

An Open Access Georeferenced Shapefile for the Middle Cumberland Region of Central Tennessee

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ABSTRACT

The Mississippian period archaeological record of the Cumberland River watershed of north-central Tennessee, known as the Middle Cumberland Region (MCR), has attracted the attention of scholars and archaeologists for over a century. Geographic definitions of the MCR have shifted and been refined over time, and the geospatial boundaries of the region have not been presented at a modern, GIS-based level. Herein we examine the history of geographic boundaries assigned to this regional Mississippian culture, and offer the first open-access, georeferenced GIS shapefile of the Middle Cumberland Region.

KEYWORDS

Mississippian; Middle Cumberland Region; Cumberland River; Nashville; Middle Tennessee

Since the nineteenth century, antiquarian scholars and both avocational and professional archaeologists have engaged with the archaeological record of the many Mississippian period (ca. AD 1000-1500) villages, mound centers, and cemeteries located in the Cumberland River watershed of north-central Tennessee. The combination of ceramic types, burial methods, and site histories led to early recognition of the area as a unique center of regional Mississippian culture, known today as the Middle Cumberland Region (MCR). Subsequent research examining the bioarchaeology (e.g., Berryman 1984; Eisenberg 1986, 1991; Fojas 2021; Kelso 2018; Vidoli 2012; Vidoli and Worne 2018; Worne 2017a, 2017b; Worne et al. 2012), settlement patterns and chronology (e.g., Cobb et al. 2015; Krus and Cobb 2018; Moore and Breitburg 1998; Moore and Smith 2009, 2016; Smith and Moore 1996), ceramic typologies (e.g., Beahm 2013, Smith et al. 2004), the artistic record (e.g., Moore et al. 2014; Smith and Miller 2006; Sharp 2019; Sharp et al. 2020), and mortuary patterns (Broster 1988; Brown 1974; Dowd 2008; Jones 2019), have refined the concept of the MCR and shaped the way archaeologists understand the trajectory of Mississippian culture in the Cumberland River Valley.

Archaeological studies over the past 50 years have significantly refined understandings of the geographic extent of the MCR (e.g., Beahm and Smith 2012; Ferguson 1972; Smith 1992; Moore et al. 2006; Moore and Smith 2009; Smith and Moore 2018). As research interest in the region continues to grow, there is a need for an accessible geospatial reference for this unique Mississippian culture area. Herein we examine the history of geographic boundaries assigned to the MCR, and offer the first open access, georeferenced GIS shapefile of the region.

BACKGROUND

Broadly defined, the MCR presents a heartland of regional Mississippian period culture within the Cumberland River watershed of north-central Tennessee.¹ Antiquarian scholars recognized the presence of a unique archaeological culture in this area by the nineteenth century, primarily based on distributions of stone box graves (Haywood 1823; Jones 1876; Robertson 1878; Thomas 1894; Thruston 1888, 1890). This burial mode is observed elsewhere in the archaeological record of the Mississippian period (e.g., Brown 1981), however early scholars noted apparent consistency in cemetery density and artifact associations from stone box burials in the Cumberland River Valley near Nashville. As a result, early discussions of Mississippian archaeology in the region reference the “Stone Grave Peoples” (e.g., Jones 1876; Thomas 1894), and the “Stone Grave race of Middle Tennessee” (Thruston 1890). William Edward Myer also recognized shared cultural characteristics between mound and village sites in the region, which he assigned to the “Gordon people” after his extensive investigations at the Gordontown site (40DV6) in Davidson County (Myer 1928).

In 1972, Robert Ferguson provided the first definition of the *Middle Cumberland Culture* (MCC) as extending between “the confluence of the Caney Fork River and the Cumberland on the east, and the junction of the Cumberland and Ohio Rivers on the west” (1972:3).² Ferguson’s definition sought to identify the extent of culturally-related Mississippian occupations based on his own observations, as well as those of Myer (1923, 1928) and other early archaeologists. No specific map of Ferguson’s MCC was ever published, but as visualized in Figure 1A, this region encompasses more than 4.6 million acres in Tennessee and Kentucky, including the Cumberland basin from Cumberland River Mile (CRM) 309.1 downstream to its mouth at the Ohio River. Ferguson’s proposed boundaries have since been substantially revised, and while the MCC terminology has been generally abandoned, it still occurs occasionally in recent research (e.g., Bandel 2012; Kelso 2013; Mathena 2013; Maxwell 2011; Phillips 2013; Smith and Betsinger 2019; Wamsley 2018).

