	14	3	1cu			1			31	
Tr E, TU 8, Lv 1	04-66-031				2	7	5								14	
Tr E, TU 8, Lv 2	04-66-012				2	7	20	6							35	
Tr E, TU 8, Lv 2 base	04-66-014				10	25	11		1cu			2			49	
Tr E, TU 8, Lv 2, assc w/ F18	04-66-013		1	1	1	4	2								10	
Tr E, TU 9, Lv 1	04-66-026				8	4	2		1sc						15	
Tr E, TU 9, Lv 1, assc w/ F18	04-66-030				3	13	79	35				1			131	
Tr E, TU 9, Lv 2, assc w/ F18	04-66-015	1			4	4	7	2				1			19	
Tr E, F18	04-66-019					1				1sp					2	
Tr K, TU 4, F31	04-66-033		1		2	2	5			1sc; 1gr					12	
Tr K, TU 10, Lv 1	04-66-016				3	5	13	8							29	
Tr K, TU 10, Lv 2	04-66-017				8	6	5		1sc				1		21	
Tr K, TU 10, Lv 2 base, F45	04-66-018					1									1	
Tr Q, TU 6, Plowzone	04-66-009	1													1	
Tr Q, TU 6, Lv 1	04-66-010				1	2	1								4	
Tr Q, TU 6, F43	04-66-011	1			2	7		1							11	
Tr R, TU 7, Lv 1	04-66-043				1	13	21	3	4sc	2sc		1	1		46	
TOTAL		12	6	3	1	25	137	344	155	1	9	9	12	7	1	722
PERCENT		0.01	<0.01	<0.01	<0.01	3.4	18.6	47.7	21.5	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	

domesticated dog, turkey, eastern box turtle, soft-shelled turtle, snake, gar, freshwater river mussel, and marine lightning whelk (Tanya Peres, personal communication, 2016).

The floral assemblage has yet to be formally analyzed. However, 12-row maize cob fragments were identified from fill inside a fish effigy bowl (Andrea Bishop, personal communication, 2016).



FIGURE 13. Fish effigy bowl containing 12-row maize cob fragments recovered from Trench K.

These specimens are believed to derive from the same cob.

Radiocarbon Date

One maize cob fragment from the fish effigy bowl (Figure 13) found in Trench K was submitted to Beta Analytic for AMS assay. This vessel was likely resting on a structure floor. Test results from the sample (Beta-444641) yielded a conventional radiocarbon age of 430 ± 30 BP with a calibrated result of AD 1440 to 1455 at one-sigma and AD 1430-1485 at two-sigma (INTCAL 13).

This mid-15th century date meshed fairly well with the anticipated result based upon the abundance of notched-rim bowl sherds (see Table 2) that represent a post-AD 1300 time marker (Moore and Smith 2009/2012:211-213). Also, the Matthews and Beckwith Incised specimens are suggested to date from their emergence in the mid-13th century

through a more widespread presence during the 14th to mid-15th centuries (Moore and Smith 2009/2012:213-215). The complete absence of loop and flattened loop handles also supported a later date.

Mississippian Settlement in the Little Harpeth River Drainage

The discovery and exploration of Mississippian archaeological sites within the Middle Cumberland Region (Moore et al. 2006) are documented through the mid to late 19th century works of Clark (1878), J. Jones (1876), Putnam (1878), and Thruston (1897). Continuing works from the mid-20th through early 21st centuries have augmented these early explorations with data to explore research topics deeper than ever before, whether oriented toward late prehistoric settlement and subsistence patterns or more esoteric subjects including iconography,

cosmology, and warfare (e.g. Clinton and Peres 2011; Dacus et al. 2010; Hodge et al. 2010; Klippel and Bass 1984; Moore et al. 2014; Sharp et al. 2010, 2011; Smith and Miller 2009; Steponaitis et al. 2011; Vidoli 2012; Worne 2011).

The Middle Cumberland Mississippian Survey Project (MCMSP), initiated by Kevin Smith in the early 1990s, has generated a wealth of information to provide a clearer vision of Mississippian occupation and use of the Middle Cumberland Region (e.g. Moore 2005; Moore and Smith 2001, 2009/2012; Moore et al. 2006, 2016; Smith 1992, 1993; Smith and Moore 1994; Smith et al. 2009; Spears et al. 2008). Works by other researchers have added important data to assist in the overall interpretation (Barker and Kline 2013; S. Jones 2017; Norton and Broster 2004; Myer 1928; O'Brien 1977; O'Brien and Kuttruff 2012; Walling et al. 2000).

Given the plethora of available information and interpretation, along with our better understanding of the general Middle Cumberland Mississippian trends, we can indulge ourselves to drill down and look at what's happening within more

specific drainage areas. Are there trends to be observed in these more limited areas, and if so, do they mirror the overall regional developments? There were no expectations about what may or may not be discerned through such investigations, but the Inglehame Farm site offered an ideal opportunity to begin an assessment of the Little Harpeth River drainage.

The Middle Cumberland Region has been defined as those drainages between the Cumberland and Red River confluence to the west, and the Cumberland and Caney Fork River confluence to the east (Moore et al. 2006). The Harpeth River comprises an extensive primary tributary that meanders in a generally northwest to north direction through Rutherford, Williamson, Davidson, Cheatham, and Dickson counties along the south side of the Cumberland River. The Little Harpeth River is just one of several secondary tributaries that empty into the Harpeth River, and drains the eastern edge of the watershed by flowing in a somewhat northwest direction through northeast Williamson and southwest Davidson counties (Figure 14).

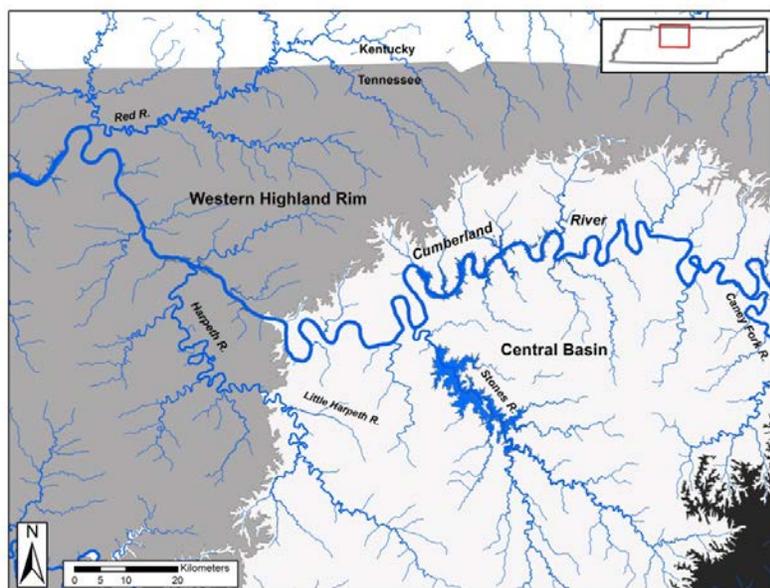


FIGURE 14. Little Harpeth River watershed within the Middle Cumberland Region.

The previously mentioned works of Clark (1878), J. Jones (1876), Thruston (1897) and others reported large Mississippian sites along the Harpeth River, but made no mention of sites on the Little Harpeth River. This absence is interesting against the backdrop of Mississippian occupations known today that include the Fewkes mound center (40WM1), Brentwood Library (40WM210), Arnold (40WM5), and Kellytown (40WM10) sites. To be fair, the Arnold and Brentwood Library sites were examined during Harvard's Peabody Museum-sponsored explorations in Middle Tennessee (Moore and Smith 2009/2012). The Fewkes Mounds were also briefly mentioned in the 19th century Peabody Museum notes, stating the landowner would not allow digging on her property (Moore and Smith 2009/2012:149).

A review of the TDOA site files has nine recorded Mississippian sites along the Little Harpeth River (Figure 15). Four small stone-box cemeteries exist in addition to Inglehame Farm and the four previously mentioned sites. Even the most cursory glance at the site distribution reveals the five substantial occupations are somewhat evenly distributed along the Little Harpeth River.

As previously noted, the Fewkes Mound center (40WM1) was known to 19th century explorers. Our evidence comes through an 1879 notation by Edwin Curtiss:

Three miles above this Mrs. Hayes...is a vary large sacrificial mound and a large area covered with graves...the owner is a widow lady and will not grant any one permission to explore on her farm says it is wrong to molest the dead and says she don't want her bones disturbed after she is

ded ...I think it must be a depraved person who would want to disturb her while living (Notes by Edwin Curtiss from Mrs. Hayes Farm, Peabody Museum of Archaeology and Ethnology Accession Number 79-4).

However, Fewkes wasn't brought to the attention of the archaeological community until William Myer conducted his now well-known excavation in 1920 on behalf of the Smithsonian Institution (Myer 1928).

The site received modern attention in 1998 when the western edge was excavated by a private consultant prior to TDOT road construction (Dicks 1997). This investigation uncovered a palisade line as well as structures and pit features, but unfortunately the excavation report has never been completed. The available data tentatively supports the Fewkes site having been used/occupied over multiple centuries during the Mississippian period.

The Brentwood Library, or Jarman Farm, site (40WM210) was excavated by Frederic Ward Putnam in 1882 on behalf of the Peabody Museum at Harvard, but that work was not formally published (Moore and Smith 2009/2012:177-189). Putnam's information, combined with the 1997 TDOA excavations prior to construction of a new public library (Moore 2005), defined the presence of a substantial palisaded settlement and cemetery dating from the 14th to early 15th centuries.

The Arnold site (40WM5, also known as the Emily Hayes Farm site) was excavated on behalf of the Peabody Museum-sponsored effort by Edwin Curtiss in 1879 (Moore and Smith 2009/2012:149-155). Curtiss focused on a burial mound as well as select areas within the palisade. Later salvage work in the mid-1960s prior to subdivision

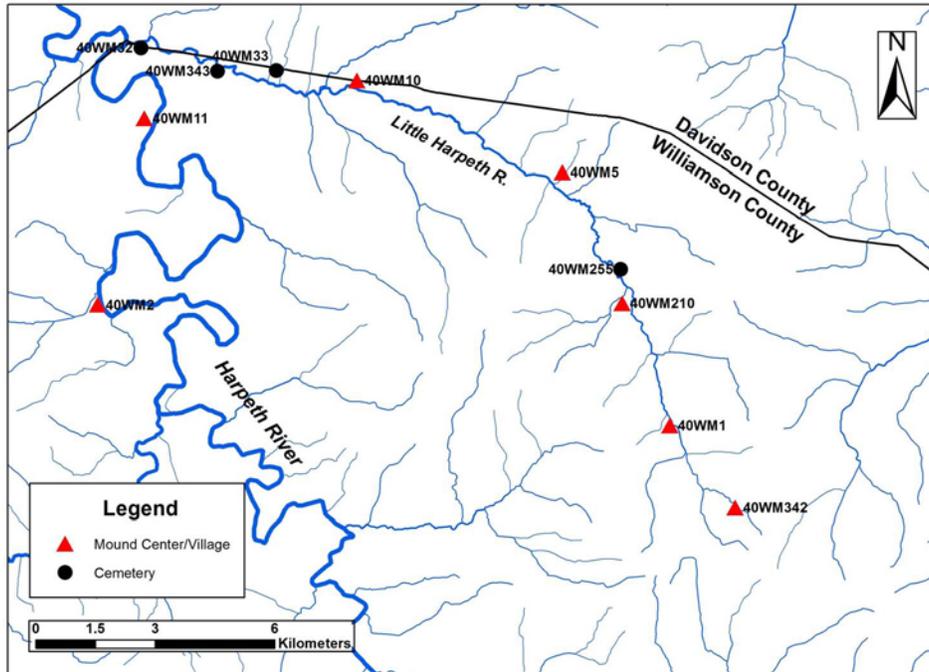


FIGURE 15. Recorded Mississippian period archaeological sites within the Little Harpeth River watershed.

construction exposed numerous structures and stone-box graves (Ferguson 1972). The 1870s and 1960s work defined a substantial palisaded settlement and cemetery somewhat similar to the previously mentioned Brentwood Library site. The burial mound suggests an initial settlement prior to AD 1300, whereas recovered artifacts including notched-rim bowls and incised wares support a post-AD 1300 occupation.

Kellytown (40WM10), initially recorded as a stone-box cemetery in the 1970s, was later determined by TDOT investigations to be a late prehistoric settlement with several palisade lines, numerous structures and pit features, and stone-box graves (Barker and Kline 2013). Radiocarbon dates, supported by the presence of palisade lines along with notched-rim and incised wares, denote a late occupation between the early 14th and early 15th centuries.

So what, if anything, can be said about the observed distribution of substantial sites? An initial cultural chronology introduced the Dowd and Thruston phases to characterize the progression and pinnacle of Middle Cumberland Mississippian occupations within the study area (Smith 1992; Smith and Moore 1994). The Dowd and Thruston phases were later redefined as the Dowd and Thruston regional periods (Moore et al. 2006) following discussions at that time about the framework of chronological sequences (e.g. King 2003).

A more recent update further separated the Dowd and Thruston regional periods into five (as yet unnamed) regional periods (Moore and Smith 2009/2012:209). Figure 16 presents a comparison of the original and most current chronologies. Regional Period I signals the initial founding of several Mississippian mound centers along the western periphery of the region

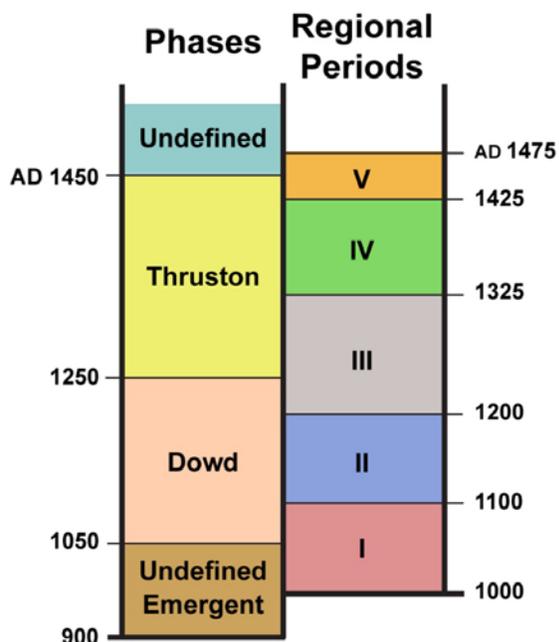


FIGURE 16. Revised Middle Cumberland Mississippian regional chronology (adapted from Smith and Moore 1994; Moore and Smith 2009).

along with several smaller sites in other areas. This includes the Mound Bottom site located in the northern portion of the Harpeth River watershed. However, it's possible the initial founding of Mound Bottom may not be the only emergent occupation in the Harpeth River watershed. The shell-tempered cordmarked sherds recovered from Inglehame Farm are linked to other early sites in the Middle Cumberland Region that include Sogom and Spencer (Norton and Broster 2004; Spears et al. 2008).

Regional Period II sees a west to east expansion of chiefdoms within the region, including the probable establishment of the Old Town (40WM2) and Gray Farm (40WM11) mound centers in the more southern portion of the Harpeth River watershed. In addition, Fewkes appears to have been established by AD 1200 (perhaps a bit earlier), and likely exerted

influence over the entire drainage for the next century.

Regional Period III reflects a time of substantial population growth across the entire Middle Cumberland Region. The initial settlement at Arnold (Emily Hayes Farm) likely took place during the latter half of Regional Period III.

The growth noted in Regional Period III ends around AD 1325 as a broad regional pattern of political destabilization takes place. The following century (Regional Period IV) witnesses the decline of centralized authority as reflected by numerous fortified villages. While mound construction has ceased at this time, some previously established mound centers across the Middle Cumberland Region continue to operate as fortified villages. Fewkes appears to be an excellent example of this change. The available evidence does tell us that all major sites in the Little Harpeth River drainage (i.e. Kellytown, Arnold, Brentwood Library, Fewkes and Inglehame Farm) were occupied during the mid-14th to mid-15th centuries (see Figure 15).

By the end of Regional Period V, Mississippian populations have dropped below the level of archaeological visibility. This gradual abandonment is suggested to be part of a broader dispersal pattern seen in parts of the Ohio, Tennessee, and Mississippi River drainages previously defined as the Vacant Quarter (Cobb and Butler 2003; Williams 1990). The relatively late date for Inglehame Farm (AD 1440-1455) presents the intriguing possibility this population was one of the last to inhabit the Middle Cumberland Region.

One question to ask is do these evenly distributed sites represent autonomous settlements, or rather reflect the same group moving locations throughout the

regional period, or perhaps a combination of both? While the question may be obvious, getting to the answer is not so easy, as intrasite settlement patterns and material culture are very similar between these sites. Giovanna Vidoli's recent research partially addresses this question as she examined several Little Harpeth River site populations (Brentwood Library and Arnold) along with other Middle Cumberland Region sites while looking at the broader picture of population movements and gene flow (Vidoli 2012). She determined "the biological and geographic proximity between Brentwood Library and Arnold suggest they were one socially and politically coeval population that lived on different parts of the river".

A significant complicating factor for further research into this question (and other relationship queries) has been the relatively recent changes to Tennessee state burial statutes (Moore 1989, 1998). These changes, initiated in the mid to late 1980s, require reburial of removed Native American skeletal remains and associated burial objects within one year of removal. State law does allow analysis during this one-year period, but such analysis is not required. Reburied remains and objects from Little Harpeth River sites include Brentwood Library and Fewkes Mounds. In addition, a federally-recognized tribe has expressed interest in repatriating the Arnold (Emily Hayes Farm) site remains and objects under NAGPRA.

Concluding Remark

This preliminary assessment of Mississippian sites in the Little Harpeth River drainage suggests an initial (and likely ephemeral) occupation at 40WM342 early in the Middle Cumberland chronological sequence between AD 1000-1100. This is important new

information to add to our understanding of this emergent Mississippian period. Mound construction at 40WM1 represents definitive evidence for settlement in the drainage by at least AD 1200, although perhaps not at the level seen along the primary Harpeth River watershed or the broader Middle Cumberland Region. However, the Little Harpeth River experienced a significant expansion of post-AD 1300 settlements throughout the entire drainage as a significant region-wide shift took place. Several of these sites appear to reflect autonomous populations interacting with each other, but the broader intersite relationships remain to be answered. And finally, the 40WM342 date of AD 1440-1455 may indicate Inglehame Farm represents one of the last settlements in the Middle Cumberland Region to exist prior to abandonment.

Note:

¹ Kevin Smith and Robert Sharp are currently working on a project that will enlighten researchers about this particular form.

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THE COPPER CREEK SITE (40SU317): A MULTICOMPONENT MORTUARY SITE IN GOODLETTSVILLE, SUMNER COUNTY, TENNESSEE

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In the summer of 2015, three Mississippian stone-box burials were found during grading of a Sumner County ridgetop in preparation for the Copper Creek subdivision. Subsequent investigations also discovered two Archaic period burials, making the Copper Creek site (40SU317) one of the few Archaic and Mississippian mortuary sites in the state. While the site lacked evidence of a permanent prehistoric occupation, Copper Creek does offer the opportunity to study a site used intermittently from the Archaic through Mississippian periods.

The Copper Creek site (40SU317) was discovered during the summer of 2015 when heavy equipment operators encountered three stone-box burials while grading a ridgetop in preparation for a subdivision near Goodlettsville in southwest Sumner County. While the discovery was a surprise to the developer, it was not completely unprecedented due to the existence of other sites with stone-box graves located within a few miles. Following legal protocol in the discovery of human remains, the developer halted work in the area and contacted the Sumner County Sheriff, Medical Examiner, and Tennessee Division of Archaeology (TDOA). These officials confirmed the graves were prehistoric and did not represent a forensic case. Since the graves were situated in the middle of a planned road, and the landform was too narrow to reroute the road around the graves, the developers made the decision to have the burials legally relocated. As such, these burials fell under state cemetery law (TCA 46-4-101) requiring a court order to allow removal and relocation of the graves. The developer hired an archaeological contract firm to perform the work.

The investigation evaluated the landform within the limits of the

construction disturbance to locate any additional graves. As the hired archaeological contractor (TRC Solutions, Inc.) carried out their work in search of other graves, the developer allowed TDOA staff to excavate a sample of non-mortuary features that had been exposed during the investigation. As expected, two additional graves were discovered during the testing, but these burials were interred in pits rather than stone boxes. The different burial modes suggested mortuary use of this site at two separate periods of time separated by thousands of years. A radiocarbon date procured from fill in one of the pit burials returned a Late Archaic period date, while the stone box mode of burial was representative of the Mississippian period.

Per the court order, all burials were relocated to a predetermined spot on the subdivision property. Upon conclusion of the excavations, the developer graciously donated the Copper Creek artifact assemblage to the State (TDOA) for further study and long term curation. In addition, the TDOA floated soil samples from several non-mortuary features to gain additional insights.

While the site appears to have been used intermittently as a temporary camp throughout prehistory, it also represents

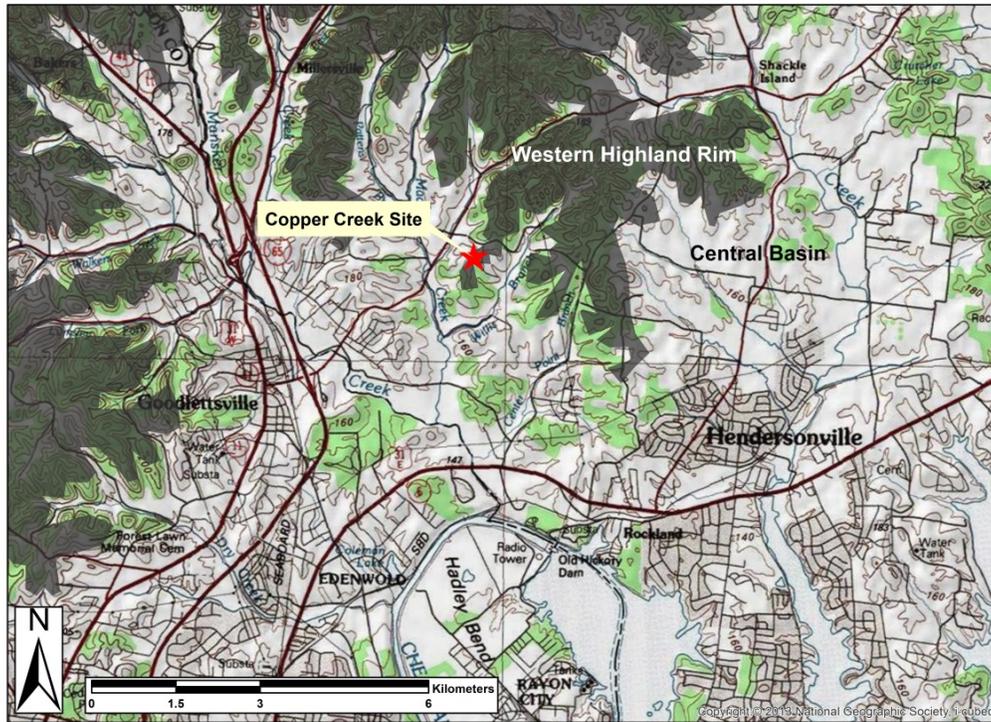


FIGURE 1. Figure 1. Topographic map showing the location of the Copper Creek (40SU317) site.

one of the few multicomponent sites in Tennessee with confirmed Archaic and Mississippian period burials. As a unique example of this type of site, Copper Creek offers archaeologists the opportunity to further assess a site used as a burial ground over such a broad range of time. Use of the Copper Creek site for Archaic and Mississippian period burials may hint at a larger pattern of site use found almost exclusively in the Middle Cumberland River Valley.

Setting

Site 40SU317 is located in Sumner County in the Goodlettsville area, about two miles north of the Cumberland River and 14 miles northeast of Nashville. This previously unrecorded multi-component upland site is in a setting that has attracted humans throughout prehistory, and continues to do so in present day.

The site was established at the

southwestern end of a heavily dissected ridge complex at the transition between the Central Basin physiographic province to the south and Highland Rim physiographic province to the north (Figure 1). The ridgetops are relatively flat at this end of the complex which is flanked by narrow creek valleys. Just below the site area, these small creeks feed into a series of larger creeks that empty into the Cumberland River. Notably, all sites recorded within a five-mile radius of the Copper Creek site are located in the Central Basin. The Highland Rim range is devoid of sites, likely due to the absence of professional archaeological surveys within the area, or possibly this particular portion of the Highland Rim was not disposed to human occupation due to its high relief. Additionally, the site is situated within the Middle Cumberland Region where years of archaeological research have documented a large number of sites dating to periods throughout prehistory



FIGURE 2. Removal of the plowzone from the western extent of the Copper Creek site.