The first use of the MCR designation is found in Kevin Smith’s seminal 1992 dissertation, which sought to better describe the Mississippian cultural tradition of the Cumberland River Valley in north-central Tennessee. That effort employed distributions of shell-tempered ceramic styles including Mississippi Plain, Bell Plain (including var. Noel), Kimmswick Fabric Impressed, Kimmswick Plain, Matthews Incised (including var. Matthews, Manly, Beckwith), Nashville Negative Painted, and more rarely Mound Place Incised, to suggest cultural connections for

¹ See Smith and Moore (2018) for a detailed synthesis of scholarship on the MCR.

² For further discussion of the geographic and cultural divisions along the Cumberland River Valley in Tennessee, see Deter-Wolf and Peres (2019).

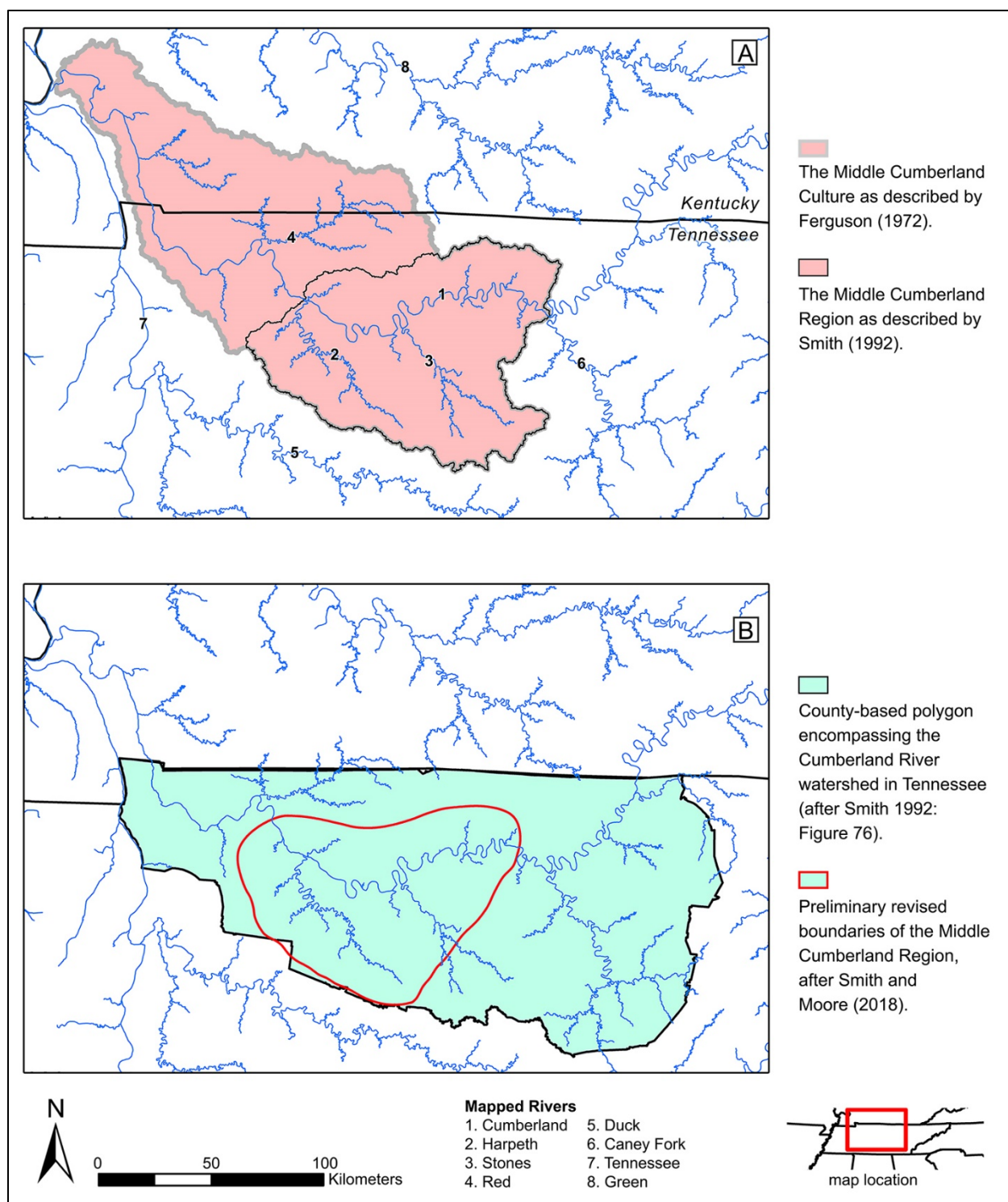


Figure 1. The Cumberland River watershed in Tennessee, showing variations in previously-mapped culture areas.

sites along “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” (Smith 1992:6). Lake Barkley was created in the early 1960s following impoundment of the Cumberland River above Barkley Lock and Dam in Kentucky (USACE 2017), with an upstream terminus at Cheatham Lock and Dam, just below the mouth of the Harpeth River (CRM 148.8). Smith’s dissertation did not include a formal map of the MCR, however, Figure 1A presents a polygon visualized from his description. That area encompasses approximately 2.19 million acres of the Cumberland River watershed between the confluences of the Caney Fork and Harpeth Rivers.

Smith’s dissertation includes a regional map that does not depict the MCR, but rather shows the locations of recorded Mississippian mound and village centers within the overall Cumberland River watershed of Tennessee (Smith 1992:Figure 76)(Figure 1B). The extent of that figure is based on the political boundaries of modern Tennessee counties, and extends well beyond the defined MCR to encompass an additional 3.71 million acres. Despite the captioned intent of the original figure, many subsequent maps of the MCR incorrectly derive from this county-based polygon (e.g., Beahm 2013; Cobb and Steadman 2012; Cuadra 2019; Sharp 2019; Smith and Miller 2009; Vidoli 2012; Worne 2017a, 2017b; Vidoli and Worne 2018).

Smith’s initial geographic estimate of the MCR continued to be refined through subsequent research. Studies of Mississippian culture in the Nashville area (e.g., Moore et al. 2006; Smith and Moore 1996) established a revised western limit for the MCR at the mouth of the Red River (CRM 124.9). In support, researchers identified a “general absence of such critical Lower Cumberland diagnostic ceramics as Old Town Red, Barton Incised, Wickliffe Thick, and O’Byam Incised east of Montgomery County [which] strongly suggests a cultural boundary somewhere around the confluence of the Red and Cumberland Rivers” (Smith and Moore 1996:51). This same area was described by Miller and Smith in their exploration of Tennessee-Cumberland Style Mississippian Stone Statuary:

Middle Cumberland culture is ... a taxonomic unit encompassing a number of phases and possessing traits sufficiently characteristic to distinguish it from all other units similarly conceived. Based primarily on the distribution of diagnostic ceramic traits, the boundaries of the culture area have been designated to include sites within the Cumberland River drainage between the confluence of the Caney Fork and Cumberland rivers on the east, and the confluence of the Red and Cumberland rivers on the west. (Miller and Smith 2009:37)

The eastern limit of the MCR was clarified by Beahm (2013), whose investigations at Beasley Mounds (40SM43) and Moss Mound (40SM25) found ceramics that differed from typical MCR assemblages. These included relatively higher percentages of shell-tempered cordmarked (McKee Island Cordmarked) and shell-tempered check-stamped (Wolf Creek Check-Stamped) ceramics than were present at other nearby Mississippian mound sites. Other ceramic types at the Beasley and Moss sites include fine shell-tempered red filmed, cob-marked, combed, and brushed sherds, all of which are rare in MCR assemblages. Finally, the Beasley and Moss sites present a general absence of effigy vessels and negative painted wares, such as are commonly found to the west. These patterns suggest that the Beasley and Moss sites are situated beyond the eastern periphery of the MCR, along with most if not all of the Caney Fork River drainage. The MCR’s eastern frontier is therefore presently established below the confluence of Dixon Creek and the Cumberland River (CRM 285.15).

In 2018, Smith and Moore mapped “preliminary revised boundaries” for the MCR in their discussion on the past and future of archaeology in the region (Smith and Moore 2018:Figure 1)(Figure 1B). As shown in Figure 1B, that polygon generally encompasses the Cumberland River watershed below Dixon Creek. In a departure from previous descriptions (Miller and Smith 2009; Smith and Moore 1996), the revised western limit lies at the approximate confluence of the Cumberland and Camp Creek (CRM 139), and to the south falls below the East Fork/West Fork split of the Stones River.