(Broster et al. 2013; Deter-Wolf and Peres 2012; Jolley 1978, 1980; Moore and Smith 2009; Smith 1992).

Investigations

The area east and immediately surrounding the stone-box graves had been graded when site investigations began. Within this already disturbed area were two large pit features observed in the footprint of a house that previously stood on the site. These particular features defined the eastern site extent. However, the ridge area west of the stone-box graves had not yet been graded. This western site portion was a sizable area at a slightly higher elevation that held the potential for additional graves and features. Plow zone removal in this area was monitored and the area carefully stripped up to the limits of construction disturbance (Figure 2). The northern and southern site boundaries were defined by the extent of the ridgetop (Figure 3). The west and east site boundaries were defined by the limits of construction, presence of features in already disturbed areas, and landform limitations. Nearby ridgetops at a similar



FIGURE 3. Ridge formation on which the site was found.

elevation were easily accessible from the site area, suggesting the site may have extended beyond the assigned boundaries.

All possible features more than 30-cm in diameter were bisected and at least 50 percent of the fill removed to determine whether the pit contained a burial. Of the 103 potential features investigated, 56 were deemed cultural and related to the prehistoric ridge occupation (Figure 4; Table 1). Most cultural features were shallow with homogenous fill, less than a meter in diameter, and had little to no artifact content (Figure 5). Five pit features contained heavily burned sandstone cobbles but no evidence that the stones were heated in those pits (Figure 6).

Twenty-five features contained artifacts ranging from just a few pieces of charcoal to a mixture of lithics, ceramics, faunal bone and shell. The highest artifact density came from Features 1 ($n=183$), 13 ($n=120$) and 34 ($n=42$). These artifact totals comprise items found during field excavation as well as lab flotation.

Of the few features that did contain artifacts, only six exhibited temporally diagnostic items (see Figure 4 for their

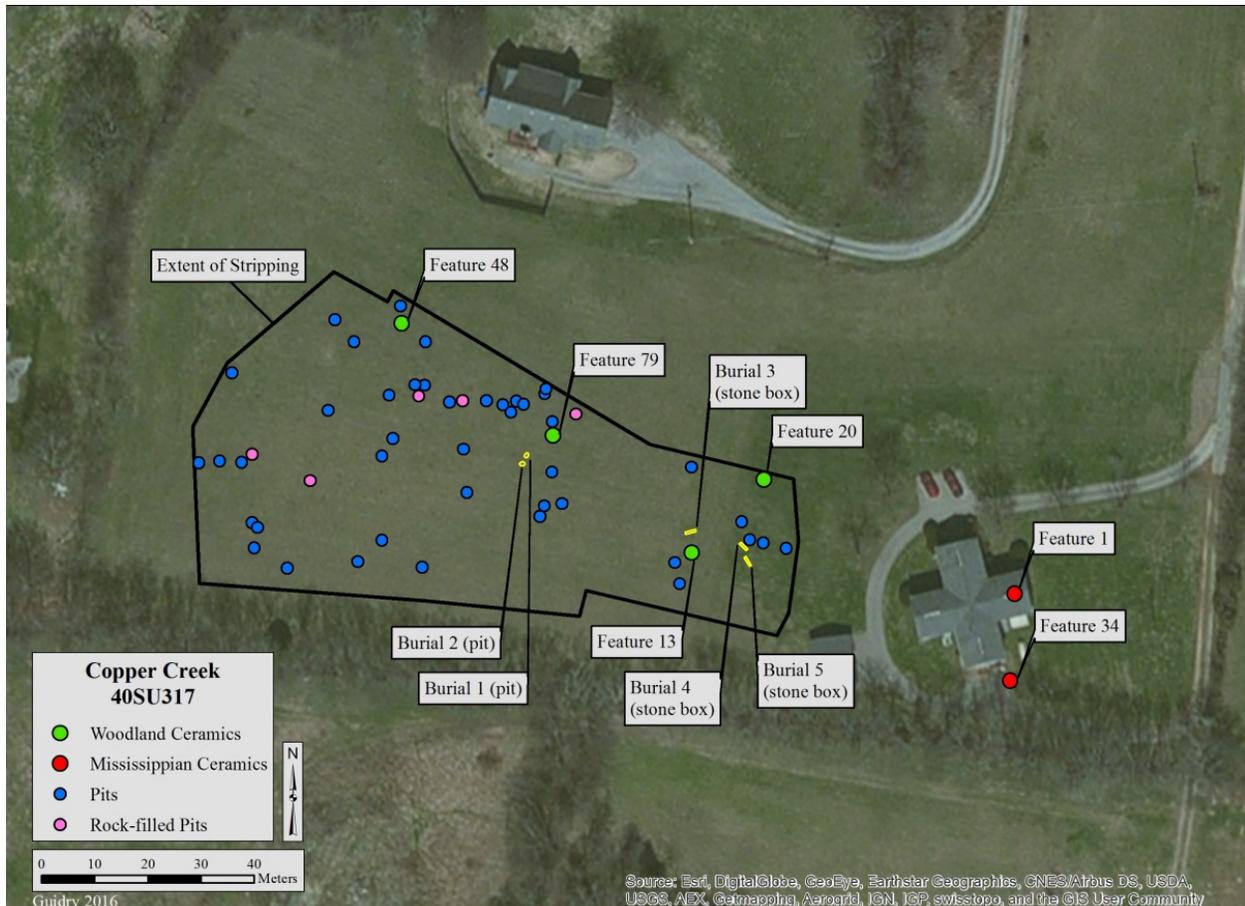


FIGURE 4. Plan map of 40SU317 showing the location of pit features and burials.

locations). Five pits (Features 13, 20, 34, 48, and 79) yielded chert-tempered or quartz/chert tempered ceramics suggesting a Woodland period affiliation. The two larger pits (Features 1 and 34) isolated on the far eastern site area contained shell-tempered ceramics. These two features had survived the house construction/demolition and subsequent grading process, and comprise the only Mississippian general refuse pits at this site. A wood charcoal sample from Feature 1 yielded an uncalibrated radiocarbon date of 570 ± 30 years BP (Beta-442863). This date places the feature sometime between the Regional Period III (ca. A.D. 1200-1325) and Regional Period IV (ca. A.D. 1325-1425) as defined by Moore and Smith

(2009).

A total of 52 features were bisected with eight completely excavated. The TDOA processed flotation samples from 13 non-mortuary features, retrieving a low density of lithic debitage and small ceramic fragments. The flotation process yielded few artifacts, but allowed collection of additional charcoal samples. Thirty-four seeds recovered from Feature 75 were determined to be most likely modern in origin and not related to the prehistoric site occupation (Kandace Hollenbach, personal communication 2017).



FIGURE 5. Plan and profile of Feature 48.



FIGURE 6. Plan and profile of Feature 78 containing heavily burned sandstone cobbles.

TABLE 1. List of Features Investigated at 40SU317 (measurements in cm).

Feature #	Dimensions (n x e)	Shape	Boundaries	Artifacts Noted	Half Excavated	Max Depth	Type
1	172 x 160	Circular	Unknown	Lithics, Ceramic, FCR, Shell, Bone	North		Pit
2	100 x 90	Circular	Diffuse	Charcoal	East	3	Pit
7	120 x 87	Oval	Clear	None	East	55	Pit
8	93 x 74	Oval	Diffuse	None	West	40	Pit
9	83 x 76	Circular	Clear	FCR at base	South	60	Pit
13	100 x 90	Circular	Clear	Ceramics, Lithics, Charcoal	West	21	Pit
14	70 x 67	Circular	Diffuse	None	West	8	Pit
16	64 x 46	Circular	Clear	Charcoal	East	24	Pit
20	190 x 150	Oval	Diffuse	Ceramic, Charcoal	South	35	Pit
23	Not noted	Semi-circular	Diffuse	Charcoal, Lithics, Hammerstone	South	37	Pit
24	114 x 70	oval	Diffuse	Burned Earth	East	21	Pit
26	160 x 152	Irregular	Diffuse	Nutting Stone	East	20	Pit
27	105 x 70	Oval	Diffuse	None	South	27	Pit
28	111 x 72	Oval	Diffuse	None	East	32	Pit
29	94 x 67	Oval	Diffuse/ Clear within	Human Remains	Entire	23	Burial
30	90 x 85	Oval	Diffuse	Human Remains	Entire	10	Burial
31	200 x 45	Rectangular	clear	Human Remains	Entire	none given	Burial
32	177 x 43	Rectangular	clear	Human Remains	Entire	8	Burial
33	193 x 43	Rectangular	clear	Human Remains	Entire	8	Burial
34	290 x 270	Circular	Clear	Ceramics, Burned Sandstone, Burned Earth, Lithics, FCR, Charcoal, Bone	South	35	Pit
35	80 x 75	Circular	Diffuse	Charcoal Flecking, Lithics	South	9	Pit
36	55 x 53	Circular	Diffuse	None	East	31	Pit
37	90 x 80	Circular	Clear	Charcoal Flecking, Lithics	South	7	Pit
39	60 x 49	Oval	Diffuse	None	East	43	Pit
40	100 x 80	Irregular	Diffuse	None	South	20	Pit
42	82 x 78	Circular	Clear	FCR	South	25	Rock Pit
43	70 x 100	Oval	None	None	South	11	Pit
45	68 x 70	Circular		Charcoal, Lithics	South	29	Pit
46	113 x 110	Circular	Clear	Charcoal Flecking, FCR, Lithics, Bone Tool, Silt Stone	South	6	Rock Pit
47	100 x 100	Circular	Clear	Lithics	South	15	Pit
48	80 x 68	Circular	Clear	Lithics, Ceramic, Charcoal	East	33	Pit
49	50 x 56	Circular	Diffuse	None	North	37	Pit
52	60 x 119	Irregular	Diffuse	None	Northeast	20	Pit
54	50 x 62	Oval	Diffuse	Charcoal	South	7	Pit
57	70 x 64	Circular	diffuse	None	West	26	Pit
59	65 x 62	Circular	Diffuse	Burned earth	West	37	Pit
61	60 x 80	Circular	Diffuse	FCR, Lithics, Shale Frags	Whole Feature	23	Rock Pit
63	80 x 70	Circular	Diffuse	Lithics, FCR, Burned Earth	South, then North	40	Rock Pit
65	39 x 44	Circular	Diffuse	Charcoal	South	14	Pit
70	52 x 38	Irregular	Diffuse	Lithics	South	9	Pit
71	32 x 40	Circular	Diffuse	FCR, Burned Earth	Whole Feature		Pit
75	95 x 80	Oval	Clear	Lithics, Charcoal, Seeds	East	17	Pit
78	90 x 86	Circular	Clear	Burned Earth, Lithics, Charcoal	East	22	Rock Pit
79	47 x 62	Oval	Diffuse	Lithics, Ceramic	South	18	Pit
80	69 x 63	Circular	Clear	Lithics, Charcoal	East	25	Pit
81	52 x 37	Irregular	Clear	None	West	14	Pit
82	160 x 79	Oval Linear	Diffuse	Lithics, Charcoal	East	39	Pit
84	72 x 43	Oval	Diffuse	None	West	10	Pit
85	120 x 190	Oval	Clear	Lithics, FCR	West	40	Pit
86	52 x 44	Oval	Diffuse	None	West	18	Pit
88	90 x 115	Oval	Diffuse	Charcoal	North	30	Pit
89	48 x 39	Oval	Diffuse	None	West	10	Pit
91	50 x 37	Oval	Diffuse	None	East	25	Pit
96	30 x 30	Circular	Diffuse	None	South	25	Pit
97	55 x 76	Circular	Diffuse	Lithic Flake	South	10	Pit
103	190 x 80	Linear	Clear	Burned Earth	South	35	Pit
104	35 x 35	Circular	Diffuse	None	East	22	Pit
105	89 x 83	Circular	Diffuse	None	West	20	Pit
106	105 x 122	Circular	Clear	Burned Earth, Charcoal Flecking	North	26	Pit
109	58 x 120	Circular	Diffuse	None	South	20	Pit

TABLE 2. Lithics Recovered from 40SU317.

Provenience	Primary Flake	Secondary Flake	Tertiary Flake	Biface	Biface Frag	Core	Core Tool	FCR	Shatter/Debris	Flake Tool	Scraper	PP/K	Celt	Hammer Stone	Nutting Stone
General Collection	2	5	12	7	16	7	2	4	22	11	3	12	1		
Feature 1	1	7	11						14	4					1
Feature 11			1												
Feature 13			36												
Feature 23			10											1	
Feature 26															1
Feature 34		3			2	2		3	3						
Feature 35		1													
Feature 37			8												
Feature 45	1	3	4						4	1					
Feature 46			2												
Feature 47	1	3	8							1					
Feature 48			12						2						
Feature 61	1				1			5	1						
Feature 70				2	2										
Feature 72					1										
Feature 75									3						
Feature 78									4						
Feature 79									3						
Feature 80									3						
Feature 82			6												
Feature 85	1		3						5						
TOTALS	7	22	113	9	22	9	2	12	64	17	3	12	1	1	2

Artifact Analysis

Lithic Artifacts

A small number of lithic items ($n=296$) was recovered during the site excavations. Roughly a third ($n=104$) were collected from the plow zone during the site stripping process. The assemblage was divided into 15 categories based on morphological and functional traits (Table 2).

The majority of the assemblage ($n=206$; 70%) was classified as debitage composed of primary/secondary/tertiary flakes, flake fragments, shatter, and blocky debris. Other items recovered from the general collection included seven cores, two core tools, 11 flake tools, three side scrapers, one limestone celt/hoes, seven bifaces in various stages of manufacture, 16 biface fragments, and 12 projectile points. The projectile points were representative of Early Archaic (e.g. one Kirk Corner Notched and one Lost Lake) through Early Woodland (e.g. eight Adena and one Copena) periods (Figure 7).

Three well-crafted bifaces found during the stripping process almost certainly came from Feature 70 (exposed



FIGURE 7. Temporally sensitive projectile points recovered from 40SU317 during site stripping.

just below the plow zone interface). This shallow feature had a fourth biface in place on the (stripped) surface, suggesting these bifaces composed a small cache at the base of a feature truncated by past agricultural activity (Figure 8; Tables 1-2).

Additional lithic materials included six additional flake tools, two nutting stones (one from Feature 1), two cores and two



FIGURE 8. Biface cache recovered during the stripping process.

biface fragments from Feature 34, one hammerstone, and twelve pieces of fire-cracked rock.

Ceramic Artifacts

A moderate assemblage of ceramic artifacts ($n=189$) were recovered from six features (Table 3). Two features (1 and 34) contained Mississippian period ceramics, whereas five features (13, 20, 34, 48, and 79) held Woodland period pottery.

Feature 1 ($n=73$) contained 69 Mississippi Plain and four Bell Plain sherds. The Mississippi Plain sample comprised small body sherds less than 4 cm in length (77%, $n=54$), 10 body sherds greater than 4 cm in length, along with six rim sherds (Figure 9). One rim sherd may represent a pan form, but the others were too small to determine the form. Of the four Bell Plain specimens, one was a jar/bottle neck fragment with the other three representing body sherds less than 4 cm in length.

Feature 34 held both Woodland period quartz/chert tempered ceramics ($n=3$ body) and Mississippian period shell tempered sherds ($n=23$ body). The quartz/chert tempered pieces were body sherds less than 4 cm long but noticeably

TABLE 3. Ceramic Artifacts Recovered from 40SU317.

Provenience	Quartz/Chert Tempered	Chert Tempered	Shell Tempered	Shell Tempered Rim
Feature 1			67	6
Feature 13		84		
Feature 20		1		
Feature 34	3		23	
Feature 48		1		
Feature 79	4			
TOTALS	7	86	90	6



FIGURE 9. Rim sherds recovered from the investigations.

thicker than other Woodland period sherds recovered from the site. All 23 shell tempered sherds were defined as Mississippi Plain, with 18 sherds less than 4 cm in length.

The ceramics from Features 13, 20, 48 and 79 were body sherds tempered with chert, or chert and quartz, suggesting these pit features date to the Woodland period. The majority of sherds were small



FIGURE 10. Turkey bone awl, Feature 1.

TABLE 4. Other Artifacts Recovered from 40SU317.

Provenience	Faunal Bone	Shell	Charcoal	Seeds
Feature 1	68	3		
Feature 2			<0.1 g	
Feature 11			<0.1 g	
Feature 13			2.5 g	
Feature 16			<0.1 g	
Feature 20			<0.1 g	
Feature 34	3		1 g	
Feature 46	7			
Feature 48			0.5 g	
Feature 54			<0.1 g	
Feature 75			<0.1 g	34
Feature 78			<0.1 g	
Feature 80			<0.1 g	
Feature 82			0.3 g	
TOTALS	78	3	N/A	34

fragments less than 4 cm in length. All four chert and quartz tempered specimens from Feature 79 had been heavily burned.

Other Artifacts

Animal bone ($n=78$), shell ($n=3$), and seeds ($n=34$) were also discovered in four of the features (Table 4). Feature 1, one of the two Mississippian pits at the site, returned the most faunal remains with 68 specimens although the majority was classified as unidentifiable mammal. Identifiable fragments in this Mississippian feature represent deer ($n=32$), bird ($n=6$), and a single modified bone awl/needle identified as possible turkey (Figure 10). Some of the deer remains exhibited extensive burning that suggests these animals were cooked and consumed at

the site. Feature 1 also yielded three small pieces of unidentified shell.

The remaining faunal sample consisted of small, unidentifiable fragments recovered the other Mississippian pit (Feature 34) and Feature 46. As previously mentioned, the 34 seeds retrieved from Feature 75 were most likely modern in origin (Kandace Hollenbach, personal communication 2017).

Burials

Surprisingly, no stone-box graves beyond the original three (Burials 3, 4, 5) were encountered during the stripping investigation. However, two oval pit burials with flexed individuals (Burials 1 and 2) were discovered (see Figure 4). The two pit burials were in close proximity to one another about 40 meters west of the stone-box grave cluster. No grave offerings were present with any of the burials.

Burial 1 was a tightly-flexed female lying on her left side, facing northwest with the head to the southwest in a 94 x 67 cm pit (Figure 11). Though most of the skull was not present, a full set of teeth were intact including portions of the maxilla and mandible. This adult female was at least 21 years old with fully formed third molars that exhibited slight wear. The remaining teeth exhibited moderate to excessive wear with no visible cavities. The patella displayed no signs of arthritic changes or osteophyte formation supporting the assertion she was a young adult.

Burial 2 was very poorly preserved, and contained only a few fragments of adolescent to adult-sized long bone at the base of a 90 x 85 cm pit.

The mode of interment for Burials 1 and 2 suggested these individuals dated

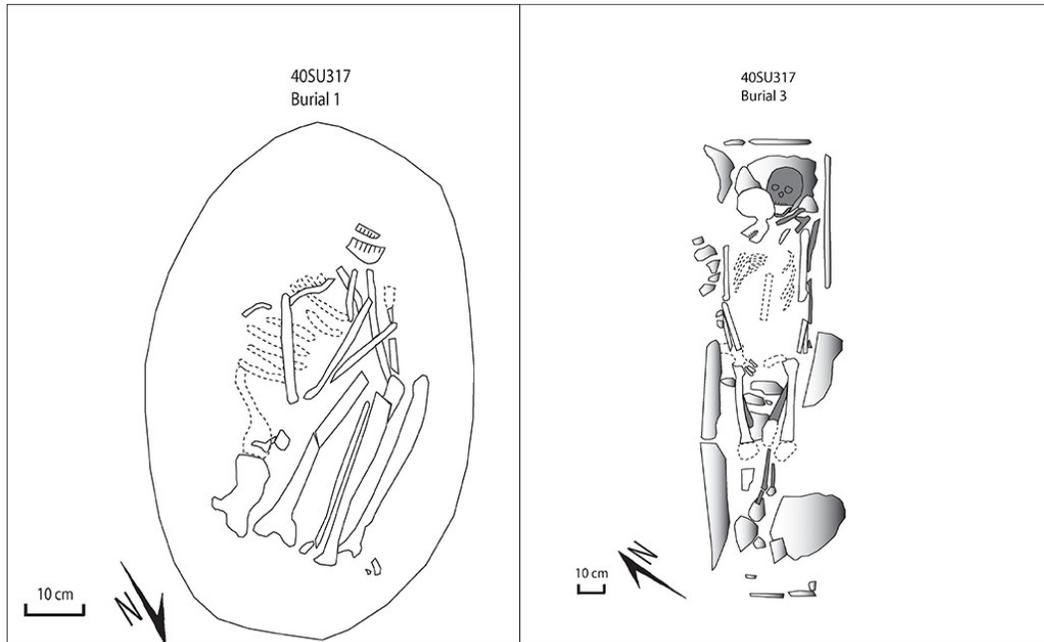


FIGURE 11. Plan drawings of Burials 1 and 3.

to the Late Archaic, or possibly Woodland, period. A wood charcoal sample collected from fill near the base of Burial 1 returned an uncalibrated date of 3000 ± 30 years BP (Beta-442864), supporting the initial burial assessment as Late Archaic.

Regarding the stone-box graves, two individuals (Burials 4 and 5) were far more disturbed than the third (Burial 3). These burials were impacted to some extent by the construction work that led to their discovery, but appeared to have been previously disturbed by agricultural activity. All three stone-boxes had similar dimensions, ranging from 1.7 to 2 meters in length and 43 to 45 cm in width.

Burial 4 retained only small limestone fragments that made up the coffin walls, but enough was left to distinguish the original rectangular shape. The grave floor lacked slabs or any other material, and the coffin long axis was oriented to NW/SE. The poorly preserved remains of this individual consisted of two long bone fragments, unidentifiable flat bone fragments, and a single molar. The visible

remains suggest this grave held a single adolescent to adult individual.

Burial 5 was located one meter southeast of Burial 4 and was also highly disturbed. Like Burial 4, the remnants of this coffin were fragmented, though a rectangular shape was distinguishable. This stone-box was different from the other two as the walls were constructed using a combination of limestone and shale, along with a shale floor. The poorly preserved contents consisted of two long bone fragments. The position of the long bones suggests they are tibiae from an extended adult burial. The long axis of this box was also oriented NW/SE with a difference of only 13° from the Burial 4 orientation.

Burial 3 occurred about ten meters west of Burials 4 and 5. The stone-box coffin, made of limestone, was in better condition and the skeletal remains were better preserved (Figure 11). The fragmented remnant of a probable capstone was present over the box center. The walls were composed of large

slabs set deeper than the box floor that was lined with several smaller slabs roughly pieced together. Two extended adult individuals were interred in this grave, one atop the other. The lower individual was likely male, and we can only say the upper individual may be male. The teeth of both individuals displayed moderate wear with no visible cavities or abscesses. Fully formed third molars indicate both individuals were over the age of 21. The third molars were impacted on both individuals in a similar manner suggesting a possible genetic kinship. This grave was oriented differently with the head end at 16° north of east.

All individuals were reinterred in a new location on the subdivision property. The original burial groupings and orientations were preserved as closely as possible in the new cemetery. A representative of the Tennessee Archaeological Advisory Council was present during the reburial.

Discussion

Site Occupation and Use

The shallow feature depths, and disturbed burials, suggest decades of plowing and erosion along the ridge (along with the house construction) have substantially deflated the site deposits. Despite these disturbances, some initial site conclusions can be made.

The presence of lithic artifacts representing all stages of production indicates stone tools were being produced and/or repaired at the site. High quality chert resources occur in the area, so perhaps the site was used as a base camp to procure this resource from the surrounding vicinity. Recovered ceramics support site occupations lasting more than a few days during the Woodland and

Mississippian periods. Faunal remains found in several features indicate large and small animals were processed and consumed by the site residents. No evidence of permanent structures was found, further supporting the notion of the site area as a temporary processing and/or caching location.

A few temporally sensitive artifacts, along with two samples submitted for radiocarbon dating, indicate the site was used intermittently from the Archaic through Mississippian periods. Based on the feature distribution (see Figure 4), Archaic and Woodland activities appear to have been more oriented toward the western site area, with Mississippian period use being localized to the eastern end. No definitive Mississippian non-mortuary features were found within the western part of the site.