In his 1992 dissertation, Smith references Mississippian culture within the study area using both the MCR designation as well as the term *Middle Cumberland Mississippian* (MCM). He writes: “The late prehistoric cultures of the Middle Cumberland region, as they have been described herein, meet most of [Bruce Smith’s 1978] criteria, and thus merit the term Middle Cumberland Mississippian” (Smith 1992:398). Although use of MCM both as a formal term and a descriptive identifier has continued throughout subsequent literature (e.g., Clinton and Peres 2011; Dowd 2008; Moore 2005; Moore et al. 2006; Moore et al. 2014; Peres 2010; Smith 1994; Smith and Moore 2012; Spears et al. 2008), there has not yet been a discussion as to the specific cultural, temporal, or spatial definition of the MCM and how it may be identical to, or different from, the MCR.

METHODS

A geospatial rendering of the MCR was created following a review of existing syntheses (e.g., Beahm 2013; Ferguson 1972; Miller and Smith 2009; Moore et al. 2006; Smith 1992; Smith and Moore 2018) and in communication with Tennessee State Archaeologist (now retired) Mike Moore. The polygon was visualized in ArcMap 10.8.1, and following definitions by Smith and Moore (1996), and Miller and Smith (2009), relied on the natural watershed boundaries of the Cumberland River and its tributaries. The initial polygon was derived from the 10-digit Hydrologic Unit (HU-10) USGS Watershed Boundary Dataset (USGS 2020), and subsequently refined using archaeological data. The hydrological background for the model presented in Figure 2 consists of waterways having an approximate natural flow with reference gauge regression of >10 cubic feet/second, as identified in the USGS National Hydrography Dataset (USGS 2020).

The resulting shapefile was used to query the Tennessee Division of Archaeology (TDOA) site file database for all intersecting archaeological sites with recorded Mississippian components. We then conducted a records review for all 327 identified sites, including published and unpublished archaeological and antiquarian works, academic theses and dissertations, the “gray literature” of cultural resource management reports, and archival data housed in the TDOA site file record. This research was done to examine the overall character of identified sites, how each was determined to have a Mississippian component, and the types of temporally or culturally diagnostic artifacts and features present. The results of this search were used as a test for the shapefile via comparison with the archaeological traits that contribute to existing definitions of the MCR.

Following Beahm (2013), the western extent of our polygon is situated below Dixon Creek at CRM 285.15. To the east and south, our research did not identify any site data in the areas eliminated by Smith and Moore (2018) that would lead to exclusion of the eight Mississippian sites recorded between Camp Creek and the Red River confluence, or of the three sites in the upper reaches of Stones River. Our polygon therefore conforms to earlier descriptions (Miller and Smith 2009; Smith and Moore 1996), extending east to the Red River (RM 124.9), and south to include the full extent of the Stones River watershed.