The only features confidently dated to the Archaic period are the two pit burials (Burials 1 and 2) as no other features yielded definitive Archaic period artifacts. However, Early Archaic period projectile points were found during general site collections. The five pits containing fire-cracked rock may date to the Archaic period, as similar features in the region dated to the Late Archaic period are believed to have been used for the special processing of plant and animal resources (Wampler and McKee 2012). Perhaps the Copper Creek site served as a special upland resource procurement and processing site during the Archaic period.

Woodland period use of the site area was affirmed by the discovery of Woodland period projectile points (Adena and Copena) during general site collections, and the presence of Woodland period ceramics in four features. Feature 13 contained the highest number of Woodland period ceramics ($n=84$), with Woodland pottery

and lithic debris present in Features 48 and 79. Feature 34 contained a few Woodland period sherds along with a modest sample of Mississippian period specimens.

These features imply the site was a Woodland period temporary camp with resource procurement, tool manufacture and maintenance, and food preparation/consumption as primary site activities.

As previously mentioned, the two non-mortuary Mississippian features (Feature 1 and 34) were found at the eastern extent of the site. These features contained Mississippian period ceramics, lithic tools and debris, and animal bone. Feature 1 contained the most faunal remains ($n=68$) as well as the only shell fragments ($n=3$) and bone tool recovered at the site. The animal remains and other artifacts (charcoal, nutting stone, and shell tempered pottery) in these features denote the Mississippian residents were living at the site area for multiple days at a time. Not surprisingly, the recovered lithic debris and flake tools suggest items were being made and/or repaired during this period. The Feature 1 bone awl supports hide working as a site activity.

Site 40SU317 lacks any evidence of permanent structures, perhaps supporting the idea of temporary site occupations by native residents. However, structure features (postholes, hearth, etc.) may have been removed by the previously stated modern activities (including agriculture and erosion). A limestone hoe recovered during a general collection suggests farming/gardening was conducted on or nearby the site area.

The Mississippian period stone-box graves occurred away from the Mississippian pit features, and amongst the Woodland period and other non-designated pit features. The stone-box

burial placements here are interesting but ultimately problematic as we do not know the true extent of prehistoric deposits at this site.

At this time, we can discern that the area was initially used by Early Archaic (possibly Late Archaic) and Early Woodland populations as seasonal, short term encampments with burials. Later during the Mississippian period, the site area was reused by prehistoric groups as short-term occupations and a burial ground. A farmstead may have been located at this location (since removed by modern disturbances) or on adjacent ridges. It is also interesting to ponder if burials from multiple time periods indicate this site location may have held significance beyond just resource procurement.

Regional Context

Only one professional archaeological survey has been carried out within a mile of the Copper Creek site (Autry 1982). A number of archaeological investigations, mostly Phase I surveys and Phase II testing for various infrastructure and development projects, have occurred within a five-mile (~8 km) radius (Anderson 2005; Anderson and Keene 1995; Barrett 2012, 2016; Cochrane 2005; Guidry 2014; Hockersmith 2009; Hodge 2000; Johnson 2000; Johnson and Anderson 1996; McKee 2013; McNutt and Quillian 1981; Price 2014; Pritchard 2015; Rawls and Oesch 2016; Taylor 1989; Willard and Cochrane 2004). Phase III projects have been undertaken at a few sites in the area with the express purpose of identifying and removing prehistoric burials (Autry 1982; Benthall 1987; Moore and Smith 2001; Stripling 1987; Taylor et al. 1990; Weaver et al. 2011).

The TDOA site file database has 88

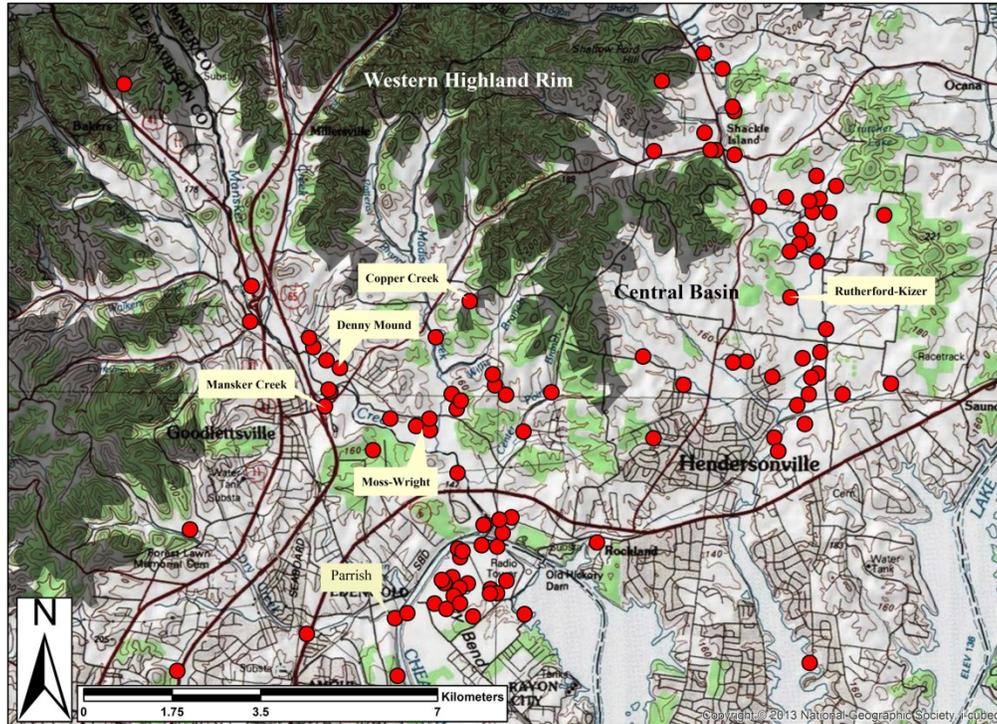


FIGURE 12. Map showing the distribution of prehistoric sites within a five mile radius.

recorded prehistoric sites spread across Davidson and Sumner counties within five miles of the Copper Creek site (Figure 12). Several sites are multicomponent, but when considering individual components there are 42 Archaic sites, 27 Woodland sites, 18 Mississippian sites, and 26 undetermined prehistoric occupations.

The Parrish site (40DV152), which lies about 4 miles southwest of the Copper Creek site, contained both Archaic and Mississippian period burials (Taylor et al. 1990). This is the only site within a five-mile radius of Copper Creek to contain Archaic burials. The Parrish site is also located downstream from where the creeks surrounding the Copper Creek site empty into the Cumberland River. The Parrish site may have served as a more permanent Archaic encampment situated along the resource-rich Cumberland River, with Copper Creek having been used as a specialized, seasonal resource

procurement locale by the same Archaic populations. This settlement pattern has been proposed by others for the region (Deter-Wolf and Moore 2015; Peres and Deter-Wolf 2016).

Two Woodland period sites in the area also stand out. Denny Mound (40SU295), a Late Woodland period burial mound two miles southwest of Copper Creek, was excavated by William E. Myer in 1923 (Myer 1923a). Not much is known about the site as it was destroyed by construction, but Myer's description and the lack of other Woodland period burial mounds nearby suggests this was an important Woodland period site in the area. The Mansker Creek site (40DV53), just south of Denny Mound, was also said to have been a significant site yielding impressive artifacts and burials dated to the Late Woodland period (Autry 1982). Unfortunately, a final report about the site was never completed, but the proximity to

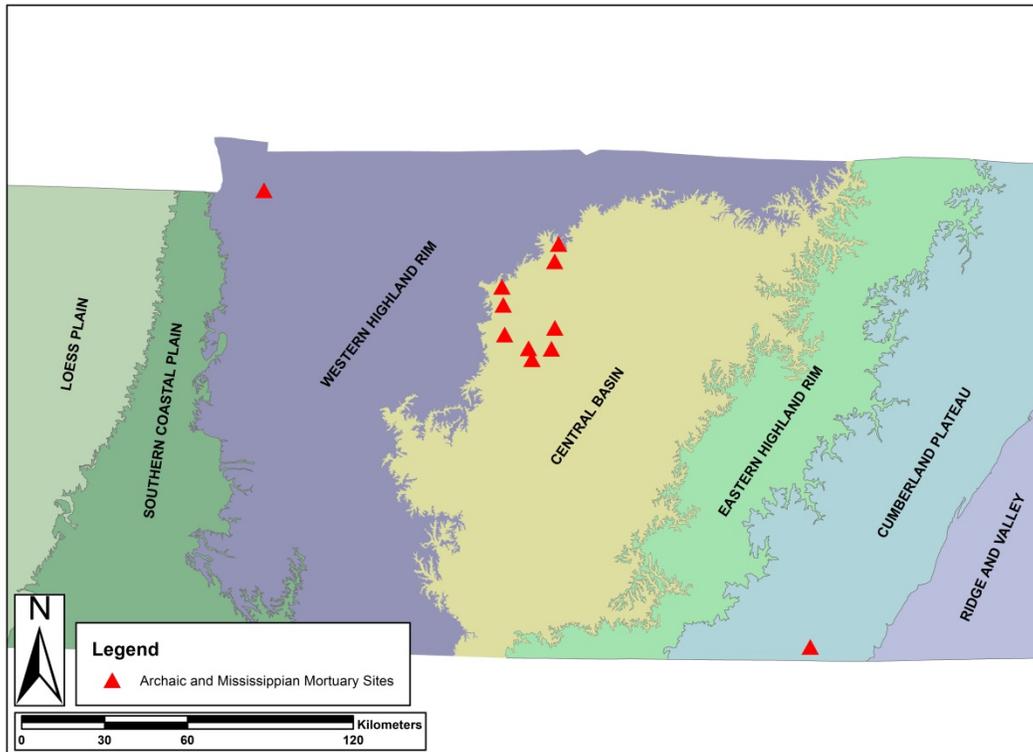


FIGURE 13. Distribution of known sites in Tennessee with both Archaic and Mississippian period burials.

Denny Mound tentatively suggests this site is most likely related to Denny Mound. The proximity of these Woodland sites to Copper Creek implies the lowland Mansker Creek and Denny Mound sites served as more permanent settlements with Copper Creek used as a seasonal resource camp.

Eighteen Mississippian period sites occur within five miles of Copper Creek, including two mound complexes, Rutherford-Kizer (40SU15) and Moss-Wright (40SU20/40SU61). There are also eight stone-box cemeteries in the area (40DV152, 40DV197, 40DV334, 40SU19, 40SU68, 40SU80, 40SU93, and 40SU210). Excavations at these sites have shown the area to have been heavily occupied during the Mississippian period with several sites showing evidence of large sedentary populations (Anderson and Keene 1995; Benthall 1987; Moore

and Smith 2001). The Copper Creek site may represent an upland farmstead or seasonal camp related to these nearby Mississippian mound centers.

Multi-Component Mortuary Sites and the Middle Cumberland

Copper Creek is unusual in Tennessee because it contains both Archaic and Mississippian period interments, which is exceedingly rare in the state ($n=11$ or 0.04% of recorded sites in TN). In fact, prehistoric burials in the upland settings of the Western and Eastern Highland Rims are sparse, occurring at only 117 sites according to the TDOA database. Figure 13 shows that the most frequent occurrences of multicomponent cemeteries with Archaic and Mississippian burials are in the physiographic regions surrounding the

Copper Creek site. Indeed, the majority of these sites cluster within the Middle Cumberland River Valley, though some bias in the data may exist due to incomplete site recording, out of date records, and piecemeal survey coverage.

Archaeological research in the Middle Cumberland Region (Moore et al. 2006) as well as the Middle Cumberland River Valley (Deter-Wolf and Peres 2012), stretches as far back as the nineteenth century and has demonstrated that humans occupied the region as early as 12,100 cal BP (Deter-Wolf et al. 2011; Haywood 1823; Jones 1876; Moore and Smith 2009; Myer 1923b, 1928; Smith 1992; Thruston 1897). This research has revealed several unique traits and practices that distinguished the Middle Cumberland Mississippian populations from other Mississippian groups with burial practices being one such example (Brown 1981; Dowd 2008; Ferguson 1972; Moore and Smith 2009; Smith 1992).

The Mississippian occupants may have unknowingly buried their dead in areas where Archaic period interments already existed, as they were occupying many of the same site locations for similar resources. There is also the possibility, however, that Mississippian groups were intentionally burying their dead in these older burial grounds, perhaps in an attempt to establish their culture and traditions (and maybe dominance) on the landscape. A similar hypothesis has been proposed for the Upper Hampton Farm site (40RH41) in East Tennessee where a Late Woodland burial mound was purposefully altered by a Late Mississippian period population (Dalton-Carriger 2011).

This could be the comparable case for Copper Creek, as the Mississippian stone-box graves were clustered together

40 meters away from the Archaic burials and no Mississippian period features were found on the western extent of the site. Such an arrangement suggests some form of intentionality in the placement of Mississippian graves and avoidance of specific areas at Copper Creek.

The beginning of the Mississippian period in the Middle Cumberland Region was marked by an influx of non-local people from the north and west who began to build mound sites, mainly along the western periphery of the Middle Cumberland Region, as early as A.D. 1000 (Moore and Smith 2001, 2009; Moore et al. 2006; Norton and Broster 2004; Smith 1992; Smith and Moore 1994; Spears et. al. 2008). Evidence from the Mansker Creek and Denny Mound sites suggests the area around Copper Creek retained Late Woodland period populations, which may have still been in existence when non-local groups entered the region (Autry 1982). This could explain why no Mississippian period graves were found in these Woodland period burial sites as they were still occupied when these non-local people arrived. The construction of mound sites and the interment of Mississippian people at other local sites of importance (such as Parrish and Moss-Wright) may then represent an attempt by incoming non-local Mississippian populations to establish themselves in the area. This behavior may be unique to the Middle Cumberland Region, as this type of multi-component burial site is found almost entirely in this region. Perhaps then this represents another unique practice of Middle Cumberland Mississippian populations. This is a tenuous hypothesis, and the authors readily acknowledge additional evidence is necessary. Further study of other sites with multi-component burials in the region is needed to explore

this idea, and will be a focal point of research in the future.

Conclusion

The Copper Creek site represents an interesting case study that seeks to understand how the Highland Rim upland areas were used and settled throughout prehistory. While these areas only appear to represent ephemeral short term resource procurement camps, the Copper Creek site has proven to be quite unusual through use as a burial ground for Archaic and Mississippian populations. This form of multicomponent burial site does appear to cluster in the Middle Cumberland Region/Middle Cumberland River Valley (Moore et al. 2006; Deter-Wolf and Peres 2012) and can perhaps be understood as another characteristic that distinguishes this region. Further study is needed to better understand what type of significance, if any, such sites hold and how they may fit into the larger framework of the Middle Cumberland Mississippian period.

Notes: A large portion of the site information comes from the Tennessee Division of Archaeology state site files and GIS database. The Division site files are a dynamic database which is updated on a daily basis. Consequently, the data regarding site quantities and temporal affiliations which we include here represent the character of the overall site file record as of April 2017. We encourage future researchers to consult the site files directly regarding site locations, temporal affiliations, and level of investigation, rather than relying on earlier published data.

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through analysis of photographs of the skeletal remains. Sarah Levithol Eckhardt, Aaron Deter-Wolf, Mike Moore, and Paige Silcox with the Tennessee Division of Archaeology (TDOA) participated in the excavations. The TDOA facilitated flotation of site samples and procurement of radiocarbon dates for the site. A special thanks to Kandace Hollenbach of the Department of Anthropology at the University of Tennessee Knoxville for quickly examining the botanical remains recovered from the flotation samples and providing her analysis for this publication. We would also like to thank the Phillips Builders, a Meritage Homes Company, for allowing TDOA staff on-site to assist with the excavations and for donating the recovered artifacts to the TDOA.

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RELATIONSHIPS AND TRAUMA: LIVED PERSPECTIVES AT AVERBUCH

Giovanna M. Vidoli and Heather Worne

The Averbuch site (40DV60) in the Middle Cumberland Region (MCR) has been extensively studied but remains a mystery. Salvage excavations in the 1970's revealed a village site with three cemeteries and a palisade wall. The three cemeteries were in use during different periods of Averbuch's site history allowing examination of changes in trauma frequencies and biological relationships through the site's short occupation period. Cranial measurements were collected from skeletal remains from Cemeteries 1 and 3, and combined with trauma data. The biological distances, or how similar groups of individuals are to one another, were compared between the two cemeteries and three other sites in the MCR. The results indicate that as relationships with other MCR sites changed, trauma at the site decreased through time. In addition, the individuals buried at Cemeteries 1 and 3 were less biologically similar to each other than to other sites in the region providing a possible explanation for the construction of the palisade through Cemetery 3.

Averbuch (40DV60) is one of the most extensively excavated and studied Mississippian sites in the Middle Cumberland Region (MCR), an area in north central Tennessee that encompasses modern-day Nashville. Despite multiple dissertations, theses, and papers (e.g., Berryman 1981; Cobb et al. 2015; Fojas 2016; Guagliardo 1980; Hamilton 1999; Jablonski 1981; Jones 2006; Kelso 2013; Klippel and Bass 1984; Muendel 1997; Wehrman 2016) about Averbuch, the site remains an enigma in the MCR: it is a village site located on a small tributary stream with a high population density inhabited over a relatively short occupation period. In addition to its seemingly remote location, soil catchment analysis indicates agricultural potential was low in the region of Averbuch (Charles Cobb, personal communication 2010).

Moreover, previous bioarchaeological analyses indicate that residents at the Averbuch site experienced considerable biological and social stress (Berryman 1984; Eisenberg 1986, 1991a, 1991b; Worne et al. 2012). Analyses of stable

isotope data and botanical remains from the site indicate an extreme dependence on maize as well as a narrow range of flora exploitation (Buikstra et al. 1988; Crites 1984). Finally, a palisade wall was constructed during the mid to late 14th century (Cobb et al. 2015), indicating possible threat of attack. In this current research, we attempt to combine trauma and population movement data from Averbuch in order to provide insight into this well studied, yet mysterious, site in the Middle Cumberland Region.

The Middle Cumberland Region was arguably one of the most densely populated regions during the Mississippian period (A.D. 1000-1450) with over 400 known sites (Cobb and Gillam 2008; Moore and Smith 2009:208). The region is within the Nashville Basin, and is between the confluence of the Cumberland River with the Red River to the west and the Caney Fork River to the east (Moore et al. 2006). The region has limited entry points with the Eastern Highland Rim to the east and the Western Highland Rim to the west. However, there is archaeological evidence of inter-

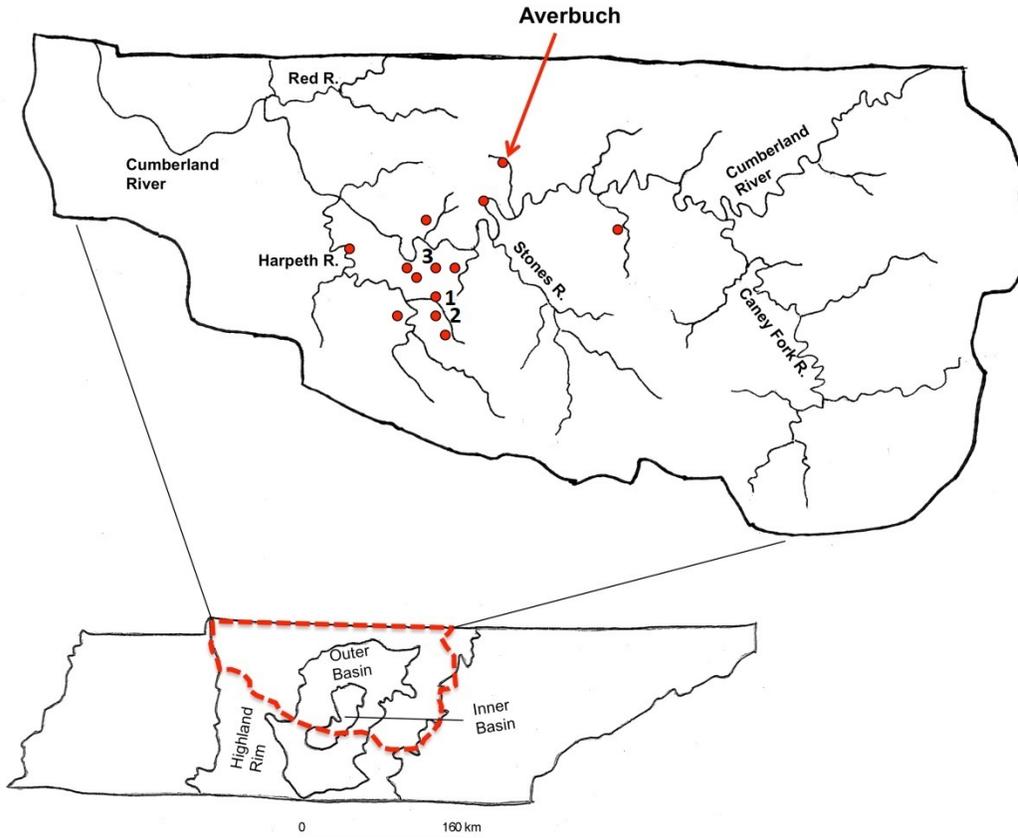


FIGURE 1. Middle Cumberland Region with Averbuch indicated with an arrow and other MCR sites mentioned in current research enumerated (1= Arnold; 2= Brentwood Library; 3= Cain’s Chapel) (after Smith and Moore 1999:95, Fig. 9.1).

TABLE 1. Dates for Averbuch Features from Cobb et al. (2015).

Locale	Dates (cal. A.D.) ¹	Burials recovered ²
Cemetery 1	Post A.D. 1410	564
Cemetery 2	1275-1395	98
Palisade	Post A.D. 1350	
Cemetery 3	Pre A.D. 1405	190
Averbuch	1265-1475	Total: 852

¹From Cobb et al (2015), Primary Model 68.2% Probability

²Does not include burials under structures

regional contact and exchange networks including documentation of marine shell, Dover chert, copper, and Cahokia cordmarked ceramics (Smith and Moore 1999). The area is also within the boundaries of the Vacant Quarter (Cobb and Butler 2002; Williams 1990) and there is no evidence of any new settlements after A.D. 1475 (Moore and Smith 2009).

Averbuch is located north of Nashville

(Figure 1) near Drake Branch, a tertiary river branch of the Cumberland River. The village site was excavated between 1975 and 1978 as part of salvage operations ahead of construction of a subdivision (Klippel and Bass 1984). Sixty-nine percent of the site was excavated resulting in a total of three cemeteries, 886 burials, 22 domestic structures, and a palisade wall. The vast majority of burials were located in one of the three discrete cemeteries; however, infants were primarily interred under structure floors (Berryman 1981). Berryman (1981) suggested the site’s population size was between 821 to 1369 inhabitants. Though more recently, Cobb and colleagues (2015) suggested there were likely between 100-200 individuals living at

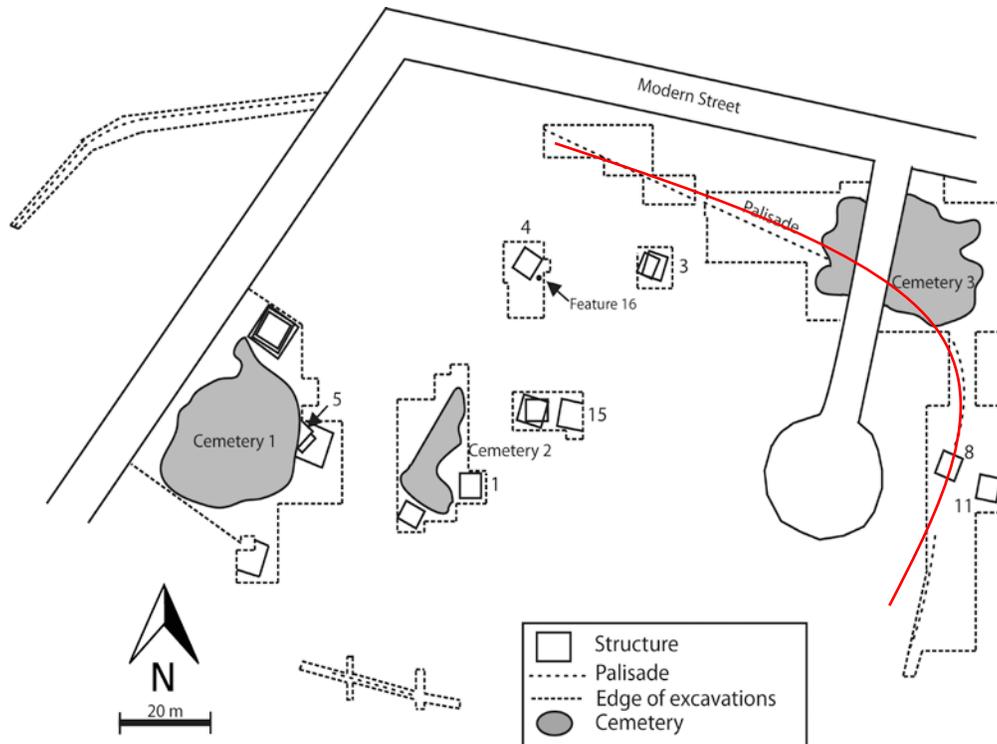


FIGURE 2. Averbuch with location of cemeteries and palisade (in red) going through Cemetery 3 (Cobb et al. 2015, Figure 2; used by permission).

Averbuch at any one time. Bayesian modeling of radiocarbon data indicates that the site was occupied for approximately 200 years, from cal. A.D. 1265-1475 (Cobb et al. 2015).

The dates reported here from Cobb and colleagues (2015) (Table 1) are the calibrated dates with 68.2% probability. Per Cobb et al. (2015), probability distributions for some structures overlap and it is difficult to determine the actual sequence for most of the dated structures. However, Averbuch's occupation began around A.D. 1240-1385, which may be around the same time individuals were interred in Cemetery 3. The palisade wall intrudes upon Cemetery 3, suggesting the Cemetery had already been in use prior to the erection of the wall and that, perhaps, the wall construction had been a hurried event (Figure 2). The palisade predates Cemetery 1 but there may be some overlap with Cemetery 2. Therefore,

individuals buried in Cemetery 3 predate both Cemetery 1 and 2, and the palisade was likely constructed before Cemetery 1.

Previous Research

Recent research (Vidoli 2012) examined the biological distances among 13 sites in the MCR. Information on biological relationships can be gleaned using cranial measurements and non-metric traits, which have a heritable component. Groups with shared traits or cranial morphology have smaller biological distances and reflect a common population history with gene flow among the groups. On the other hand, large biological distances reflect less shared traits and less gene flow, or population movement, among the groups. The most common biological distance measure for metrics is the Mahalanobis generalized distance (D^2). The Mahalanobis D^2 is the

summed squared Euclidean distance and represents the minimum possible biological distance between groups by maximizing the *between-group* variance to the pooled *within-group* variance (Pietrusewsky 2000, 2008).

Gene flow not only makes populations more similar but it also introduces new genes in a population adding to the genetic variation of that group (Hartl and Clark 2007; Mielke et al. 2006). Deviations from the expected genetic variation, which is based on the assumption that all groups are exchanging genes equally and also receiving the same amount of external genes, can reveal information about the level of external gene flow or genetic isolation (Harpending and Ward 1982). As a result, the amount of extralocal gene flow present in a particular group compared to the other groups can be calculated allowing comparisons of which groups received more than expected gene flow, or migrations, from *outside* the region.

Williams-Blangero and Blangero (1989) provided an analytical framework that allows *genetic* inferences of a population based solely on *phenotypic* data. This allows the application of phenotypic traits into a model-bound, direct population genetic framework for studies of population structure rather than just comparing similarities and differences between populations, including cranial measurements. Extending further, the Relethford and Blangero (1990) model for phenotypic traits estimates expected versus observed phenotypic variance (genetic heterozygosity when using phenotypic traits) as indicators of more or less than expected gene flow from external sources. The magnitude of the difference, called the residual, indicates the amount of average gene flow. A

positive residual indicates higher than expected levels of gene flow from external regions while a negative residual indicates less than expected externally derived gene flow. Complete derivation of these models and equations can be found in Williams-Blangero and Blangero (1989), Relethford and Blangero (1990), Relethford et al. (1997), and Stojanowski (2004).

Vidoli's (2012) prior research indicates that individuals residing at Averbuch had small biological distances, and hence a strong biological relationship, with Arnold (40WM5), Brentwood Library (40WM210), and Cains Chapel (40DV3) that comprise MCR populations to the south (see Figure 1). Arnold, approximately 23 km south of Averbuch, was a nucleated village site located on the north bank of the Little Harpeth River with a radiocarbon date of A.D. 1142-1302 (Ferguson 1972; Moore and Smith 2009). Brentwood Library was a nucleated village site approximately 3.6 km to the south of the Arnold site. It is one of the later sites in the MCR with radiocarbon dates of cal A.D. 1298-1465 (Moore 2005: 119). Cains Chapel is approximately 9.1 km south of Averbuch and its uncalibrated radiocarbon dates are A.D. 1175 to 1265 (Benthall 1976, 1983; Moore and Smith 2009:86). Exact site boundaries are unknown but a platform mound, three additional mounds, a palisade line, and house structures have been recorded in an area of approximately 320 acres (Benthall 1983). Despite the geographic distance, the biological distance results indicate that residents at Averbuch had a shared population history with the communities at Arnold, Brentwood Library, and Cains Chapel (Vidoli 2012) and are hence also the focus in this current research.

A comparison of regional population differentiation, or F_{ST} values, between

early (primary occupation prior to A.D. 1200) and later (post A.D. 1200 primary occupation) sites in the MCR shows that later sites, including Averbuch, had a lower F_{ST} indicating more population movement and intra-regional migration in the MCR, a larger regional population size, or a combination of both. The regional F_{ST} results suggest that as the population in the region expanded during the Late Mississippian period, social boundaries dissolved and population movement became relatively unrestricted in the MCR. While Smith (1992) and Worne (2011) suggest that villages may have maintained territorial boundaries through conflict, the biological distance data indicate that social and biological boundaries in part were fluid and people moved around the landscape relatively freely by the time Averbuch was established (Vidoli 2012).

Despite evidence of intra-regional movement of people among the sites within the MCR, archaeological and bioarchaeological support for intergroup conflict has been documented for Mississippian sites throughout the MCR. Victims of violence show evidence of cranial blunt force trauma, projectile injuries, decapitation, scalping, and other instances of sharp force trauma (Berryman 1981; Broster 1988; Moore et al. 2006; Worne 2011). Depictions of violent encounters, decapitated heads, weaponry, and scalplocks have been documented from sites in the region (Holmes 1891; Smith 1992; Thruston 1897). While at Averbuch, no such iconography has been noted, the construction of a fortification wall indicates that residents were concerned with village defense (Berryman 1981; Klippel and Bass 1984).

Recent bioarchaeological analyses for Mississippian sites throughout the MCR

revealed an apparent increase in violent cranial injuries among adults after A.D. 1325 (Worne 2017). This increase was only statistically significant when both injuries indicative of intergroup violence (i.e., scalping) and those more commonly associated with intragroup violence (i.e., healed cranial blunt force trauma) were included, suggesting that the threat of violence originated from both outside and within the communities.

Overall, the frequency of intergroup violence during the Mississippian period in the MCR is not as high as has been reported for sites in other regions (i.e., Koger Island in northwestern Alabama [Bridges 1996], Norris Farms #36 [Milner et al. 1991] and Orendorf [Steadman 2008] in west-central Illinois). However, these studies report exceptionally high frequencies and likely do not represent the variability that existed. Similar to data from the Chickamauga Reservoir in Eastern Tennessee (Smith 2003), violent injuries consistent with intragroup, or interpersonal, violence occur more frequently in the MCR sample than the above mentioned sites in Alabama and Illinois.

These biodistance and trauma results together support the notion that towards the end of the Mississippian period in the MCR, a common social identity may have been shared among the sites and throughout the region. While self-identity may not be easy to discern in the archaeological record, a shared group or social identity may manifest in regional material culture, shared landscape, and common burial practices, which we see in the MCR (Broster 1988; Moore and Smith 2009; Smith 1992). In addition, there is evidence of gene flow among the sites in the MCR or, described another way, evidence of mate exchange among the different sites. While this shared identity

TABLE 2. Cranial Measurements included in this Research (following Buikstra and Ubelaker 1994)

Maximum cranial length
 Biauricular breadth
 Upper Facial height
 Minimum facial breadth
 Upper Facial breadth
 Nasal height
 Orbital breadth
 Orbital height
 Parietal Chord
 Mastoid length
 Mandibular body breadth

was not present as the area was being established, continual population growth, trade, a circumscribed geographic landscape enclosed by the Highland Rim, and a common resource base (the Inner Basin) may have resulted in a more communal identity and fluid population movement with instances of intergroup conflict. This may suggest that the Southeast was composed of groups of people with regional ethnic identities scattered in small pockets throughout the Mississippian landscape.

This current research places the focus back on Averbuch. In this research we seek to answer: Who settled at Averbuch? Did the groups buried in each cemetery share a common population history? Did the site's population history affect the nature or scale of conflict within Averbuch? This information will provide a closer look at this site which has long held the imagination of the MCR. We will then place the site back within the larger context of the MCR.

Methods

Cranial measurements and non-metric traits were recorded from all adult intact or fragmentary skulls at the Averbuch site, however only cranial measurements can be utilized for calculation of extra-local

gene flow and we focus only on those in this study. The authors originally collected 30 cranial and mandibular measurements following *Standards for Data Collection from Human Skeletal Remains* (Buikstra and Ubelaker 1994). Measurements that were recorded on less than 50% of all Averbuch individuals were removed from further analysis. The effect of young (16-20 years), middle (20-35 years), and old (35 and over) age categories on measurements was tested using the Kruskal-Wallis non-parametric test for independent samples. These analyses were repeated with the Arnold, Cains Chapel, and Brentwood Library sites. After ensuring the remaining measurements were normally distributed, missing values were estimated for male, female, and unknown sex groups individually. Missing values were estimated with Maximization Likelihood (ML), specifically the EM algorithm of SPSS (v.20). Subsequently, males and females were pooled and their measurements converted to standardized z-scores to account for size differences related to sex (Relethford et al. 1997). Once the final 11 cranial measurements (Table 2) were standardized, RMET 5.0, a program written by John Relethford, was used to calculate the minimum genetic distances and genetic variation of cranial measurements for individuals from each cemetery at Averbuch, Cains Chapel, Brentwood Library, and Arnold sites. While prior research found that individuals at Averbuch were more closely related to Arnold, Cains Chapel, and Brentwood Library (Vidoli 2012), those results were based on considering Averbuch as one homogenous site. Hence, in this research, we are examining if individuals in different cemeteries shared a different population history with these earlier sites. Using these results in conjunction with the

trauma patterns reported elsewhere (Worne 2017) at Averbuch we can begin to gain a more nuanced understanding of the site history.

Results

Eight measurements were recorded on less than 50% of all individuals from Averbuch and were removed from further analysis. Unfortunately, there were only four individuals from Cemetery 2 with over 50% of the cranial measurements present so the comparative metric analysis was limited to Cemeteries 1 and 3 (Table 3). Three measurements were found to have significant correlation with age, leaving 19 traits for analysis. Once the analyses were repeated with Arnold, Brentwood Library, and Cains Chapel burials, an additional eight traits had to be removed from analysis leaving 11 traits for biodistance and phenotypic variance analysis.

Examining the biodistance data (Table 4), the populations with the smallest biological distances (D^2) have the most biological similarity. The results indicate that the individuals in Cemetery 3, the earliest cemetery at Averbuch, are more biologically similar to individuals from Arnold, Brentwood Library, and Cains Chapel than to individuals in Cemetery 1 ($D^2=0.023507$). Cemetery 1 individuals are more biologically close to individuals from Brentwood Library ($D^2=0.0000$) and least similar to residents from Cemetery 3. These results indicate that Averbuch was, in fact, not a homogenous site but experienced population shifts during its short occupation period. In addition, there was more than expected external gene flow in Cemetery 3 than Cemetery 1, as indicated by the positive residual (Table 5). The residual results for Arnold, Brentwood Library, and Cains Chapel are

TABLE 3. Number of Individuals Included in Biological Distance Analysis.

Site	Individuals
Cemetery 1	53
Cemetery 3	17
Arnold	18
Cains Chapel	40
Brentwood Library	39

TABLE 4. Minimum Genetic Distances (D^2) for the Cranial Measurements.

Population	Cemetery 1	Cemetery 3	Arnold	Cains Chapel	Brentwood Library
Cemetery 1	0				
Cemetery 3	0.023507	0			
Arnold	0.013127	0.005608	0		
Cains Chapel	0.001632	0.000000	0.003691	0	
Brentwood Lib	0.000000	0.0057841	0.009621	0.012628	0

TABLE 5. Relethford-Blangero Results for Metric Traits.

Population	r_{ij}^*	Observed variation	Expected variation	Residual
Cemetery 1	0.002564	1.008	1.077	-0.068
Cemetery 2	0.000000	1.186	1.079	0.106
Arnold	0.000000	1.503	1.079	0.424
Cains Chapel	0.000000	0.808	1.079	-0.272
Brentwood Library	0.000000	0.889	1.079	-0.190

* r_{ij} is the genetic distance of subpopulations to the centroid (Harpending and Jenkins 1973).

discussed elsewhere (Vidoli 2012).

Worne (2017) compared skeletal samples from the earlier cemetery (Cemetery 3) and the later cemetery (Cemetery 1) and found that cranial trauma actually appears to decrease overall among adults; however, these results were not statistically significant (Worne 2017). This apparent decrease occurs following the erection of the palisade wall. A closer look at the results reveals that this shift is only statistically significant for overall trauma and scalping among the male samples. Frequencies of healed cranial blunt force trauma (more often associated with intragroup violence)

remained similar overtime among males. Interestingly, although not statistically significant, female cranial trauma associated with both intergroup and intragroup violence appears to have increased between Cemetery 3 and Cemetery 1 (Worne 2017).

Discussion

Although violence appears to have increased in the MCR during the Mississippian period after A.D. 1325, this trend does not seem to have continued into the 14th century at the Averbuch site. While males experienced a significant decrease in the frequencies of intergroup trauma, injuries associated with intragroup violence remain similar. Although not statistically significant, females experienced an increase in all types of violent injuries. It appears that around the time that the palisade wall is constructed at the site, we see shifts in not only the intensity, but also the nature of violence.

The decrease in trauma over time among males at Averbuch may be related to a number of factors both within Averbuch and the MCR as a whole. Moore and Smith (2009) suggest that during the later Mississippian period there was a shift away from a centralized authority in the MCR toward more village centered social organization. This geopolitical shift may have compelled villages in the MCR to fission into smaller groups. Beck (2003) examined fission and fusion as settlement pattern processes. Conflict may propel new villages and new social relationships to be established as multiple villages aggregate physically, socially, and biologically (fusion). The presence of an outside threat would result in social cohesion and villages grouping together, perhaps behind palisade walls, as a means of community defense. On

the other hand, village fissioning occurs as a result of intragroup violence in the absence of a social conflict mitigating institution (Bandy 2004). Therefore, the “metacommunity,” (Turchin 2011) or what Anderson (1996) calls “complex chiefdoms,” sooner or later fission into smaller communities if there is absence of an outside threat or there is social or political instability within the community.

The closer biological relationship between Cemetery 3, the earlier cemetery at Averbuch, with other sites in the MCR imply that Averbuch was settled, in part, as a result of population movement and fusion from other MCR villages to Averbuch. In addition to higher frequencies of intergroup trauma, Cemetery 3 also has evidence of more than expected extralocal gene flow when compared with Cemetery 1 implying that the people who first settled into Averbuch may have partially come from outside the MCR. In addition, Cemetery 3 has fewer Noel style ceramic bowls than Cemeteries 1 and 2 (Cobb et al. 2015:50). Noel bowls serve as a horizon marker for the later Mississippian period in the MCR (Moore and Smith 2009:211-213); however, the different distribution among the cemeteries may indicate not only a different time period but also possibly a different population history. As a result, the current biodistance and trauma data support coalescence of individuals from outside the region and within the MCR during a period of more intense violence. In addition, individuals from Cemetery 1 show a closer relationship to other sites within the MCR than to individuals within Cemetery 3. Yet, the biological distances between Cemetery 1 and these sites are slightly larger during this later period, except for Brentwood Library. Importantly, there is also less evidence of extra-local gene flow into Cemetery 1. A possible

explanation for decreased trauma frequencies in Averbuch over time could be increased intra-regional population movement and decreased inter-regional population movement.

In addition to a shifting geopolitical landscape, the population movement and decreased trauma may be related to an overall reduction of population density in the MCR as well as much of the Midsouth. If the population had already begun to decline throughout the MCR and the greater Southeast, the threat from external groups may have waned as well. The biodistance data also demonstrate reduced extra-local gene flow regionally throughout the MCR after A.D. 1250 (Vidoli 2012) and at a site level between Cemeteries 3 and 1 at Averbuch. Hence, the regional depopulation and decrease of people from the outside would have led to less threat of violence in the region.

Another possible reason for the decrease in intergroup violence may be that defensive measures, such as the erection of a palisade wall, protected residents from external attacks. The palisade at Averbuch was constructed in the mid-1400s and partially runs through Cemetery 3. The timing of construction of the fortification at Averbuch corresponds with decreasing frequencies of trauma at the site. Averbuch is one of the few sites in the Southeast where we can compare trauma frequencies before and after palisade construction and this clearly indicates a decrease in trauma following the erection of the wall. Given the seemingly hurried placement of the palisade and the skeletal evidence for violent trauma, intergroup conflict was a very real threat to the Averbuch community.

What remains uncertain is whether the people who built the palisade had no social memory of Cemetery 3, or if they

recalled the cemetery location but the persistent threat of violence necessitated a quick wall construction. The biodistance and trauma data from Averbuch provide a possible explanation. The individuals from Cemeteries 1 and 3 are less biologically similar to each other than they are to other sites in the MCR. As mentioned above, some individuals from Cemetery 3 may also have had a different population history from either Cemetery 1 or other sites in the region. Therefore it is quite possible that the individuals who built the palisade either did not have a social memory of the cemetery or did not have a close biological, personal, or social connection with the individuals buried in Cemetery 3. Hence the lack of social or biological affinity to individuals in Cemetery 3 precipitated the construction of the palisade through the cemetery.

Conclusion

This current research highlights the relationship among changing population demographics and population history and trauma at Averbuch. It allows further understanding of a site that has been, until recently, viewed as homogenous and with few differences among the cemeteries. However, we have revealed not only shifts in the nature and intensity of violence, but also in the biological relationships of people buried at Averbuch with the MCR as a whole. While intergroup violence appears to have decreased over time at the Averbuch site, injuries consistent with intragroup violence remained similar. The increased proportion of these types of injuries may reflect the escalating biological and social stress experienced in the community. Future demographic and paleopathological analyses of the Averbuch and other MCR skeletal samples will

hopefully shed light on the biosocial consequences of the changing population dynamics.

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MIDDLE CUMBERLAND MISSISSIPPIAN ARCHAEOLOGY: PAST, PRESENT, AND FUTURE DIRECTIONS¹

Kevin E. Smith and Michael C. Moore

For over three decades, the authors have partnered together and worked independently to conduct research on the late prehistoric Mississippian peoples of the Cumberland River valley both upriver and downriver of modern Nashville, Tennessee. That partnership, loosely formalized as the Middle Cumberland Mississippian Survey Project, has included archaeological testing and salvage archaeology, documenting and re-visiting curated collections, archival research, and supporting the efforts of other researchers. Here, we present a summary of our understanding of the over two centuries of digging, collecting, and research on the Mississippian peoples of the Middle Cumberland Region.

One seemingly simple cultural practice of the late prehistoric peoples of the Middle Cumberland Region of Tennessee served to bring them to prominence in the recent past -- beginning by around A.D. 1200, they elected to bury most of their dead in form-fitting stone-lined boxes (Dowd 2008). Even relatively unsophisticated Euro-American and African-American observers were hard-pressed not to notice these stone-lined coffins while digging foundations and ditches or simply while plowing their newly turned fields. As early as 1805, Dr. Rush Nutt would describe in great detail the discovery of such a cemetery at the home of Judge John Overton, a portion of which reads (Jennings 1947):

In digging the cellar under one part of [John Overton's] house (20 feet square) was taken up at least 35 or more human skulls & a vast number of bones. In running a post & rail fence where ever a hole was made there was to be got bones. This appears as if the whole face of the enclosed earth was used as burying places....

Despite the ensuing speculations about who they might have been, where they came from, and where they went,

they were quickly labeled as the "Stone Grave People" of Tennessee.

Defining "Middle Cumberland Mississippian" in Time and Space

Before presenting a narrative history of the study of Mississippian culture in Middle Tennessee, some context on the chronology and geographic extent is warranted. Bob Ferguson (1972:3, 5) was the first to publish the term "Middle Cumberland Culture" in reference to the late prehistoric peoples of the area in and around Nashville:

Middle Cumberland Culture subsumes such local expressions as "Stone Grave Peoples" and "Gordon People" and is considered to be the final prehistoric culture development in the area... While local interest in the stone graves has not waned, the light of present-day theory and technique has been slow to shine along the Cumberland. As a result, this significant manifestation of the Temple Mound II period in Middle Tennessee has not been adequately reported. It is hoped that the present series of studies will help bring into focus the emerging picture of the Middle Cumberland Culture.

That reference term would serve for

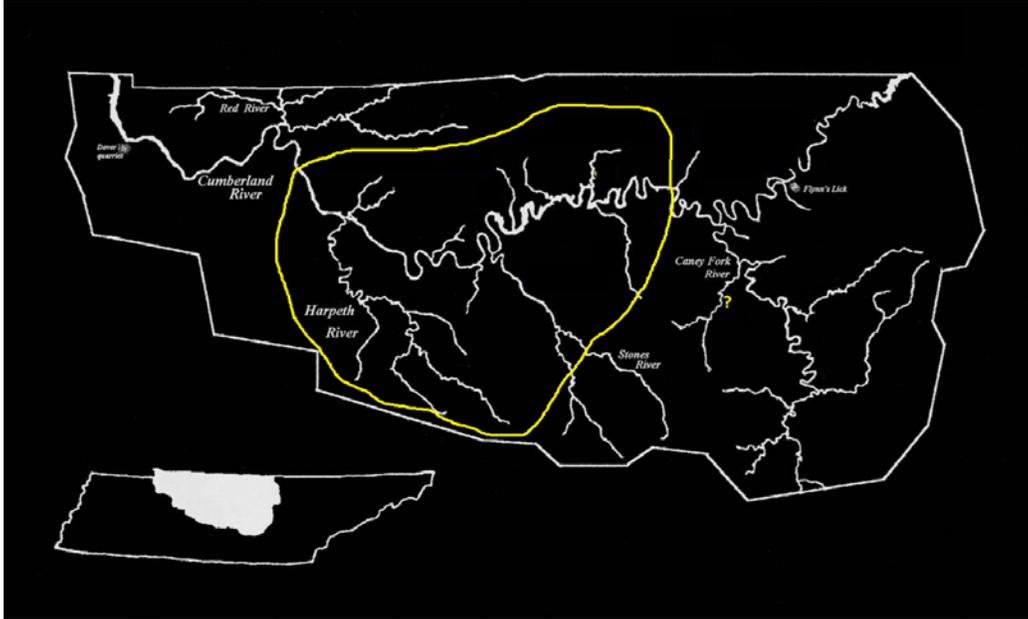


FIGURE 1. Preliminary revised boundaries for the Middle Cumberland Region (July 2018) shown in yellow. The “?” in yellow reflects uncertainties about several Mississippian mound sites on the upper reaches of the Caney Fork River.

another two decades as a convenient, albeit poorly defined, title for the late prehistoric cultures along the Cumberland River. Kevin E. Smith’s (1992:19) dissertation *The Middle Cumberland Region: Mississippian Archaeology in North Central Tennessee* included an effort to better define the chronology and geography of this same group of interacting peoples using the term “Middle Cumberland Region” and focusing more on ceramic traits than stone-box graves:

This study deals generally with that portion of the Cumberland River from the Caney Fork River on the east to Lake Barkley on the west, and specifically with the Cumberland River and its tributaries within the Central Basin of north-central Tennessee... a Mississippian-tradition culture which flourished from circa A.D. 900 to 1450.