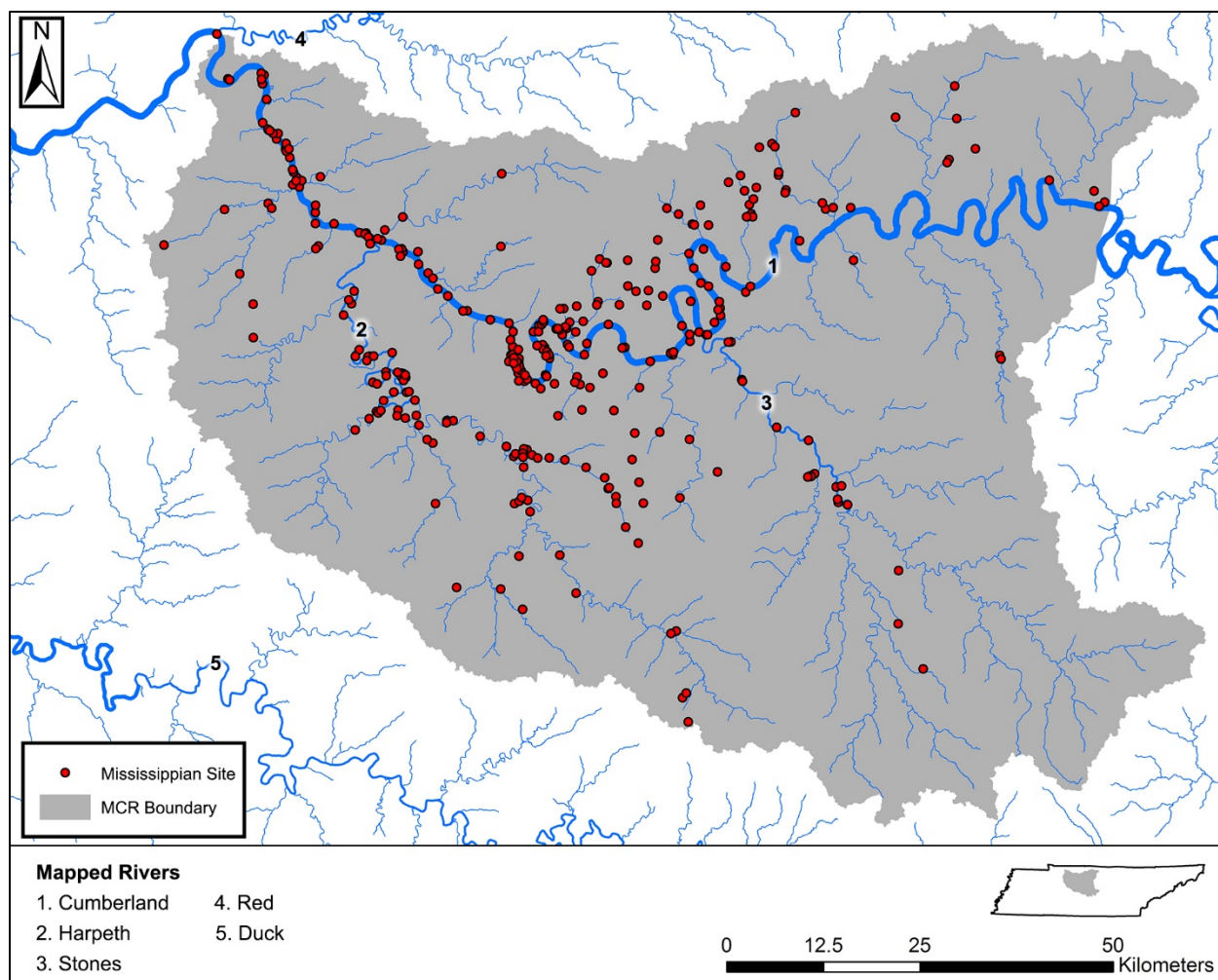


Figure 2. The Middle Cumberland Region of Tennessee and locations of all recorded Mississippian sites therein.

RESULTS AND CONCLUSIONS

The geospatially-referenced polygon for the MCR resulting from this effort encompasses 2,263,321 acres of north-central Tennessee (Figure 2). This area includes the watershed of the Cumberland River and its tributaries, from below Dixon Creek in Smith County (CRM 284.3) downstream to the Red River confluence in Montgomery County (CRM 124.9). Along this route, the Cumberland is fed by the Harpeth and Stones Rivers, as well as by waterways including Round Lick Creek, Bledsoe Creek, Camp Creek, Drakes Creek, Mansker Creek, Mill Creek, Whites Creek, Sycamore Creek, and numerous small named and unnamed blue-line streams. The final shapefile was published to the open scientific data platform figshare.com on December 15, 2020, and may be downloaded at <https://dx.doi.org/10.6084/m9.figshare.13379816> under Creative Commons license Attribution 4.0 International (CC BY 4.0) (Eckhardt and Deter-Wolf 2020).

The MCR references a distinct combination of regional Mississippian period archaeological traits occurring within the Cumberland River watershed of north-central Tennessee over a period of at least 500 years. While various aspects of the MCR have been investigated to date, maps of the region have been inconsistent, and the geospatial extent of the MCR has not previously been presented at a modern, GIS-based level. The effort described

here does not seek to interrogate the archaeological concept of the MCR, temporal considerations regarding site or artifact distributions, or to explore how hypothesized commonalities of artifact types and/or site histories within watersheds may converge or diverge with the lived experiences of indigenous societies. Instead, we rely on established archaeological definitions to visualize the first open access, georeferenced shapefile of the MCR, and thereby provide a reference for future researchers undertaking both site-specific studies and regional analyses.

As described by Smith and Moore (2018:172), “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.’” Nevertheless, the shapefile presented here is not the final word on mapping of the MCR. Specific data is sparse for many Mississippian sites within and surrounding the region due to survey and recovery biases, natural and anthropogenic site destruction, limits imposed on professional and avocational salvage efforts, and the restricted corridors of cultural resources management studies. According to the TDOA site file database, fewer than 16 percent of Mississippian sites within the MCR have been subject to formal testing or data recovery excavations.