Over the course of many years of research, the authors have continued to

refine the geographic and temporal extent of the groups of Mississippian peoples along the Cumberland River. Initially, the geographic extent of the “Middle Cumberland Region” (MCR) was reduced to the Cumberland River drainages between the confluence of the Caney Fork on the east and the Red River on the west (Smith and Moore 1996; Moore et al. 2006). The Dowd and Thruston “phases” originally proposed by Smith (1992) were changed to “regional periods” reflecting recognition that these terms were more appropriately perceived as broad regional patterns rather than the more tightly defined sense of “phases” (Moore et al. 2006:106):

Extensive research in the Middle Cumberland region over the past two decades [1986-2006] has led to a better understanding of the changing population dynamics during the Mississippian period.... During the Dowd regional period (A.D. 1050-1250), several chiefdoms

developed within the Middle Cumberland region, populations were dispersed into small farmsteads and hamlets oriented towards central towns with platform mounds... In the Thruston regional period (A.D. 1250-1450), populations congregated into larger villages and towns, and the construction and renovation of platform mounds declined. The larger, nucleated Thruston settlements often built substantial palisades (with bastions) around their perimeters. Populations appear stressed by environmental and social factors, and raiding activity seems to increase. After A.D. 1450, the inhabitants essentially abandon the middle Cumberland River Valley.

Although the late-nineteenth-century methods used by the Peabody Museum explorers along the Cumberland River from 1877 to 1884 limits their usefulness to some extent, the sheer quantity of highly diagnostic artifacts, broad geographic distribution, and preservation quality of the assemblage provided critical elements for continuing to refine the regional chronology (Moore and Smith 2009). In the concluding chapter of the Peabody Museum volume, the authors presented a provisional revised chronology and a series of propositions about selected diagnostic ceramic types (Moore and Smith 2009:202-210):

- Regional Period I – AD 1000 (?)–1100 (Early and Emergent Mississippian)
- Regional Period II – AD 1100–1200 (West-to-East Expansion and Mississippianization)
- Regional Period III – AD 1200–1325 (Proliferation of Chiefdoms)
- Regional Period IV – AD 1325–1425 (Region-Wide Decentralization)
- Regional Period V – AD 1425–1475 (Regional Abandonment)

Unfortunately, the majority of modern assemblages remain predominantly two-dimensional in nature. Whether modern “salvage” excavations (usually conducted

under the aegis of cemetery laws) or antiquarian “digs,” the majority of the assemblages lack stratigraphic depth and inadequate control over the relative ages of features and middens. As a result, the authors declined to assert control over more than broad regional patterns of chronology for diagnostic artifacts.

In sum, over two centuries of research has produced a relatively clear picture of the geographic extent of sites that can be assigned to Ferguson’s “Middle Cumberland Culture” – sites on the Cumberland River and its tributaries from below the mouth of the Caney Fork River on the east to just upriver of the confluence of the Red River on the west (Figure 1). Unfortunately, the nature of most of the Mississippian sites on the Caney Fork River remains largely uninvestigated past or present, although there are tantalizing hints that at least part of the upper Caney Fork River falls within the extent of Ferguson’s “Middle Cumberland Culture.” Chronologically, the early end of the chronological spectrum remains poorly understood, although Beahm’s dissertation (2013) provides some additional information. Ongoing research by Aaron Deter-Wolf and others (this volume) at Mound Bottom will undoubtedly shed additional light on early Mississippian occupations. The terminal range of occupation in the MCR has also been clarified in recent years, indicating that the terminus of archaeologically visible settlements is more accurately AD 1475 rather than the AD 1450 used for many decades (cf. Cobb et al. 2015; Krus and Cobb 2018). Having summarized “where we are” in terms of understanding the geography and chronology of the MCR, an examination of “how we arrived here” is warranted.

Early Explorers and the “Museum Expeditions”

Several factors brought early “scientists” to explore the mysteries of the Stone Grave People. First, they were relatively easy to find – the common use of iron rods as probes is well documented by the mid-19th century. While a skilled hand may readily detect the soft soil of unlined pits with such probes, the stone caps of the MCR required no such skill to detect. Secondly, the stone enclosures provided sturdy protection for both skeletal remains and mortuary accompaniments, enhancing potential preservation. Third, the increasing competition of national museums to have the largest, most comprehensive, and most representative collections increasingly led to expeditions from faraway places to Nashville and its environs.

While undoubtedly many early discoveries went undocumented throughout the early nineteenth century, antiquarians found the Stone Grave People easy pickings to establish collections for display in “cabinets of curiosities” and the earliest museums of the region. Among these early collectors was Ralph Eleaser Whiteside Earl (1788-1838). Despite a much broader corpus of works, Earl is best known today as the portrait painter and confidante of President Andrew Jackson. Although his contributions to the formation of the public image of Jackson are significant, they represent only one aspect of his multi-faceted efforts to develop cultured pursuits in Nashville (Stephens 2010; 2018). Among those efforts was establishment of the “Tennessee Museum” in 1818, certainly ranking among the earliest art and natural history museums in the interior south. In order to

build up the museum’s natural history collections, Earl embarked on some of the earliest well documented explorations of Mississippian sites in the Southeast. Over the course of two years (1820-1821), Earl explored at least three major mound sites of the Stone Grave People in Middle Tennessee, including the little known Ward Mounds, Charleville’s Mound at French Lick (40DV5), and the Castalian Springs Mounds (40SU14). For the latter he provides the earliest concise description of the stone graves – “On the outside of this intrenchment are a great number of graves. In several different places flat stones are set up edgewise enclosing skeletons, buried from 12 to 18 inches from the surface” (R.E.W. Earl to John Haywood, Letter written from Cragfont, 13 Oct 1821; Andrew Jackson Papers, MF 809, Box 4, Folder 19, Tennessee State Library and Archives). As a founding member of the Tennessee Antiquarian Society, Earl would also become the first of several antiquarians to leave a very important legacy for modern archaeologists – a detailed map of a Middle Cumberland Mississippian mound site showing significant details that were obscured by plowing and erosion before the early-20th-century arrival of people closer to what we might term true early archaeologists (Figure 2).²

The Tennessee Historical Society, successor to the short-lived Tennessee Antiquarian Society, was founded in 1849 for the specific purpose of collecting and preserving “relics” important to the history of the state and eventually to develop a museum for their exhibition. Members frequently donated “Indian relics” to the society’s collection, including many items from the multitudes of stone-box graves unearthed as the population expanded. However, the first major systematic exploration of the remains of the Stone

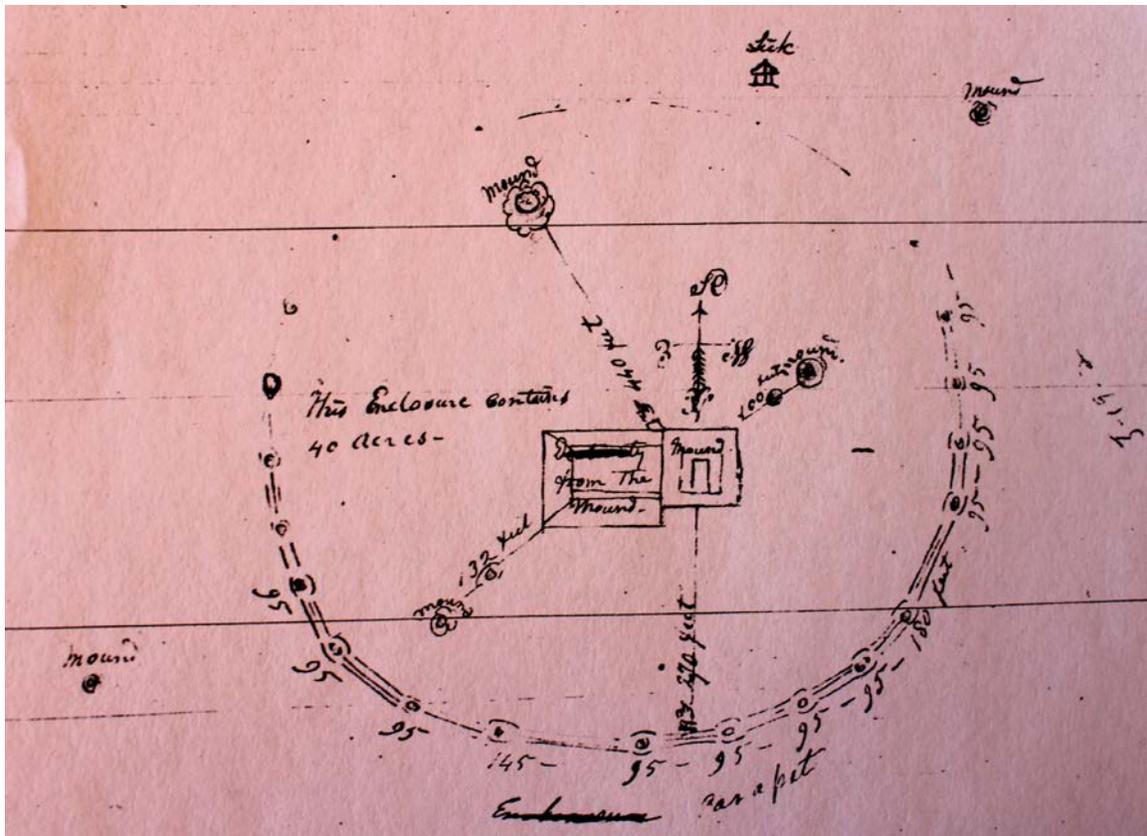


FIGURE 2. Plan view map of the Castalian Springs Mounds by Ralph E.W. Earl, October 1821 (MF809, Box 4, Folder 19, Tennessee State Library and Archives).

Grave People would be carried out by a brief migrant to the city, Dr. Joseph Jones (Figure 3). Although little known today, Jones was one of the nation's earliest significant clinical scientists – vigorously pursuing the true causes of malaria and typhoid fever throughout his career. Born in 1833, Jones spent much of his childhood in Liberty County, Georgia, where his parents owned three plantations. There he and his brother Charles Colcock Jones Jr. would also begin their interests in prehistory – both eventually amassing sizable personal collections. In 1866, after serving as a surgeon in the Confederate Army, Jones accepted a professorship in the Institute of Medicine at the University of Nashville and eventually was hired as the first City Health Officer in 1867. In 1868, he was enticed to accept the position of chair of

chemistry and clinical medicine in the Medical Department of the University of Louisiana (later Tulane University School of Medicine) and the position of visiting physician to the New Orleans Charity Hospital. Although only in Nashville for less than two years, we are fortunate that he turned his analytical interests to the “Stone Grave People.” Primarily interested in what the skeletal remains could reveal about the history of infectious disease in the New World, he explored many major mound centers throughout Middle Tennessee.

While he published two brief articles summarizing his discoveries (Jones 1869, 1873), his larger report *Explorations of the Aboriginal Remains of Tennessee* was commissioned in 1875 by the Smithsonian Institution. In anticipation of the United States Centennial, Joseph Henry



FIGURE 3. Joseph Jones, ca. 1880 (U.S. National Library of Medicine B015903).

contacted several Middle Tennessee explorers, including Jones, to contribute objects and information (particularly to refute the embarrassing tale circulating internationally about a primordial race of Tennessee Pigmies; see Smith 2013a). Jones (18756:158) noted that:

the mode of burial in stone coffins or cists, practiced so extensively by the aborigines of Tennessee, is remarkable, as differing from the methods employed by all the other Indian tribes of North America, of whom authentic records have been preserved.

Jones' broader contributions have recently begun to be critically examined.

He is now widely credited as one of the founding figures of American paleopathology:

his careful approach to diagnosing past diseases by reference to current medical knowledge provided a powerful model for the subsequent theoretical and methodological development of American paleopathology, as well as an informed examination of one of its enduring themes [the antiquity of syphilis]" (Powell 2003; see also Powell and Buikstra 2012).

His equally meticulous attention to recording his investigations of many mounds and cemeteries in Middle Tennessee has long been recognized by regional archaeologists. While certainly lacking the rigor of modern archaeology in the sense of excavation plans and stratigraphy, his attention to context and description allows the reconstruction of grave lots and the physical interrelationship of burials in many instances (Stoltman 1973:123-124; Williams 1986). His investigations spanned numerous of the most important mound sites along the Cumberland and its tributaries, including the East Nashville Mounds (40DV4; Walling et al. 2000), DeGraffenreid (40WM4; Smith 1994), West Harpeth (40WM406), and Old Town (40WM2; Smith 1993). Of particular significance are the detailed site maps produced for the latter three sites – two of which were subsequently entirely destroyed by early 20th century phosphate mining. His extensive personal collection of artifacts from the 1868-69 investigations was eventually purchased from his heirs by the Heye Museum of the American Indian in New York City and now comprises part of the collections of the Smithsonian's National Museum of the American Indian. Without his early research, publication, and artifacts, virtually nothing would ever be known

about the critically important DeGraffenreid site.

Another local explorer contacted by Joseph Henry in 1875 was Dr. William Martin Clark (1826-1895) of Franklin, Tennessee. He was charged with two tasks – 1) provide evidence to dispel the “Pygmy Race” stories; and 2) secure Middle Tennessee objects for the U.S. Centennial exposition. Although Joseph Jones provided the most compelling arguments for the National Museum, the editor of the *American Naturalist* published the following statement:

Mr. W.M. Clark, employed during the last year by the Smithsonian Institution, to investigate the [pygmy myth] has written for 1875 a long account of his labors, in which he distinctly proves that the little slab-graves are either those of children or are ossuaries... [and that] no pygmy race left their remains in this part of the country.³ (Anonymous 1876).

Although Clark would send over 200 objects from Williamson County, Tennessee sites to the National Museum, site provenience is not documented for the vast majority. In his manuscript, Clark does describe in detail several Middle Woodland objects obtained from the Glass Mounds (40WM3) but the only Mississippian objects described in enough detail are two marine shell scalloped triskelion gorgets from Old Town – although he mistakenly identified them as mammoth ivory disks (Figure 4). As a result, Clark’s legacy lies more in his Woodland mound discoveries than the “Stone Grave People.”

Joseph Jones’ two publications also served another broader purpose – drawing attention to the Nashville area sites on the part of national museums. According to Stephen Williams (1986), the *American Naturalist* article and “a number

of photos of his collection that Jones apparently sent in 1874 or '75 to Frederic Ward Putnam” probably stimulated the attention of Frederic Ward Putnam. That interest would generate the first long-term, large-scale, and well documented series of investigations at Middle Cumberland sites.

The selection of Nashville as the location of the 1877 meeting of the American Association for the Advancement of Science (AAAS) provided several national scholars with an opportunity to conduct some explorations – and make local contacts for future expeditions. Founded in 1848, the AAAS aspired to be a national organization, but held only one meeting in the South before the Civil War – Charleston in 1850. John Berrien Lindsley of the University of Nashville and a charter member of the AAAS worked diligently to make Nashville the location of the second meeting in the South. The association accepted his invitation for 1861, but was forced to postpone the meeting at the beginning of the Civil War. After meetings resumed in 1866, Lindsley returned to his pursuit of a Nashville meeting. Tennessee was finally selected again for 1877 – “Nashville in 1877 was home of six of the ten Fellows residing in the South, which doubtless increased its appeal as a meeting site. Moreover the upper South produced a number of nationally prominent scientists in this period” (Summerville 1986).

Among the excursions was a trip to the Zollicoffer site (40DV32) by Putnam, John Wesley Powell, Frank W. Clarke, Horatio N. Rust, R.S. Robertson, and probably Ed Curtiss. This was not Powell’s first visit to the stone-box graves of Nashville – during the Civil War, he was transferred to Nashville in 1864 to protect the city with 16 batteries of artillery. Years later, he recounted digging a prehistoric Indian



FIGURE 4. Marine shell triskele gorgets recovered by Dr. W.M. Clark at Old Town (National Museum of Natural History A19975-0 and A19976-0; Photographs by Kevin E. Smith).

mound with stone-lined graves during that time – probably Charleville’s Mound at the French Lick site, previously investigated by R.E.W. Earl. Following the conclusion of the AAAS meeting, several of these men, including Putnam, Powell, and Curtiss would remain for several additional weeks investigating mounds and graves. Powell, along with T.O. Summers Jr. of the Vanderbilt University Medical School, would investigate a series of mortuary mounds at the Bowling/Bosley site (40DV426; Smith 2014). At the same site, Putnam and his new employee Ed Curtiss, conducted their own examinations of additional mortuary mounds. Over the next month, Putnam and Curtiss would examine at least six additional Mississippian sites in Davidson and Wilson counties (Moore and Smith 2009:13-68; Putnam 1878b). Putnam expressed his gratitude in the proceedings of the AAAS:

I cannot close this incomplete sketch of the very successful meeting at Nashville without a word of personal thanks for the many courtesies extended to me in furtherance of my own particular research

in the prehistoric remains of this important region so interesting to the student of American Archaeology. Remaining in the state as I did for nearly a month after the adjournment of the meeting, and receiving such cordial support in my work, I was enabled to make many observations and extensive collections (Putnam 1878a).

Curtiss was retained by Putnam to continue explorations for the Peabody Museum until his death in 1880, and would explore nineteen additional Mississippian sites (Moore and Smith 2009). Curtiss would also employ the brothers George and Joe Woods, the earliest known African-American archaeological field technicians in Tennessee (Moore et al. 2010; Figure 5). After Curtiss’ death, Woods would continue working for Putnam for several years – culminating with Putnam’s return to Nashville in 1882 to excavate at the Jarman Farm site (40WM210; Moore 2005; Moore and Smith 2009).

After nearly a decade of explorations sponsored by the Peabody Museum, interest in the Stone Grave People would revert to the attention of local

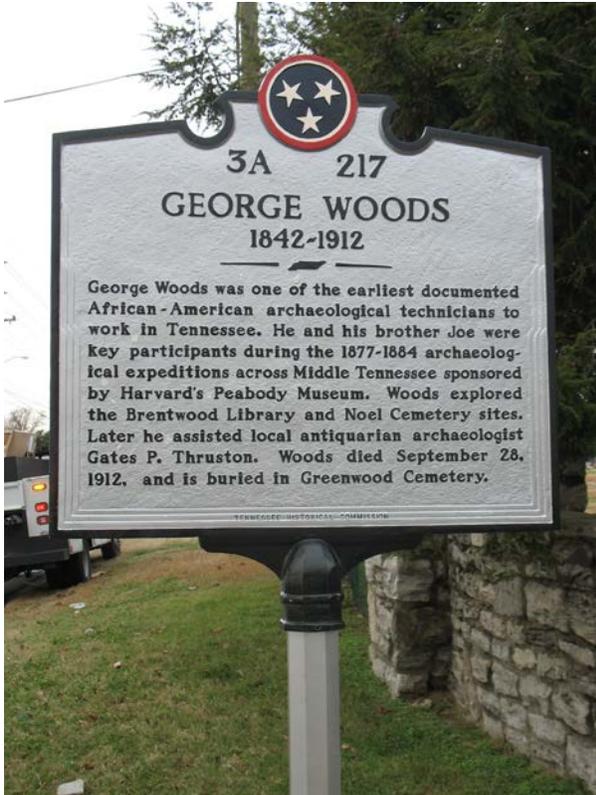


FIGURE 5. George Woods historical marker erected near his grave at Greenwood Cemetery, Nashville.

antiquarians, including most notably Gates P. Thruston. Although a fellow of the AAAS, Thruston did not attend the Nashville meeting as he was traveling abroad in Europe with his family. In 1890, Gates Phillip Thruston published the first edition of his thoroughly illustrated *Antiquities of Tennessee*, followed in 1897 by a modestly expanded second edition. It seems safe to say that no other publication of any kind on Mississippian artifacts from the Cumberland River valley – before or since – has been cited as extensively or reprinted as often. As a result, the influence of this volume on perceptions of Middle Cumberland Mississippian culture has been widespread and long-lasting. The eventual donation of Thruston's personal collection to Vanderbilt University in 1908 preserved this collection largely intact.



FIGURE 6. Gates P. Thruston, ca. 1875 (Tennessee State Library and Archives).

Many decades later, the collection was placed in trust at the Tennessee State Museum, where it served as the centerpiece of the museum's permanent exhibit on the "First Tennesseans" since the early 1980s.

Thruston (1835-1912; Figure 6) developed his interests in Native American antiquities during his boyhood in Dayton, Ohio. After the Civil War, he remained in Nashville to practice law and eventually served as president of the State Insurance Company. During that time, he also became an active and enthusiastic collector of antiquities – most of them from sites of what he would term the "Stone Grave Culture." Thruston did not apparently do much digging on his own account, but rather paid a series of workers to explore the graves on his

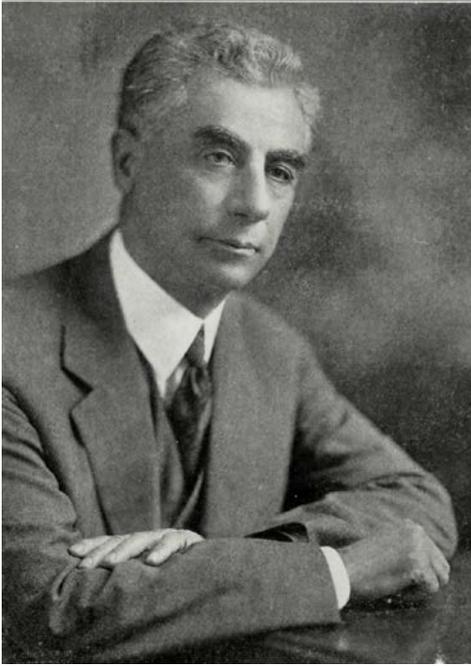


FIGURE 7. William Edward Myer, ca. 1920
(*Tennessee Historical Magazine* VIII(4):224)

behalf (including George Woods) and purchased collections from others as well. Although the cluster of cemeteries known today as the “Noel Cemeteries” (40DV3; Smith et al. 2009) was recognized as a “productive” area by the late 1860s and early 1870s, construction of a light rail line from downtown Nashville to Woodstock/Glendale Park (Nashville’s first amusement park) in 1886 struck a large and previously unknown stone-box cemetery. Five young men – members of the small collecting club known as the Nashville Philatelic Society – enthusiastically explored the cemetery: Frank Cheatham, W.W. Dosier, Otto Giers, George T. Halley, and E.C. Wells. Part or all of at least three of their collections have been located.⁴

Inspired at least to some extent by Thruston, William Edward Myer (1862-1923; Figure 7) began his collecting career at the age of 8 with a gift of two “relics” from his mother Helen. After working on Woodland mounds in Ohio

with Warren K. Moorehead in 1890, Myer embarked on his first major personal excavation at the Castalian Springs Mounds in summer 1891. Daunted by the scale of the larger mounds at the site, he initially focused on a small eight-foot-high dome-shaped mound at the southeast corner of the plaza. That relatively unimpressive mound yielded what are now some of the most iconic of Tennessee artifacts – including an astounding array of marine shell gorgets exemplary of almost every major theme present from A.D. 1250 to 1350.

While Myer is best described as a collector and antiquarian during his early career, by 1915 his interests shifted to professionalizing his role as a significant early 20th-century archaeologist. Initially funded in part by the R.S. Peabody Museum and his old acquaintance Warren K. Moorehead, his explorations along the Cumberland River were increasingly focused on answering questions about the functions, uses, and meanings of artifacts – and more importantly the people who made them. Dissatisfied with Moorehead’s limited interest in interpretation, Myer increasingly affiliated himself with the Bureau of American Ethnology and Jesse Walter Fewkes – who would eventually appoint him as a Special Archaeologist. Over the course of his avocational and professional career, Myer documented and/or excavated at almost all of the best-known Middle Cumberland Mississippian sites – including most notably his 1920 work at Gordontown and Fewkes (Myer 1928). Myer’s death in 1923 left most of his major works unpublished, but thousands of pages of notes, photographs, maps, and other documents remain preserved at the National Anthropological Archives. His personal artifact collection was dispersed by his heirs after his death, but a

significant core of the collection is curated by the National Museum of the American Indian. The artifacts procured during his tenure as BAE Special Archaeologist are curated by the National Museum of Natural History. Myer's interests were not limited to Tennessee – he visited Cahokia several times between 1920 and 1923, where he excavated with Moorehead in the Ramey Tract. In addition, he traveled to Spiro, Oklahoma, in 1920, intrigued by the first photographs of the site published by Joseph B. Thoburn in his *Standard History of Oklahoma* (1916:8).

Myer's increasing concern with the rapid pace of destruction of these sites along the Cumberland River led him to pursue two major initiatives: 1) creation of a Tennessee Department of Archaeology; and 2) designation of several major mounds as National Monuments. By 1920, when the Committee on State Archaeological Surveys was created as part of the National Research Council initiative to professionalize archaeology in the United States, Myer became the Tennessee correspondent. Sometime between 1921 and 1922, Myer distributed an "Outline of Bill for establishment of Department of Archaeology, State of Tennessee" (W.E. Myer to John H. DeWitt, P.E. Cox Papers, Box 2, Folder 10, Tennessee State Library and Archives).

Outline of Bill for establishment of Department of Archaeology. State of Tennessee.

To be free from political control...

To be entirely separate from any other department

The state archaeologist to be a trained archaeologist. He need not necessarily be a citizen of Tennessee at time of his selection.

The state archaeologist to be selected by a nonpartisan board consisting of the

governor of Tennessee, the state librarian of Tennessee, the presidents of Vanderbilt Univ, Peabody College, Ward-Belmont, Univ of Tennessee, univ. of Chattanooga, the new university at Memphis (I think it is the college formerly located at Jackson and removed to Memphis and given a large endowment) and president of the Tennessee historical society.

Duties of state archaeologist: to look after the preservation of the vast and fast disappearing archaeological remains in Tennessee; to carefully explore them; to gather all the relics of primitive man in Tennessee as far as may be possible into a great museum at the capital of the state where they may be freely seen and studied; to encourage our citizens to guard and to take fresh pride in these great remains; to endeavor to reveal the history of the unknown and long vanished peoples who loved lived in Tennessee; to restore, if practicable, some of these ancient sites to their original appearance when those peoples lived thereon.

The state archaeologist to hold his office for eight years and to receive same salary as state geologist now receives.

State archaeologist to have one assistant and one stenographer, to be appointed by him. This assistant to receive 200.00 per month, the stenographer 125.00 per month.

The department of archaeology to have a fund of the same amount as that set apart for the state geological department (I think it is about 25000.00). This fund to be used in field explorations, traveling expenses, when on duty connected with the department, purchase of relics, cabinets, booths, and other supplies, publishing, and such other expenses as the needs of the department may require.

Those efforts were unsuccessful, and although P.E. Cox would continue his efforts, it would be another five decades before the “Tennessee Division of Archaeology” was created.

At the same time, Myer was pursuing efforts to persuade Jesse Walter Fewkes to present several mound sites to the federal legislature for acquisition as national parks or designation as national monuments (Smith 2008a):

Mr. Myer...recommends that the Federal government make the necessary appropriations for preserving these ancient ruins in Tennessee by converting their locations into small national parks. Some of these ruins are of world-wide interest, particularly the old stone fort near Manchester. Mr. Fewkes favors this idea and comes here to see them for himself in order that he be able from first hand information to add the endorsement of his bureau on the proposed plan” (Ancient Ruins of Tennessee, Scientists Fewkes Comes here to Investigate Some of the Them, Will Visit Stone Fort, Federal Government Will be Asked to Convert Locations into National Parks for their Protections, Nashville Banner, 2 May 1920, pg. 1).

The establishment of a Federal park in Tennessee to include the remains of ancient Indian villages, mounds, etc., is proposed, and may result from an appeal to be made to Congress following the visit to Nashville of Dr. Jesse Walter Fewkes, chief of the Bureau of American Ethnology, during the coming week. The site of the proposed park to be recommended will probably be the Gordon farm, near Brentwood. (Mound Expert’s Visit may bring U.S. Park here, Nashville Tennessean, 2 May 1920, pg. 1).

Although Fewkes’ visit to Middle Tennessee did not result in the creation of federal parks or monuments at any of the

sites visited, he was sufficiently impressed to fund Myer’s work over the following three years at five of the mound sites they visited.

During the last few years of Myer’s career (and life), another significant player in Middle Cumberland archaeology emerged – Parmenio Edward Cox. Not really an antiquarian or an archaeologist, Cox’s interests stemmed in large part from his goals of creating a state museum and archives. His emphatic emphasis on material culture at the expense of archaeology led to a few clashes with Ed Myer just prior to his death (Smith 2013b). After Myer’s death, Cox attempted to step into his vacated position working with the National Research Council and the Bureau of American Ethnology. Although unsuccessful in continuing attempts to create a Department of Archaeology within state government, Cox was able to secure a largely titular appointment by Governor Austin Peay as Tennessee’s first official State Archaeologist and a more substantive role as Keeper of the State Museum and Archives. Using those titles, he launched a short-lived Tennessee Archaeological Society (Smith 2008b; Figure 8):

P.E. Cox... was recently appointed state archaeologist by Gov. Peay, and he is actively preparing for the organization of a state archaeological society... (Franklin Man Named Archaeologist for State, Writes of Prehistoric Man, Archaeological Society Will Be Organized in Nashville Nov. 17; to study Work of the Ancients, Nashville Tennessean 31 Aug 1924, pg. 3)

Cox’s legacy is mixed – he left little in the ways of notes or objects that can be fruitfully reexamined today from his personal “digs.” However, his efforts to establish a more central place for archaeology throughout Tennessee

should not be overlooked. Overshadowed to that point as an ancillary objective of the Tennessee Historical Society, the creation of a separate Tennessee Archaeological Society and the appointment of numerous “assistant State Archaeologists” in various counties, while short-lived, must be deemed influential in setting the stage for the more organized and successful efforts of the 1930s and 1940s.

The late 1920s and early 1930s also witnessed the beginning of a new era of extensive relic collecting in Nashville. With the growth of Nashville as a major city, rampant construction exposed increasing numbers of stone-box cemeteries – both large and small – with limited legal protection. For the most part, in the absence of professional archaeologists in the mid-state area, these discoveries became the venue of hobbyist collectors from many walks of life. Although there are many more collectors than can be mentioned here, a few examples will suffice to illustrate the escalating pace of destruction. Although frequently referred to as “archaeologists” by reporters, we note that most of these individuals did not refer to themselves as professional archaeologists – but rather as experienced hobbyists or “avocational archaeologists.”

Since some of the following examples focus largely on finding and “digging” of stone-box graves, a brief notation about the current legality of these kinds of activities is warranted as an introduction. Legal protection was extended in 1984 to all human burials on government and private lands in the State of Tennessee – regardless of age or cultural affiliation. From that point forward, “digging” of stone-box graves by anyone without a chancery court order became a Class E felony (Moore 1989, 1998). In 1990,



FIGURE 8. P.E. Cox (left) and Charles K. Peabody (assistant state archaeologist for Chattanooga) at Mound Bottom, 4 April 1926 (RG 122, Tennessee State Library and Archives).

passage of the Native American Graves Protection and Repatriation Act (NAGPRA) created even more substantial protections for stone-box graves on federal lands. The Tennessee legislature would clarify the ownership of burial objects from stone-box graves in 1999 with an amendment requiring that “any cultural material, including but not limited to, whole or broken ceramic, metal, or glass vessels, chipped stone tools, groundstone tools, worked bone and shell objects, clothing, medals, buttons, rings,



FIGURE 9. “A Dr. Young Field Party” (Young 1949a).

jewelry, firearms, edged weapons, and the casket and parts thereof, that were demonstrably buried with an individual” be reinterred with the associated skeletal remains (*Tennessee Codes Annotated* 11-6-102). Leaving aside the more sensitive and debatable issues of morality and the ethics of disturbing human burials, many of the activities described below would be felonies were they conducted today. These state and federal laws also mandated the incorporation of modern Native American voices into the legal process to varying degrees. Although the resulting discussions have not always been amicable, they have, in the opinion of the authors, always been thought-provoking. Now to turn back to consideration of the earlier decades of the twentieth century.

Dr. Thomas Hugh Young (1891-1962) was an avocational archaeologist and major collector of prehistoric artifacts in Middle Tennessee during the early-mid twentieth century. Born in 1891, his interests in collecting artifacts apparently began around 1910 with Civil War “minie

balls” in his childhood Nashville neighborhood. He graduated from Vanderbilt University in 1913, received a pharmaceutical degree in 1914, and then graduated from the medical school in 1915. His collection eventually became one of the largest in the southeastern United States – a large number acquired through his personally sponsored digs in Middle Tennessee, but hundreds of thousands of others acquired through the purchase of other major collections beginning in the 1950s.

Young’s primary occupation was as a medical doctor, performing medical examinations for Life & Casualty Insurance in Nashville, until an automobile accident about 1955 forced him to retire from his practice. He then built a new home and archaeological museum at the corner of Battery Lane and Franklin Road. About 2000 of the “finest” pieces in his collection were purchased prior to his death by Thomas Gilcrease for the Gilcrease Museum in Tulsa, Oklahoma, where they remain curated. Dr. Young died 27 May 1962 in Nashville, and the

remainder of his collection was sold privately to a variety of collectors – and is now widely dispersed in private and museum collections throughout the United States.

Dr. Young's excavations focused primarily on the graves at local Mississippian sites, with occasional forays into rockshelters and overhangs. Unfortunately, he left few published works on his digs and, although there are clues that he kept fairly meticulous records, the whereabouts of those records (if they survive) are currently unknown: "to make an accurate record of a Mound it is well to stake off, North and South, and bisect this with a line, East and West. Then measuring five feet in each direction from these lines with stakes, we have five foot squares and if we choose to keep a record, have each grave located according to scale" (Young 1949a:8-9). Further, he writes: "I have opened many Mounds, bench burials, cliff burials, and have records in my files of varied experiences, and it would be difficult to say which afforded the most thrills" (Young 1949). Dr. Young employed a crew of three young African American "lads" for many years, one of whom – Charley Hardeman – excavated stone graves with him for 20 years (Smith et al. 2011, 2014).

The "field party" illustrated (Figure 9) is probably at one of his largest scale excavations about 1934 – a previously undisturbed stone-box burial mound in Robertson County, Tennessee: "by the use of long steel probing rods we outlined the area, about 35 to 50 feet in diameter and from three to four feet deep. We sounded the stone graves. None had been disturbed. It was virgin territory" (Young 1949a:8). From that mound, he mentions excavating over 100 stone graves, and discovering about 25 "perfect

shell gorgets," many shell beads, Dover swords, maces, and "hooks" (talon knives), and pottery. Unfortunately, the loss of his notes, photographs, and the absence of detailed labels on surviving artifacts make it difficult to reconstruct the assemblage from the site.

As depicted in 1945, "History comes out of the earth by the spadeful for Dr. T. Hugh Young, Nashville physician whose hobby of digging up Indian relics has opened a thousand-year vista into Nashville's past. 'It's still the thrill of a lifetime to find a fine Indian relic – and I have found thousands of them,' Dr. Young says" ("By the Spadeful, History comes out of the earth in Dr. T. Hugh Young's hobby," *Nashville Tennessean* 9 Sep 1945). Another significant stone-box cemetery containing an estimated fourteen graves investigated by Dr. Young in 1947 was discovered during construction of the second nine holes of the McCabe Park golf course. Young and Dr. George R. Mayfield, retired Vanderbilt University professor, dug the first grave of "an Indian girl, estimated to be about 17 years old, covered by a stone slab similar to those used for the sides of the graves..." ("Archeologists Plan to Dig in McCabe Indian Graves," *Nashville Tennessean* 21 Sep 1947, pg. 10). Dr. Young had planned to bring in close friend Raymond Vietzen from Ohio, along with local collectors Henry H. Hassler and Guy Stack. This particular episode led to a conflict between Nashville city government and Dr. Young ("Indian Relics Seized, Finders Halt Search", *Nashville Tennessean*, 24 Sep 1947, pg. 6). Ultimately, "the board [of city parks commissioners]... decided that excavation of recently-discovered Indian graves in the new McCabe park golf course will be under the direction of Will G. Hassler, curator of the Nashville Children's

Museum, and relics found in the graves will become part of the museum's collections" (*Nashville Tennessean*, 26 Sep 1947, pg. 4). Although they allowed Dr. Young and his associates to complete the excavations, they retained ownership of the skeletons and objects on behalf of the citizens of Nashville (Figure 10).

Because of the dispersal of his collection and loss of his notes, the lasting contributions of Dr. Young to our understanding of the Middle Cumberland Region remain mixed – some of the objects recovered during his decades of grave-digging provide information about sites that were subsequently largely or entirely destroyed. In hindsight it is easy to say that the graves and associated archaeological sites should have been preserved – but they weren't. That fact remains as a darker side of the legacy of Nashville's success as a modern city built atop – and often at the expense of -- literally hundreds of the settlements of a more ancient indigenous culture. Upon his death, Dr. Young was buried in Mount Olivet Cemetery (Section 25, Lot 100). His tombstone reads: T HUGH YOUNG 1891-1962 ARCHEOLOGY.

Guy Stack, mentioned previously as an associate of Dr. Young, was one of the other prominent Middle Tennessee collectors of the mid-20th century. Born in Montgomery County on 29 September 1899, the family moved to Cheatham County in 1913. After attending an auto college in Nashville, he opened an auto repair business in Cheatham County where he and wife Chloe Reed lived until 1927. They then opened a garage at 38th and Charlotte in Nashville, which they ran until his death on 24 December 1963. Stack was an avid hunter and fisherman and one day (sometime in the 1920s), as he walked across newly plowed fields in Cheatham County, he noticed the



FIGURE 10. Nashville Scalloped Triskele gorget formerly in the Nashville Children's Museum.

scattered remnants of a shell bead necklace. That find sparked what would become a serious hobby for the remainder of his life. Two sites he spent a great deal of time "working" were the large Sycamore Creek village and the Doddsville site below Cheatham Dam (Brehm 1990:3-4). H.E. Parmer wrote that "Stack has great respect for the dead of our prehistoric people and rarely removed any of their bones... when working out a shallow stone box grave he was known to have dug the grave much deeper and to have placed the stones and human bones well below the plow line" (Brehm 1990:4). After creation of the second Tennessee Archaeological Society in 1944, Stack would frequently publish the results of his discoveries in the journal *Tennessee Archaeologist* and its newsletter.

While on vacation, Stack also explored sites far from Nashville, including Spiro Mounds in Oklahoma in the 1930s when it was being actively looted. According to Brehm (1990:34), Stack was walking around the site with John Hobbs (of the infamous Pocola Mining Company) when he noticed several engraved shell gorgets



FIGURE 11. The three unique “cradleboard” figurines from Davidson County, Tennessee. Left: Gates P. Thruston Collection of Vanderbilt University; Center: formerly Thomas Hugh Young collection (purchased from Richmond P. Blackmer); Right: fragment found by Guy Stack (current whereabouts unknown).

caked with dirt in a small pile. When he inquired as to their price, Hobbs indicated they were all cracked or broken and he was giving them away as free souvenirs. Stack took two. About two months after Stack’s death, Mrs. Stack asked Lawrence Russell, Buddy Brehm, and H.E. Parmer to inventory and photograph the collection. While over 220 photographs were completed in five sessions, Mrs. Stack sold several of the “finer pieces” before they finished – leaving a spectacular but incomplete record of the collection, which is now widely dispersed in private collections throughout the United States (Brehm 1990; Parmer and Brehm 1964). Figure 11 illustrates the only three currently known “cradleboard” figurines from Davidson County, Tennessee -- all

originally found by Nashville collectors during the late nineteenth and early twentieth centuries.

The Second Tennessee Archaeological Society

Although the first massive archaeology projects in Tennessee began with the federal relief programs of the Great Depression, these were largely conducted in the Tennessee River Valley and the only substantial (but relatively small) project completed in the MCR was at the Mound Bottom and Pack sites in Cheatham County (Dye 2016; Moore et al. 2016; Worne et al. 2016; Worne et al., this volume). One legacy of the New Deal Projects, however, was the formal creation of a second Tennessee

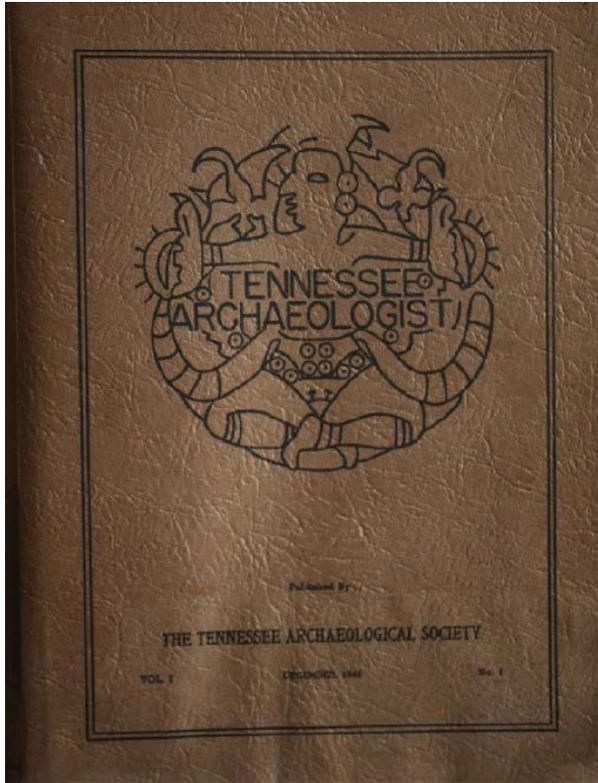


FIGURE 12. Cover of the *Tennessee Archaeologist* Volume 1, Number 1, 1944.

Archaeological Society [TAS] in 1944 by T.M.N. Lewis at the University of Tennessee (Smith 2016).

As noted by Smith (2016:192), “the primary function served by the [TAS] was facilitating communication between the small local groups of avid collectors and professional archaeologists... For four decades, the TAS sought to bring together individuals with very different interests in the state’s archaeological heritage.... Active members were frequently prominent in their local communities, including many doctors, lawyers, and other professionals.” Probably the most significant contribution of the TAS for Mississippian culture of the MCR was the provision of a publication outlet for local avocational archaeologists – the journal *Tennessee Archaeologist* (1944-1981) and *Tennessee Archaeological Society Newsletter* (1956-

1984) published almost 5,000 pages, including many photos, reports, and articles about Mississippian artifacts and sites along the Cumberland River (Figure 12). As noted by Smith (2016:191), “of significance is the formal documentation of objects recovered by nonprofessionals, many of which are still extant in private collections or have subsequently ended up in museums.” Young, Stack, and other local avocational archaeologists were active in the statewide organization – and hosted six annual meetings in Middle Tennessee (two each at Nashville, Murfreesboro, and Tullahoma). For better or worse, the Nashville Chapter was never particularly large and, unlike other chapters throughout the state, did not seem to sponsor organized large scale “digs” at MCR sites. The continuity between the first and second Tennessee Archaeological societies is most notable in East Tennessee. Charles K. Peacock of Chattanooga (Figure 9), a member of the first society, went on to co-found the East Tennessee Archaeological Society in 1929, which later helped to organize the second TAS.

As noted by John Dowd for his 1960s experiences in the MCR (Dowd and Smith 2008:5-6), the:

stone box burial sites in Middle Tennessee were left to the amateurs, pothunters, and bulldozers. At this point there were no state archaeology laws, no state archaeologist, and no National Historic Preservation Act... The times were ripe for development of a group such as the SIAS [Southeastern Indian Antiquities Survey].

The Southeastern Indian Antiquities Survey and Middle Cumberland Archaeological Society

Although not officially chartered until 1967, the people who would become



FIGURE 13. H.C. “Buddy” Brehm at the “Indian Museum” created by the SIAS at Travellers Rest, 1964.



FIGURE 14. Figurine from the West Site on display at the McClung Museum (Kevin E. Smith).

members of the Southeastern Indian Antiquities Survey (SIAS) started working



FIGURE 15. Part of the Mississippian figurine cache from structure floor at the Brick Church Pike Mounds (John T. Dowd).

together about 1963 to salvage information from the many archaeological sites that were being destroyed by urban expansion in and around Nashville.

RCA record producer Bob Ferguson masterminded the SIAS – eventually establishing the goals of purchasing Mound Bottom and building a Native American cultural center at the site. Ferguson’s second wife was a member of the Mississippi Band of the Choctaw Indians, and the SIAS was closely affiliated with that federally recognized tribe for a decade – even serving as publisher of the *Chahta anumpa* (Choctaw Times) newspaper from 1968-1971.

As fundraising for the purchase of Mound Bottom proceeded, SIAS members would work to salvage information from sites threatened by development. Among the Mississippian sites where significant salvage work was done either independently by the SIAS/MCAS or by SIAS/MCAS volunteers working with professional archaeologists, were Travellers Rest (40DV11; Dowd 1975; Miller 1987; Figure 13), Sandbar Village (40DV36; Dowd and Broster 1972; Smith and Moore 2012), the West site (40DV12; Dowd 1972; Figure 14), the Brick Church Pike Mounds (40DV39; Barker and Kuttruff 2010; Dowd 1974;

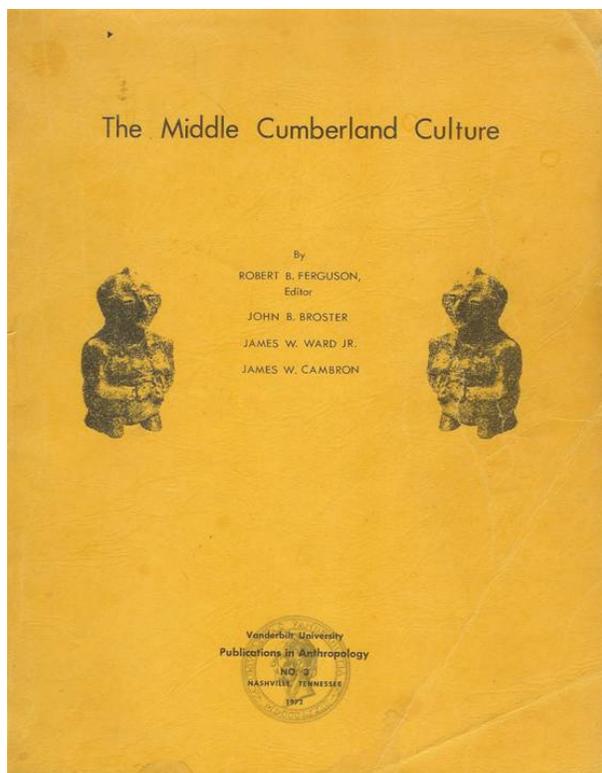


FIGURE 16. Cover for the *The Middle Cumberland Culture*, Vanderbilt University Publications in Anthropology No. 2. Nashville.

Figure 15); Gordontown (40DV6); Cardwell Mound (40WR15), Brandywine Pointe (40DV247); Rutherford-Kizer (40SU15); and the Brentwood Library (40WM210). The list also includes salvage excavations at Ganier and Arnold – the two sites that produced the eponymous label “Middle Cumberland Culture” (Ferguson 1972; Figure 16). Another major project facilitated by MCAS volunteers was the inventory and transfer of the Thruston Collection from Vanderbilt University to the Tennessee State Museum. As summarized by Dowd (Dowd and Smith 2008:1):

The membership has always included folks from all walks of life: professional and amateur archaeologists, blue and white collar workers, housewives, students, and anyone else interested in history and



FIGURE 17. Ad Hoc Committee drafting the Tennessee archaeology legislation, February 1969. Bob Ferguson (SIAS) seated at left (Mack Prichard).

prehistory... SIAS members performed many excavations (mostly salvage projects) during the 1960's and 70's. They were also instrumental in supporting the passage of antiquities laws... the SIAS aided in the creation of an official state Division of Archaeology and appointment of the first official State Archaeologist since the 1930s. Since the creation of the Division of Archaeology in the early 1970s, the SIAS [and its successor the Middle Cumberland Archaeological Society] ... has furnished volunteer workers on many state archaeology projects, both in the field and in the lab (Dowd and Smith 2008:1).

The passage of the National Historic Preservation Act of 1966, with its inclusion of archaeology as a potential criterion for listing in the National Register of Historic Places, prompted the creation or expansion of many state archaeology programs. In Tennessee, the end result in 1970 was the passage of the Tennessee Archaeology Statutes, in part creating the Tennessee Division of Archaeology and finally fulfilling the efforts started by Myer and Cox in the 1920s (Figure 17). Officially backed by both the SIAS and the TAS, the first Tennessee Archaeological Advisory Council appointed by the



FIGURE 18. The first Tennessee Archaeological Advisory Council 1972. Left to right: Travis Binion (TAS), Bob Ferguson (SIAS), Charles McNutt (Memphis State University), Ron Spores (Vanderbilt University), and Alfred K. Guthe (McClung Museum) (*Mack Prichard*)

Governor included representatives of both (Bob Ferguson and Travis Binion; Figure 18). That first council also served as the search committee for the first state archaeologist of the modern era – eventually resulting in the appointment in 1972 of Mack Prichard, then president of the SIAS and a former officer of the TAS as well.