Future research including new excavations, geophysical investigations at previously recorded sites, documentation of materials in private collections, geospatial and iconographic analyses, and studies of artifact assemblages from areas including the Red River and Caney Fork watersheds (Smith and Moore 2018) are all certain to further inform the archaeological concept of the MCR and likely reshape the regional limits. As that process takes place, the shapefile presented here and hosted as a dataset on figshare.com may be updated by the authors using the version control capabilities of that site. The CC by 4.0 license also allows researchers to adapt and update this work as their data reveals new patterns in the regional culture area.

WORKS CITED

Bandel, Jessica A.

2012 Cold Spring Farm: A Place Over Time. MA thesis, Department of History, Middle Tennessee State University, Murfreesboro.

Beahm, Emily L.

2013 Mississippian Polities in the Middle Cumberland Region of Tennessee. PhD dissertation, Department of Anthropology, University of Georgia, Athens.

Beahm, Emily L. and Kevin E. Smith

2012 Mississippian Ceramics and Settlement Complexity: Insights from the Beasley Mounds (40SM43), Smith County, Tennessee. *Tennessee Archaeology* 6(1):149-163.

Berryman, Hugh E.

1984 The Averbuch Skeletal Series: A Study of Biological and Social Stress at a Late Mississippian Period Site from Middle Tennessee. In *Averbuch: A Mississippian Manifestation in the Nashville Basin*, edited by Walter E. Klippel and William M. Bass, pp. 5.1- 5.133. Department of Anthropology, University of Tennessee, Knoxville. Submitted to the National Park Service, Atlanta, GA.

Broster, John B.

1988 Burial Patterns for the Mississippian Period in Middle Tennessee. *Tennessee Anthropologist* 8(1):1-15

Brown, Ian W.

1981 A Study of Stone Box Graves in Eastern North America. *Tennessee Anthropologist* 6:1-26.

Brown, Tracy C.

1974 The Stone Box Burial Mode of the Middle Cumberland Culture. *Central States Archaeological Journal* 21(2): 86-91.

Clinton, Jennifer M. and Tanya M. Peres

2011 Pests in the Garden: Testing the Garden-Hunting Model at the Rutherford-Kizer Site, Sumner County, Tennessee. *Tennessee Archaeology* 5(2):131-141.

Cobb, Charles R., Anthony M. Krus, and Dawnie W. Steadman

2015 Bayesian Modeling of the Occupation Span of the Averbuch Site in the Middle Cumberland Drainage, Tennessee. *Southeastern Archaeology* 32(1):46-56.

Cobb, Charles R. and Dawnie W. Steadman

2012. Pre-Columbian Warfare and Indecorous Images in Southeastern North America. In *The Ethics of Anthropology and Amerind Research: Reporting on Environmental Degradation and Warfare*, edited by Richard J. Chancon and Rubén G. Mendoza, pp. 37-50. Springer, New York.

Cuadra, Catrina

2019 A Proliferation of Chiefdoms: A Geospatial Analysis of the Middle Cumberland Region of Tennessee. MA Thesis, University of Florida, Gainesville.

Deter-Wolf, Aaron and Tanya M. Peres

2019 Introduction. In *The Cumberland River Archaic of Middle Tennessee*, edited by Tanya M. Peres and Aaron Deter-Wolf, pp. 1-14. University Press of Florida, Gainesville.

Dowd, John T.

2008 The Cumberland Stone-Box Burials of Middle Tennessee. *Tennessee Archaeology* 3:163-180.

Eckhardt, Sarah L. and A. Deter-Wolf

2020 The Middle Cumberland Region [ArcGIS shapefile]. Figshare.com, <https://dx.doi.org/10.6084/m9.figshare.13379816>.

Eisenberg, Leslie E.

1986 Adaptation in a "Marginal" Mississippian Population from Middle Tennessee: Biocultural Insights from Paleopathology. PhD dissertation, Department of Anthropology, New York University, New York.

1991 Interpreting Measures of Community Health during the Late Prehistoric Period in Middle Tennessee: A Biocultural Approach. In *Health in Past Societies: Biocultural Interpretations of Human Skeletal Remains in Archaeological Contexts*, edited by H. Bush and M. Zvelebil, pp. 115-127. BAR International Series 567, Tempus Reparatum, Oxford.

Ferguson, Robert B.