When Prichard took office, three major state archaeological parks were already in place at Chucalissa, Pinson Mounds, and Old Stone Fort. Prichard embarked on an ambitious campaign to expand that number across the state. Although not every site on his original list was saved, two Middle Cumberland Mississippian sites were acquired, including the critical Mound Bottom site and Sellars Mound (the source of four of the most famous Tennessee-Cumberland stone statuary) and the closely related Link Farm Mounds in Humphreys County.

The creation of the state agency, the purchase of Mound Bottom, and the departure of Bob Ferguson for the



FIGURE 19. John T. Dowd (right) receiving the Crabtree Award at the 2012 Society for American Archaeology conference (*Kevin E. Smith*).

Choctaw reservation led to a lull in SIAS activity in the early 1970s. Long time members H.C. “Buddy” Brehm and John T. Dowd would step into that void and along with others rejuvenate the organization. Although the MCAS and many of its members have earned recognition through preservation awards by the Tennessee Historical Commission and Tennessee Council for Professional Archaeology, undoubtedly the most substantive recognition was that eventually received by John T. Dowd when the Society for American Archaeology presented him with the national Crabtree Award (Smith and Moore 2013a, 2013b; Figure 19).

Tennessee Division of Archaeology

Although the authors played a significant personal role as employees of the Tennessee Division of Archaeology,

few would contradict the assertion that the agency has played a critical role in preservation efforts for Mississippian sites in the greater Nashville metropolitan area, albeit not always particularly successful. The first three regional archaeologists hired by Prichard included John B. Broster (a founder of the SIAS), Carl Kuttruff, and Brian Butler. Kuttruff, working with Michael O'Brien and Vanderbilt University, would undertake the first modern excavations at Mound Bottom (O'Brien and Kuttruff 2012) and Butler would tackle gathering interpretive information for Sellars Mound (Butler 1981).

Sometimes fortuitous coincidence can have lasting ramifications. The simple fact that Kevin E. Smith started working with Carl Kuttruff and the TDOA in 1985 on Mound Bottom ceramics and other collections as part of dissertation research and that Michael C. Moore – with strong interests in lithics -- was hired as an employee of the TDOA in 1986 had lasting impacts on the future of Middle Cumberland Mississippian for over three decades – whether overwhelmingly positive or negative, we leave to the opinion of the readers. The building boom of the late 1980s and early 1990s in Nashville quickly overtook several major Middle Cumberland mound centers – sites unprotected by state or federal laws and whose destruction was hampered only minimally by the Tennessee Cemetery statutes. With the approval of state archaeologist Nick Fielder, the authors embarked on a seemingly never-ending series of salvage projects – working with developers to arrange for salvage of as much information as possible within tight time constraints. As noted by Smith and Moore (2013b:20), “when we began our professional careers in Tennessee archaeology in the mid-1980s, the most common answer to any of our questions

about major archaeological sites in the mid-state region was something to this effect: ‘You should ask John Dowd. He probably knows more about that site than anybody else.’ That relationship also led to a strong and lasting partnership with the Middle Cumberland Archaeological Society – whose members provided volunteer hours numbering literally in the tens of thousands.

Eventually that partnership would be semi-formalized as the “Middle Cumberland Mississippian Survey Project” (MCMSP). Initially started as an outgrowth of Smith’s dissertation research (Smith 1992), the Middle Cumberland Mississippian Survey Project (MCMSP) was first a collaborative project of the Tennessee Division of Archaeology and the Middle Cumberland Archaeological Society (and eventually the new archaeology program at Middle Tennessee State University in 1995). Led by the authors, numerous large-scale salvage projects were conducted beginning in the early 1990s and continuing through today focused on salvaging information from the multitude of Middle Cumberland Mississippian villages and centers threatened by the renewed suburban expansion of greater Nashville. Initially largely supported by volunteer labor provided by the Middle Cumberland Archaeological Society, students and faculty in the newly established anthropology program at Middle Tennessee State University would eventually also play a significant role and on-going role. Smith and Dowd (2008:89) described the partnership of the Middle Cumberland Archaeological Society with the TDOA and eventually Middle Tennessee State University:

Just as when [the MCAS] started, our members come from all walks of life – professional archaeologists, avocational

archaeologists, students, lawyers, doctors, Native Americans, and both blue and white collar workers.... For the long term, the importance of the MCAS lies in its reputation for integrity. We have managed to save a tremendous amount of information about the past of Tennessee that would otherwise have been lost.

A primary goal of these partnership projects was salvage and dissemination of primary data about the multitude of largely unknown Middle Cumberland Mississippian sites that were being destroyed at a rapid pace. Time to sit down and think about the Big Picture was not a luxury available during that construction boom. However, background research on the Rutherford-Kizer Mounds led the authors to “re-discover” the almost forgotten Peabody Museum expeditions in Middle Tennessee from 1887-1884 and a publication that serves as one of the highlights of both careers (Moore and Smith 2009). That project brought into focus the vast number of virtually unstudied Middle Cumberland Mississippian collections in museums across the nation, to which Smith and other colleagues would turn their attention.

Mississippian Iconographic Workshop

A relatively novel approach to the study of Mississippian artifacts was adopted by Kent Reilly and other scholars working under the auspices of the Mississippian Iconographic Workshop, first held at the University of Texas and then at Texas State University, San Marcos:

The participants in the Mississippian Iconographic Workshop are a diverse group of archaeologists, anthropologists, folklorists, art historians, and upon several occasions Native American religious

practitioners. All of these individuals bring with them their enthusiasm and desire to communicate with the Native American past through an interdisciplinary approach...Essentially this methodology begins with the division of the participants into a series of subgroups [organized] around a particular structural or iconographic problem. The members... amass a corpus of photographs and drawings and objects that are central to the problem that they are addressing... When applied to the art and symbolism of the Mississippian peoples, this methodology has provided significant breakthroughs in regard to our understanding of both style and meaning. (Reilly et al. 2011:xiii).

Beginning in 2005, members of a working group at that conference focused their attention on the iconography of the Cumberland Valley. Initial examinations focused on the Thruston Tablet, one of the most complex iconographic stone carvings known from the Mississippian world (Steponaitis et al. 2011) and the negative-painted female effigy bottles that comprise the local representation of one of the most widespread and ancient of indigenous North American religious figures (Sharp et al. 2011). For over a decade, that subgroup of the workshop has focused intensively on Middle Cumberland Mississippian iconography and its intimate interrelationships with contemporaneous groups throughout the Southeast and Midwest. One end result of that research has been the proposition that the majority of the iconography of the MCR focuses on two major themes – the local version of the Hero Twins and the Earth Mother, both widespread North American themes but expressed in unique ways through the art and symbolism of the MCR.

Another significant outgrowth of that workshop was development of the exhibition *ANCESTORS: Ancient Native*

American Stone Sculpture of Tennessee at the Tennessee State Museum (30 Oct 2015-15 May 2016) by Rex Weeks, Kevin E. Smith, and Robert V. Sharp (Figure 20). That exhibition brought together the largest corpus of Tennessee stone statuary ever – and has already revealed some stunning insights into the pigments and raw material sources used in their production (including the fact that some are produced from speleothems – calcite cave formations).

Ultimately, this relatively new and independent line of research can be used in conjunction with more traditional archaeological data to provide new hypotheses and discussions about the chronology (based on stylistic seriation) and the interrelationships of sites. Two specific examples include: the radiocarbon dating of fragments of a specific style of negative-painted female effigy bottle at the Castalian Springs Mounds to ca. AD 1300, anchoring the beginnings of that tradition along the Cumberland; and the linkage of a mound center with a nearby small village by the identification of two effigy bottles created by the same artisan.

These types of studies cannot be completed confidently without at best personal examination of a large number of related objects, or at the very least detailed high resolution photographs. As potential repatriation of many collections has proceeded over the last nearly three decades and escalated recently, the detailed photographic documentation of these collections started by David H. Dye and then pursued collaboratively by Dye, Robert V. Sharp, and Kevin E. Smith of Tennessee collections across the country has been critical to providing the continuing research corpus for many of these studies.

ANCESTORS

ANCIENT NATIVE AMERICAN SCULPTURES OF TENNESSEE

TENNESSEE STATE MUSEUM
OCTOBER 30, 2015 – MAY 15, 2016

An exhibition of ancient Native American statues, on view together for the first time, will open at the Tennessee State Museum this fall. Admission is free.

Ancestors will showcase a Pre-Columbian stone statuary tradition that was found primarily between the Tennessee and Cumberland rivers. The statues were often found in ancestral pairs, each containing a male and a female. All have long been separated since their discovery, and most have been taken far outside the state. The exhibit, which will reunite some of the pairs, will include many which have never been shown.

The exhibit will feature a male sculpture considered to be among the greatest pieces of ancestral Native American art found in the United States. At 19" high, he has made way onto numerous covers of books and magazines, and is included on a U.S. postage stamp for the Art of the American Indian series. In 2014, this statue on loan from the McClung Museum of Natural History and Culture at the University of Tennessee in Knoxville, officially became recognized as the State Artifact. He will join his female mate, which has been graciously loaned by John C. Waggoner, Jr. of Carthage, Tennessee. They were discovered at the Sellars Farm State Archaeological Area in Wilson County, Tennessee, which was once a Native American village from the Mississippian period occupied approximately 700 to 1,000 years ago.

The 28 stone sculptures in this exhibit represent the largest group of Tennessee-Cumberland style statuary, including 14 from the Smithsonian Institution in Washington D.C., two from the Metropolitan Museum of Art in New York City, two from the McClung Museum, five from the State Museum's collection, and five that are held in private collections.

Ancestors: Ancient Native American Sculptures of Tennessee will be on view in the museum's Changing Galleries through May 15, 2016. For more information of the museum's exhibitions and events, visit tnmuseum.org.

FIGURE 20. Advertisement for the ANCESTORS exhibition.

The Present and the Future

To close, the authors have been engaged with the MCR Mississippian for three decades now in many different ways. Older and less vigorous, we are pleased to see that perhaps our work has encouraged the engagement of both established scholars from outside the region and a new generation of scholars working within the region. That new engagement and interests are heartening.

Where are we now? The 21st century did bring about the preservation of several critically important Middle Cumberland Mississippian sites – hopefully in part sponsored by the increasing recognition of the amazing creations of Nashville’s “lost civilization.” The State of Tennessee acquired the Castalian Springs Mounds in 2005 – allowing the establishment of the first multi-year modern scientific

excavation of a Middle Cumberland Mississippian site. The Castalian Springs Archaeological Project, conducted as archaeological field schools by Middle Tennessee State University from 2005-2011 and 2017-present, has begun not only to shed new light on the specific history of the site itself but to provide controlled information on chronology and site layout not previously available.

Perhaps more significantly, however, is the unprecedented recognition of the importance of these sites by municipalities and private land owners. In 2005, the City of Brentwood acquired the Fewkes Mounds (40WM1) and in 2007 opened the first city historical park honoring Middle Cumberland Mississippian peoples (Smith 2005 – a project that also engaged MTSU students and MCAS volunteers). In 2014, the city of Forest Hills partnered with Metro Nashville to purchase the large Middle Cumberland settlement long known as Kellytown and recently renamed “Aaitafama” to establish an historical park preserving and promoting knowledge of this aspect of Nashville’s history.

Over that same period, some private landowners have also turned their attention to ensuring the long-term preservation of mound centers on their private property. The Beasley family in Smith County placed what is now known as the “Beasley Mounds” in a conservation easement protecting the site in perpetuity from development – and provided access and support for modern research (Beahm and Smith 2012; Smith and Beahm 2008).

Most recently, the Frist family purchased Old Town (40WM2) along the banks of the Big Harpeth River in Williamson County with the goal of both preserving the site in perpetuity and promoting the Middle Cumberland Mississippian culture. Working in

partnership with Middle Tennessee State University, the Frists established the on-going Old Town Heritage Project (<http://capone.mtsu.edu/oldtown/>). With on-going near-surface geophysical studies and re-examinations of curated collections, this project is intended to serve as a model for private owners. One outgrowth of the project is an on-going series of workshops for the nascent Middle Cumberland Mississippian Sites Coalition – an organizational framework intended to improve interpretation and visibility of publicly accessible Middle Cumberland Mississippian parks and preserves.

As many of the articles in this special issue of *Tennessee Archaeology* suggest, a new generation of researchers have “taken up the torch” of exploring the story of the Middle Cumberland Region and its late prehistoric peoples. In addition, several well established scholars have also turned their attentions to incorporating the region into broader discussions of the Mississippian world.

The continuing efforts to promote preservation through scholarship – and public outreach – are critically important. Despite the heartening news of expanding efforts by municipalities and private owners to preserve a few of these sites, greater public awareness and appreciation of their significance remains the strongest tool in raising support for continuing efforts in these areas.

With the Nashville construction rebound after the most recent recession, redevelopment of the city core, the expansion of suburbs throughout seven counties, and the new phenomenon of “exurbs” continually threatens the surviving remnants of some major towns, while also exposing, threatening, and destroying previously unknown sites. Alongside the heartening news presented

previously, within the past year, some of the last remnants of the Logan site (40DV8) were largely destroyed ancillary to a stone-box cemetery removal and relocation project. That complex of large towns along Richland Creek was undoubtedly one of the largest and most important settlement clusters remaining in the MCR between A.D. 1300 and 1475 – and remains virtually unknown to modern archaeology.

This special issue, with contributions by many new scholars working on the MCR, suggests that despite all the preservation issues great new things are still happening. We continue to do justice as best we can to the story and the history of the Middle Cumberland Mississippian peoples – despite the sidebar of how the success of modern Nashville continues to chip away at the remaining database. The story of late prehistoric North America will be sadly incomplete in the absence of the Middle Cumberland Mississippian peoples.

Notes:

- ¹ This paper represents a substantially revised version of the “Discussant Comments” presented by Kevin E. Smith during the 2016 Southeastern Archaeological Conference.
- ² The ultimate disposition of the objects from this first Tennessee Museum, and specifically those from Earl’s investigations remains unclear.
- ³ Although the author is not indicated, the writer is probably Frederic Ward Putnam, who was then editor.
- ⁴ Part of Benjamin Franklin Cheatham Jr. collection is held by the Tennessee State Museum, probably acquired initially by Gates P. Thruston. George T. Halley donated his collection to Vanderbilt University, where it is currently curated, and the Otto Giers collection was purchased initially by Paul Hunter of Nashville, who subsequently sold it to the Museum of the American Indian in New York. The Giers collection is currently curated by the National Museum of the American Indian. The current whereabouts of the W.W. Dosier and E.C. Wells collections are unknown.

Acknowledgements. We extend our gratitude to all of the hundreds, if not thousands, of individuals who have helped to further the goals of the Middle Cumberland Mississippian Survey Project over the years. We draw special attention once again to the immense contributions of John T. Dowd, without whom our understanding of the MCR would be significantly poorer. We also acknowledge the many years of assistance in archives and collections from Stephen T. Rogers and Emily L. Beahm.

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FIVE NEW PREHISTORIC CAVE ART SITES IN TENNESSEE 2005

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In 2005, five new prehistoric cave art sites were discovered in Tennessee, designated 43rd through 47th Unnamed Caves in our regional nomenclature. These additions brought the total number of art caves known in the Southeast to 52 in 2005. Three of the caves are owned by the State, their discovery and analysis sanctioned by State archaeological permits. A fourth is under Federal stewardship. The sites contain a variety of art, including both petroglyphs and pictographs. Most appear to date late in Tennessee's prehistoric sequence (i.e., Mississippian).

In the Winter 2017 issue of *Tennessee Archaeology* (Volume 9, Number 1), members of the Cave Archaeology Research Team (CART) at the University of Tennessee, Knoxville, published a report on their survey activities in 2015 (Simek et al. 2017). As we noted there, this research group has made annual reports to archaeologists and interested lay persons at the Current Research in Tennessee Archaeology (CRITA) conference organized in Nashville every year by Kevin E. Smith of Middle Tennessee State University and Michael C. Moore of the Tennessee Division of Archaeology. In those presentations, we have typically discussed new discoveries of prehistoric (and occasionally, historic) rock art in Tennessee, both open-air art and dark zone cave art. For the most part, these reports have been descriptive, sometimes partly integrative, but they have always been designed to alert the archaeological community to the rich and varied (and still mostly undiscovered) corpus of ancient art that the State of Tennessee contains. Because of the setting and the informal nature of the presentations, however, most of these reports have never been published.

Kevin E. Smith and Michael C. Moore, Editorial Coordinators of *Tennessee Archaeology*, agreed last year that publishing these presentations as research

reports in the journal might be useful to archaeologists as basic information about these important and sometimes compelling sites. We also discussed the possibility of publishing our older reports so that a fuller catalog of Tennessee rock art sites is available to those interested in our work over the years. This paper is one from those past presentations, the CRITA report we gave in 2006 concerning newly discovered Tennessee rock art found in 2005. In the text that follows, comments from the perspective of 2017 are marked with italics when they are included.

As of 2017, the CART at the University of Tennessee has for two decades been actively surveying Tennessee's more than 10,000 caves for evidence of prehistoric use, including ritual use for cave art production. We now know of 81 art caves east of the Mississippi River, all in the Appalachian plateau and mountain regions. Of this total, 57 are recorded in Tennessee.

In 2005, five new cave art sites were recorded for the first time in Tennessee alone (we also recorded several new sites in adjacent states in that same year); some were clearly prehistoric, others less certainly so. In keeping with our use of a numerical nomenclature to protect the sites and their locations, we referred to these new sites as 43rd through 47th Unnamed Caves. *The traditional names for some of*

these caves were revealed after 2005 because they were protected from vandalism. In this paper, we will report briefly on each of these new cave art sites in the order they were recorded.

43rd Unnamed Cave

43rd Unnamed Cave is among the storied caves in eastern North America. In 1810, the remains of *Megalonyx jeffersoni* — giant Pleistocene ground sloth — were discovered, beginning a long period of interest in the cave for paleontological reasons (Barr 1961). On several occasions, materials from the cavern have made their way into the collections of the Academy of Natural Sciences in Philadelphia. In the 1970's, more Pleistocene faunal remains were discovered, including *Panthera onca* — jaguar — and these were described by Guilday and McGinnis (1972). 43rd Unnamed Cave has a human use history, too. The cave was mined prehistorically for cave salts during the Woodland period (Crothers 1987). It was known to long hunters at the turn of the 18th century, and was mined for saltpeter during the War of 1812 (Smith 1985). During the Civil War, a massive industrial niter mining operation was installed at the site by the Confederate Niter Bureau (Smith 1987), involving some of the most impressive subterranean engineering known from the era (Figure 1). The cave was also mined for guano for fertilizer in the following decades. In recent years, the site came under stewardship of the State of Tennessee, and today, it is protected within the confines of a state park. As part of its stewardship, the Division of Archaeology contracted with the University of Tennessee to survey its prehistoric resources, and some of the more impressive artifacts were removed for their protection (Figure 2). Still, the density and complexity of historical

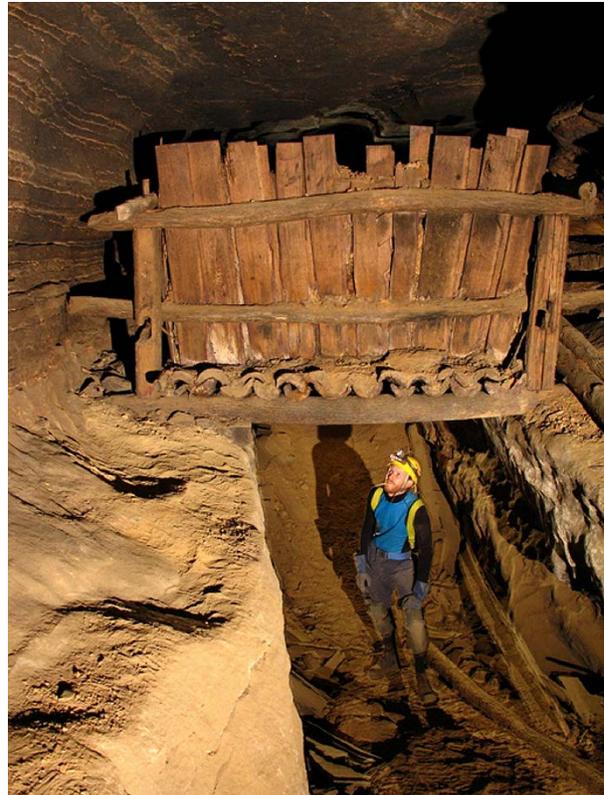


FIGURE 1. Civil War period saltpeter processing vat in 43rd Unnamed Cave.

resources within the cave make large-scale interpretive public visitation problematic.

Until 2005, no prehistoric cave art had ever been discovered in 43rd Unnamed Cave despite the intensity of its prehistoric use. This past year (2005), however, three separate possible glyph areas were identified by Alan Cressler, all in remote passages of the cave. We stress that these are only possible prehistoric artifacts, as no ¹⁴C age determinations have been attempted that might be related to these features. A panel of line petroglyphs is found at the back of the passage showing heaviest prehistoric activity in the cave, an area where little historic intrusion is evident. While this panel is composed only of a series of incised lines, these do not have the typical linear pattern we see with the saltpeter miners' "tally marks" use to count their extractions. We have seen



FIGURE 2. Pair of woven fiber moccasins from 43rd Unnamed Cave. Probably Woodland period.

similar line patterns in several prehistoric cave sites in the region.

A second set of glyphs are pictographs found in an entirely different part of the cave. These are flowing, geometric patterns done with red pigment, some with clear if enigmatic form (Figure 3), and all are associated with cane torch stoke marks (Figure 4). Again, we cannot yet be certain that these are prehistoric tracings, but their color suggests the use of mineral pigments, something we have not seen done by historic saltpeter miners.

A third panel of pictographs is rendered in charcoal (Figure 5), comprising lines and shapes associated with river cane torch stoke marks produced by canes of considerable size. On the right end of this panel, a claw-like glyph was rendered with a charcoal crayon applied very densely to the wall. Again, this kind of effort is not

typical of historic miners' graffiti. More importantly, this image may hold enough carbon to allow direct ¹⁴C dating of the image. Thus, while the chronology of the 43rd Unnamed Cave images is uncertain, it is difficult to reconcile them with the usual nature of historic graffiti production, and at least one of the images holds promise for direct assessment of age.



FIGURE 3. Red pictograph from deep passage in 43rd Unnamed Cave.



FIGURE 4. River cane torch stoke marks on wall of 43rd Unnamed Cave.



FIGURE 5. Panel of black pictographs, including what appears to be a curved raptor talon on the right, from a deep passage in 43rd Unnamed Cave.

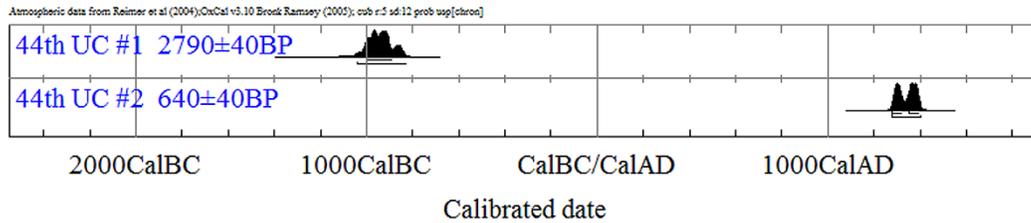


FIGURE 6. Radiocarbon age determinations from cane torch fragments found in 44th Unnamed Cave.

44th Unnamed Cave

The prehistoric art in 44th Unnamed Cave was discovered in January 2005 by Joe Douglas (Volunteer State Community College), Amy Wallace (Tennessee Department of Environment and Conservation, TDEC), and caver Larry Mathews. On a historical research visit to the cave, charcoal drawings were recognized in a dark zone passage, and Douglas sent a photograph to the senior author. In February of 2005, Simek joined Douglas, Wallace, John Froeschauer (TDEC), and Alan Cressler to visit the site. On that visit, the group observed the glyphs that had been discovered in January, and we found a significant number of additional pictographs and petroglyphs in the same area of the cave. On this and subsequent trips, other pictographs were found in other parts of the cave. The cave floor sediments were also examined for evidence of prehistoric occupation, along with numerous river cane torch fragments scattered throughout the cave passages. Two initial ¹⁴C dates from cane charcoal (Figure 6) show that the cave was visited at least during the Late Woodland and Mississippian periods. Based on our initial observations, we applied for and were granted a state permit for archaeological work in the cave. After four 2005 survey visits to 44th Unnamed Cave, we had recorded, mapped, and documented a total of thirty individual



FIGURE 7. Petroglyph composed of three concentric circles from 44th Unnamed Cave.

glyphs, all but a few concentrated on four panels in a single large cave gallery. Twenty-eight of the thirty images are of single circles, concentric circles, arcs or partial circles, abstract designs that incorporate circles in some way, or classic Mississippian cross-in-circles. The other two images are a pair of abstract lines and a remarkable human depiction that we will discuss shortly.