1972 Arnold Village Site Excavations of 1965-1966. In *The Middle Cumberland Culture*, edited by Robert B. Ferguson, pp. 2-49. Vanderbilt University Publications in Anthropology No. 3, Nashville

Fojas, Christina L.

2021 Abandonment of the Middle Cumberland Region of Tennessee During the Mississippian Period: Temporal and Sex Differences in Survivorship. *American Journal of Biological Anthropology* 177(3):425–438.

Haywood, John

1823 *The Natural and Aboriginal History of Tennessee up to the First Settlements Therein by the White People in the Year 1768*. George Wilson, Nashville.

Jones, Joseph

1876 *Explorations of the Aboriginal Remains in Tennessee*. Smithsonian Contributions to Knowledge No. 259. Smithsonian Institution, Washington, D. C.

Jones, J. Scott

2019 Interpretation of the Structure and Variation of Middle Cumberland Mississippian Stone-Box Cemeteries. *Tennessee Archaeology* 9(2):89-102.

Kelso, Rebecca S.

2018 Mississippian Subadults from the Middle Cumberland and Eastern Regions of Tennessee: Biological Indicators of Population Interaction. *American Journal of Physical Anthropology* 166(20):417-432.

Krus, Anthony M., and Charles R. Cobb

2018 The Mississippian Fin de Siècle in the Middle Cumberland Region of Tennessee. *American Antiquity* 83:302-319.

Mathena, Sarah

2013 Developing a Multistage Model for Treponemal Disease Susceptibility. MA thesis, Department of Anthropology and Middle Eastern Cultures, Mississippi State University, Starkville.

Maxwell, Ashley B.

2011 Biomechanical Stress: A Comparative Analysis of Sexual Dimorphism in Prehistoric Tennessee Populations. MA thesis, Department of Anthropology, North Carolina State University.

Moore, Michael C.

2005 *The Brentwood Library Site: A Mississippian Town on the Little Harpeth River, Williamson County, Tennessee*. Report of Investigations No. 15. Tennessee Department of Environment and Conservation, Division of Archaeology, Nashville.

Moore, Michael C., Emanuel Breitburg, Kevin E. Smith, and Mary Beth Trubitt
2006 One Hundred Years of Archaeology at Gordontown: A Fortified Mississippian Town in Middle Tennessee. *Southeastern Archaeology* 25(1): 89- 109.

Moore, Michael C., and Emanuel Breitburg
1998 *Gordontown: Salvage Archaeology at a Mississippian Town in Davidson County, Tennessee*. Research Series No. 11. Tennessee Department of Environment and Conservation, Division of Archaeology, Nashville.

Moore, Michael C., and Kevin E. Smith
2009 *Archaeological Expeditions of the Peabody Museum in Middle Tennessee, 1877-1884*. Tennessee Department of Environment and Conservation, Division of Archaeology Research Series No. 16, revised 2016:
http://www.tennessee.gov/assets/entities/environment/attachments/arch_rs16_peabody_museum_2009.pdf

2016 *Archaeological Excavations at the Rutherford-Kizer Site: A Mississippian Mound Center in Sumner County, Tennessee*. Research Series No. 13, Tennessee Department of Environment and Conservation, Division of Archaeology, Nashville. Revised digital edition edited by Aaron Deter-Wolf and Michael C. Moore:
https://www.tn.gov/content/dam/tn/environment/archaeology/documents/researchseries/arch_rs13_rutherford_kizer_2016.pdf

Moore, Michael C., Kevin E. Smith, Aaron Deter-Wolf, and Emily L. Beahm
2014 Distribution and Context of Worked Crystalline Artifacts from the Middle Cumberland Region of Tennessee. *Southeastern Archaeology* 33(1):25- 41.

Myer, William E.
1923 Stone Age Man in the Middle South. Unpublished manuscript on file, Tennessee Division of Archaeology, Nashville.

1928 Two Prehistoric Villages in Middle Tennessee. *Forty-First Annual Report of the Bureau of American Ethnology, 1919-1924*, pp. 485-614. Smithsonian Institution, Washington, D.C.

Peres, Tanya M.
2010 Zooarchaeological Remains from the 1998 Fewkes Site Excavations, Williamson County, Tennessee. *Tennessee Archaeology* 5(1):100-125.