Nineteen individual glyphs are sets of concentric circles. Some images have only two circles, some have three nested together (Figure 7), and one complex image has four overlapping circles of diminishing size (Figure 8). As is evident from the photographs, concentric circles are produced using two techniques. Some images are pictographs drawn in black pigment, (Figure 9). Others are petroglyphs engraved into the limestone of



FIGURE 8. Petroglyph composed of four concentric circles from 44th Unnamed Cave.



FIGURE 9. Black pictograph composed of three concentric circles from 44th Unnamed Cave.

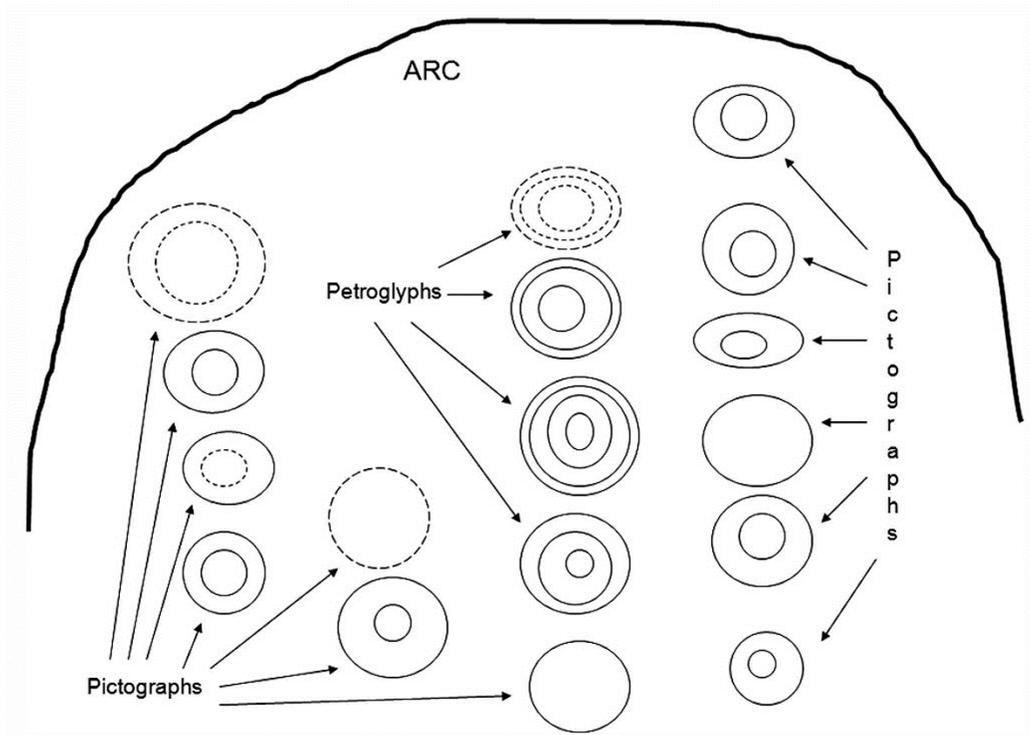


FIGURE 10. Schematic drawing of 44th Unnamed Cave's Panel 3, a composition of 17 concentric circle motifs, both pictographs and petroglyphs, enclosed within a black painted arch (after Simek et al. 2012).

the cave wall. In at least one case, both production techniques are used in a single glyph, demonstrating that both methods were used at the same time. In the main glyph gallery of the cave, seventeen of the circle glyphs are disposed in a single array with four vertical lines of images. These

lines include two up to six circle glyphs each, and they are spaced about one quarter meter apart. A black arc encloses the circles from above, forming what we call Panel 3 (Figure 10).

Circle motifs are common during the Mississippian period, but they are not



FIGURE 11. Amy Wallace examining two rayed circle pictographs in 44th Unnamed Cave. Arrow at top of photograph indicates location of “1847” date scratched over the pictograph panel.

chronologically diagnostic in and of themselves, because they can be found in art from a variety of prehistoric periods early and late. There are, however, some circles in 44th Unnamed Cave that do have chronological referents (Figure 11). Two of these are the pictographs originally discovered by Douglas and his group in January 2005. Both are located on our Panel 2. They comprise concentric circle images with denticulate exterior rings and crosses of different forms inside the inner rings. Also note the “1847” date, indicated by an arrow on Figure 11, scratched over the black glyphs. Figure 12 shows the left-hand glyph under red light for clarity. The denticulations of the outer circle and a straight-line cross inside the central circle

are clearly visible in this light. Figure 13 shows the right-hand image. This glyph has a “tail” on the outer denticulated circle and a swastika cross in the center.

The denticulate cross motif is found frequently in Mississippian archaeological contexts (e.g., Figure 14). It is characteristic of a Mississippian-period gorget style referred to as the “Cox Style” by Brain and Philips, where it is combined with woodpeckers into a complex design (Brain and Phillips 1996). The Cox Mound, itself, is in Jackson County Alabama just south of the Tennessee state line, but the gorget style has two main concentrations. One is along the main Tennessee River in north Alabama and south Tennessee and the other is in northern Tennessee along



FIGURE 12. The leftmost black rayed circle from 44th Unnamed Cave shown in Figure 11. A straight-line cross fills the center circle of the motif. There are nine ray points around the circumference.



FIGURE 13. The rightmost black rayed circle from 44th Unnamed Cave shown in Figure 11. A swastika fills the center circle of the motif. There are eight ray points around the circumference. Note that one ray is much longer than the other seven.

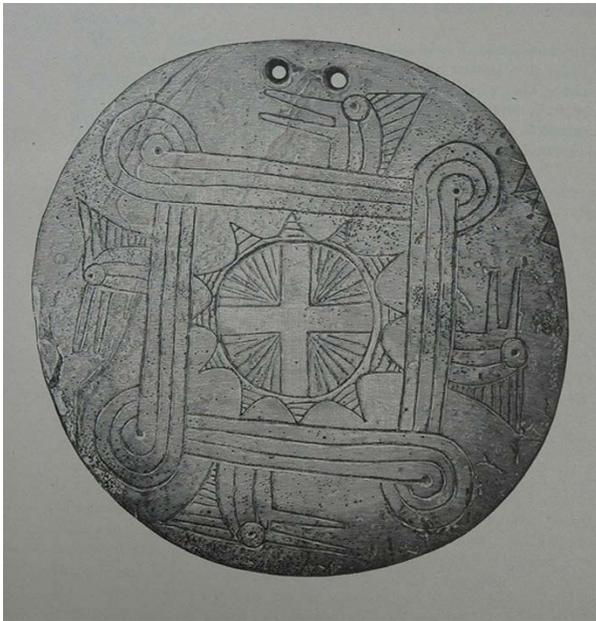


FIGURE 14. Cox style shell gorget reportedly from Mississippi (Holmes 1883).

the Cumberland River (Brain and Phillips 1996:11). 44th Unnamed Cave lies almost at the center of this second concentration. Wherever it is found, the presence of these denticulate cross images is strong evidence for a Mississippian origin and accords well with the later of our two radiocarbon age determinations from 44th

Unnamed Cave.

The last image we present is quite distinctive (Figure 15). It is an anthropomorph in a horizontal or reclining posture, clearly male, with well-defined arms and legs. Three fingers appear on the lower arm. The lower appendages (legs) thicken towards the feet, and those feet have claws, suggesting an animal element to the creature's makeup. The stippled head of this image is quite unusual. There is an axe or calumet above the head and a curving line extending out from the upper part of the head. The trunk below the arms is well defined and filled with pigment. The anthropomorph's waist and upper legs are covered with an hour-glass shaped garment, a kilt perhaps, which has several lines suggesting folds or decoration, but does not conceal the individual's phallus. This image makes a great deal of sense in Mississippian iconography. Warriors, a common and important element in Mississippian art, are often shown with elaborate head decoration, including weapons, like the bi-lobed arrow on one of the famous Rogan plates from Etowah in Georgia (King 2004:150-157). Curling hair

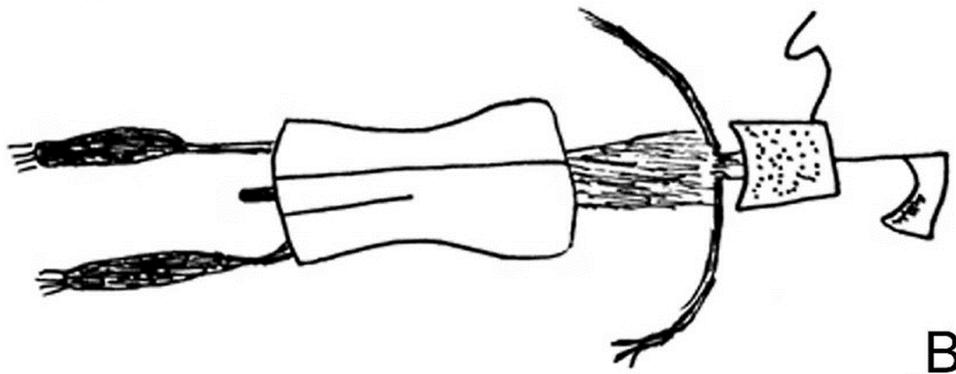
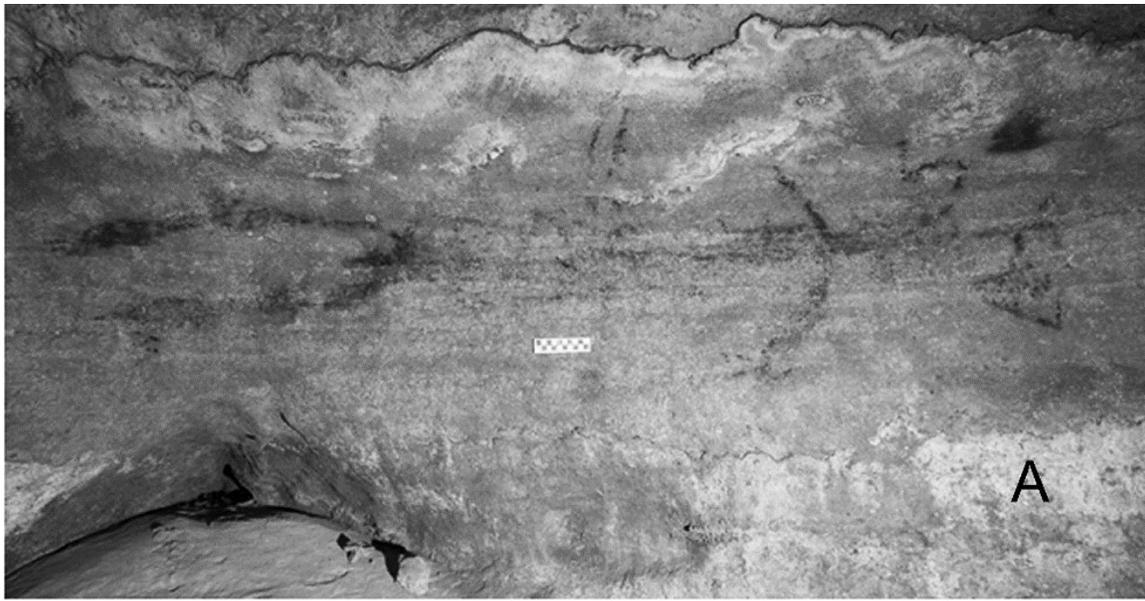


FIGURE 15. Photograph (top) and sketch (bottom) of reclining black anthropomorph figure from 44th Unnamed Cave (after Simek et al. 2012).

locks are also common aspects of the warrior's regalia. The 44th Unnamed Cave anthropomorph is quite comprehensible as a depiction of a Mississippian warrior, and this fits quite well chronologically with the denticulate circles discussed earlier.

A note from 2017: 44th Unnamed Cave is in Dunbar Cave State Natural Area, managed by the Tennessee State Parks in Clarksville, Tennessee. After discovery of the prehistoric art in the cave, a new bat friendly gate was built to protect the site, and the cave became the first prehistoric art cave in the Eastern Woodlands to be shown and interpreted for the public. In

2010, bats inside the cave were diagnosed with white-nosed syndrome, and the cave was closed to visitation to protect the animals from further infection. In 2015, the cave was reopened to visitors, and Park rangers today offer public tours that include viewing of the ancient pictographs. Since our 2006 CRITA presentation, we have twice published articles about the art in 44th Unnamed Cave (Simek, Douglas and Wallace 2007; Simek et al. 2012); the second of these citations also discusses the archaeology of the site and details of occupation chronology.



FIGURE 16. Petroglyph panel from 45th Unnamed Cave, showing the coating of damp mud that obscures parts of the imagery.

45th Unnamed Cave

45th Unnamed Cave is a small seemingly insignificant cave identified as a prehistoric art site in July 2005 during the University of Tennessee's *pro bono* archaeological inventory survey of Fall Creek Fall State Park. Almost certainly, the cave has seen frequent, long-term recreational use, as it is in an area of great interest to cavers. The cavern has a narrow entry passage into an open dark zone chamber containing a few petroglyphs, and a more extensive maze area deeper into the karst system. The area containing the petroglyphs is damp, and the walls bear a coating of moist clay, making the finely incised lines composing the glyphs difficult to decipher (Figure 16).

Still, representational images can be

seen. At least three turkeys are present (e.g., Figure 17) drawn in a fashion identical to some we have seen in other southeastern cave art sites (Simek and Cressler 2015). Note especially the three toes that signify a turkey. There are two quadrupeds (e.g., Figure 18) with strange head appendages unlike any known animal. There is one serpent effigy, difficult to see in a photograph, so we show it here only as a sketched rendering. These six glyphs are associated in a single panel (Figure 19) on one side of the main chamber; they are near a speleothem feature that relates to a small active water flow. A seventh petroglyph (Figure 20) is isolated on the chamber wall on the other side of the flowstone embankment from the panel. This is an effigy in the form of a human figure.

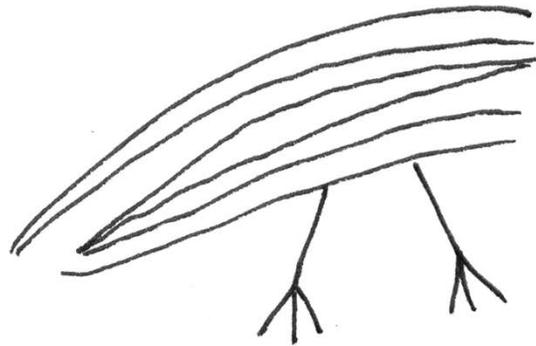


FIGURE 17. Turkey petroglyph from 45th Unnamed Cave. Note the three-toed feet.

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FIGURE 18. Quadruped petroglyph from 45th Unnamed Cave. Note the multiple shapes used to depict the animal's head.



FIGURE 19. Sketch of petroglyph Panel 1 from 45th Unnamed Cave. Three turkeys, a serpent, and two quadrupeds can be identified.

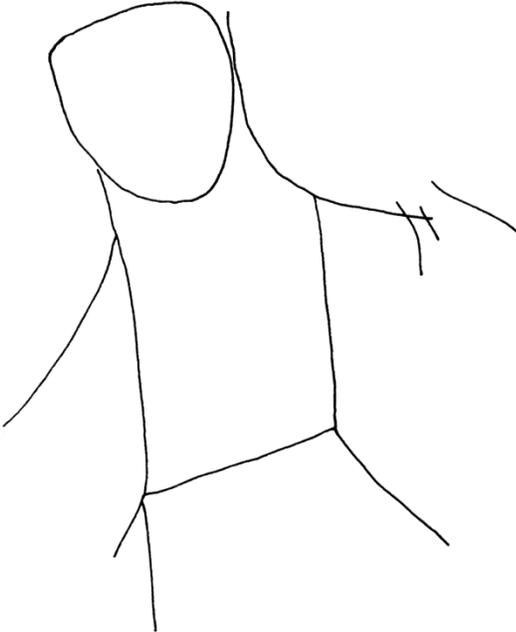


FIGURE 20. Sketch of petroglyph Panel 2 from 45th Unnamed Cave showing the single anthropomorph figure composing the panel.

As is the case for 43rd Unnamed Cave, there is no certain evidence for the prehistoric age of the 45th Unnamed Cave petroglyphs. Still, because of the way that some of the images are drawn, especially the turkeys, we are confident that at least some of the engravings are prehistoric in age. The depictions of quadrupeds are distinctive; perhaps counter-intuitively, terrestrial mammals are rarely drawn in rock art in the southeastern region, whether in or outside of caves. This contrasts with regions further north, where mammals like deer, bear, bison, and moose are commonly depicted both as pictographs and petroglyphs. But we do see quadrupeds in caves from time to time, especially canids or dogs (Simek and Cressler 2008). There are a few other examples in our region, in 10th Unnamed Cave in Tennessee not far from Fall Creek Falls and in 19th Unnamed Cave in Alabama.

46th Unnamed Cave

46th Unnamed Cave is in the Great Smoky Mountains National Park, and cave art was discovered there during a July 2005 survey of park cultural resources carried out by a University of Tennessee summer field school in archaeology directed by Boyce Driskell. The cave itself has been known for many years. It was mined for cave minerals during the 19th century, and the walls of the cave mouth are covered with graffiti and signatures. A small saltpeter works was present in the cave, witnessed by remnant leeching vats, although the chronology of those activities is currently unknown. At one time, the cave was open to the public (the National Park Service has closed it now), and the floor was leveled to allow easy access to the interior pools, gours (rimstone dams), and flowstone formations, all of which are quite beautiful.

This modification, along with the saltpeter mining, probably explains the lack of cane torch materials evident on the floor of the dark zone passageways.

A single charcoal pictograph was discovered in 46th Unnamed Cave during a visit by Annie Blankenship, Joe Douglas, and Kristen Bobo to inspect the cave walls on behalf of the UT Cave Archaeology Research Team. The image is of a turkey with an oval body and extended neck (Figure 21). As can be seen from the photograph, the charcoal is covered by a thin, clear layer of flowstone, protecting the image and indicating its antiquity. While again we have no direct chronological information about the glyph, the way the bird is rendered, with a fan-shaped tail showing sagittal segments, is identical to numerous prehistoric examples from other caves. On a nearby breakdown boulder, a small cup mortar resembles those from other art caves, including 12th Unnamed Cave, which shares the turkey motif (Simek and Cressler 2015).

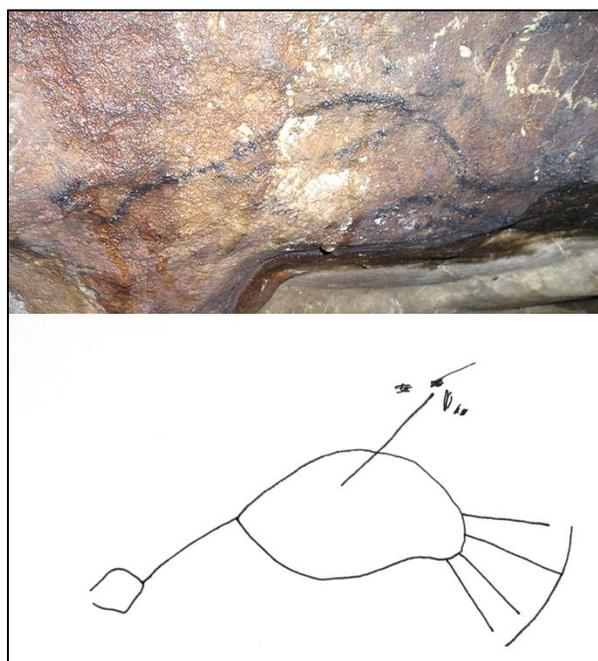


FIGURE 21. Photograph (top) and sketch (bottom) of a black turkey pictograph from 46th Unnamed Cave.



FIGURE 22. Panel of deeply incised (pecked?) petroglyphs from 47th Unnamed Cave.

47th Unnamed Cave

We became aware of 47th Unnamed Cave, the last cave we will discuss here, when Annette and Ken Oeser contacted Simek in late 2005 about a series of petroglyphs they had seen in a shallow, twilight cave west of Nashville. Ken and Annette were familiar with cave art in Tennessee, having also discovered 38th Unnamed Cave, which contains an important group of prehistoric engravings in association with a mortuary site. What was particularly interesting in 47th Unnamed Cave was Annette's observation that several petroglyphs were incised into areas of pigment staining, suggesting that there might be two episodes of art production, with pictographs preceding petroglyphs.

The UTK CART visited 47th Unnamed Cave in December 2005. We found a fine panel of petroglyphs deeply engraved, hammered, and/or pecked into an

extremely hard travertine surface at the base of the cave wall (Figure 22). The left side of the group begins with a remarkable anthropomorph (Figure 23). This image has a head composed of concentric circles and an upper body drawn with multiple parallel lines. The figure's arm is extended to terminate in a fine, four-fingered hand. As can be seen on the accompanying photograph, there are two areas of colored pigment associated with this human image. Neither of these, however, renders a shape that would suggest an earlier, unrelated pictograph production episode. The head of the anthropomorph was obviously cut through an area of red pigment. The amazing hand (reminiscent of "ET") was cut through black pigment. The red pigment must be mineral, but the black coloration was worrisome, as it appeared at first glance to resemble bat guano. If it is guano, it cannot be very old, and nor can be the hand incised over it. The other glyphs on the panel (Figure 24) are



FIGURE 23. Anthropomorph petroglyph from 47th Unnamed Cave. Note that red paint was applied to the wall in the area of the head and black pigment was applied at the hand *before* the petroglyph was incised through the coloring.

complex geometric shapes and lines, some rather eroded, that were also made by sculpting deep, rounded grooves like for the leftmost anthropomorphic image.

To test whether the pigments underlying the petroglyphs were mineral or organic (e.g., guano) we tried to take small scrape samples from both the black and red areas under the anthropomorphic petroglyphs. We were unable to do so. During the attempted sampling, we broke two surgical steel scalpel blades trying to remove a single grain of both the red and the black pigments. It was clear that the pigments are embedded in an old and cemented flowstone and that a great deal of time and energy was required to produce the glyph panel. Given the texture and context, therefore, the black color is likely not guano. We don't know how old the images are, but it seems very probable that they are prehistoric.

We note that the owner of the site has told Annette and Ken Oeser that burials were rumored to have been found in the cave, and indeed, there is a large pothole excavation at the base of the wall containing the petroglyphs. However, we saw no evidence of human bone in the cave, and the only artifacts found by searching the floor surfaces were fire-cracked river cobbles. Stylistically and contextually, these petroglyphs could be quite old, but we have no solid chronological information to support this assertion.

Concluding Remarks

These five new caves discovered in 2005 are important additions to the assemblage of southeastern cave art sites for several reasons. First, it is clear that we are only beginning to find the sites that are



FIGURE 24. Complex filled geometric petroglyphs incised into the wall of 47th Unnamed Cave. The leftmost image is of a partitioned semi-circle filled with horizontal line segments. The rightmost image is a set of three concentric figure “8” forms.

out there and that discovery of cave art is a function of looking for it. This means that we must inspect all caves routinely as part of cultural resource management projects or we risk destroying this spectacular and unique aspect of Tennessee’s archaeological record. It also means that one day, we might have a rich and varied catalog of maybe hundreds of cave art sites, a problem I suspect we could deal with were it to develop. (*We note that in 2017, we have more than 80 cave art sites cataloged for the Southeast US*). Second, two of the sites, 44th and 47th Unnamed Caves, are the westernmost examples of these prehistoric art caves in Tennessee. Thus, the geographic range of these sites is expanding. Third, four of the sites are under public ownership, ensuring a greater level of protection than usual for these sites. At least one of the public caves, 44th Unnamed Cave, is in a context where

public visitation on a large scale could be encouraged, with possibilities for significant educational interpretation of native Tennessee cultures in the presence of actual prehistoric cave art. This would certainly give needed visibility to the Tennessee State Park system and would have significant economic development implications for the community where the site is located. In sum, 2005 is an exciting time to be searching for prehistoric cave art sites in Tennessee, and our job has only just begun.

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