Phillips, Kathryn F.
2018 An Assessment of the American Civil War (1861-1865) Period Archaeological Deposits at the Buchanan House Site in Bells Bend, Nashville, Tennessee. MA Thesis, Department of Anthropology and Middle Eastern Cultures, Mississippi State University, Starkville.

- Robertson, Robert S.
1878 *Antiquities of Nashville, Tennessee*. Annual Report of the Board of Regents, Smithsonian Institution, 1877. U.S. Government Printing Office, Washington, D.C.
- Sharp, Robert V.
2019 Our Lady of the Cumberland: Styles, Distribution, and Community. *Tennessee Archaeology* 10(10):7-37.
- Sharp, Robert V., Kevin E. Smith, and David H. Dye
2020 Cahokians and the Circulation of Ritual Goods in the Middle Cumberland Region. In *Cahokia in Context: Hegemony and Diaspora*, edited by Charles H. McNutt and Ryan M. Parish, pp. 319-351. University Press of Florida, Gainesville.
- Smith, Kevin E.
1992 The Middle Cumberland Region: Mississippian Archaeology in North Central Tennessee. PhD dissertation, Department of Anthropology, Vanderbilt University, Nashville.
- 1994 Potash from Pyramids: Reconstructing DeGraffenreid (40WM4)—A Mississippian Mound-Complex in Williamson County, Tennessee. *Tennessee Anthropologist* 19(2):91–114.
- Smith, Kevin E., Dan Brock and Christopher Hogan.
2004 Interior Incised Plates and Bowls from the Nashville Basin of Tennessee. *Tennessee Archaeology* 1(1):49-57.
- Smith, Kevin E. and James V. Miller
2009 *Speaking with the Ancestors: Mississippian Stone Statuary of the Tennessee-Cumberland Region*. The University of Alabama Press, Tuscaloosa
- Smith, Kevin E. and Michael C. Moore
1996 Mississippian Settlement and Community Patterns on the Cumberland River, Tennessee: Recent Investigations of Small Mississippian Settlements. In *Proceedings of the 14th Annual Midsouth Archaeological Conference*, edited by Richard Walling, Camille Wharey, and Camille Stanley, pp. 49-68. Special Publications No. 1. Panamerican Consultants Inc., Memphis
- 2012 Changing Interpretations of Sandbar Village (40DV36): Mississippian Hamlet, Village, or Mound Center? *Tennessee Archaeology* 6(1-2):105-138.
- 2018 Middle Cumberland Mississippian Archaeology: Past, Present, and Future Directions. *Tennessee Archaeology* 9(2):170-200.
- Smith, Maria O. and Tracy K. Betsinger
2019 Dental Caries as an Archaeological Problem-Solving Tool: Reconstructing Subsistence Patterns in Late Prehistoric West-Central Tennessee. *Dental Anthropology* 32(2):51-66.

Spears, W. Steven, Michael C. Moore, and Kevin E. Smith
2008 Evidence for Early Mississippian Settlement of the Nashville Basin: Archaeological Evidence at the Spencer Site (40DV191). *Tennessee Archaeology* 3(1):2-24.

Thomas, Cyrus
1894 Report of the Mound Explorations of the Bureau of Ethnology. *Twelfth Annual Report of the Bureau of Ethnology to the Secretary of the Smithsonian Institution, 1890-1891*, pp. 17-742. Washington D.C

Thruston, Gates P.
1888 Ancient Society in Tennessee. *The Magazine of American History* 19(5):374-400

1890 *Antiquities of Tennessee and the Adjacent States and the State of Aboriginal Society in the Scale of Civilization Represented by Them*. Robert Clarke & Co., Cincinnati.

United States Geological Survey (USGS)
2020 Watershed Boundary Dataset. National Hydrography Products, United States Geological Service, United States government Department of the Interior, Washington D.C.
https://www.usgs.gov/core-science-systems/ngp/national-hydrography/watershed-boundary-dataset?qt-science_support_page_related_con=4#qt-science_support_page_related_con.
Accessed December 9, 2020.

US Army Corps of Engineers
2017 Lake Barkley Master Plan. Nashville District. Electronic document,
<https://usace.contentdm.oclc.org/digital/collection/p16021coll7/id/6134/rec/2>. Accessed July 1, 2022.

Vidoli, Giovanna M.
2012 Shifting Borders: Population Movement and the Geopolitical Landscape of the Middle Cumberland Region during the Mississippian period. PhD dissertation, Department of Anthropology, Binghamton University, Binghamton.

Vidoli, Giovanna M. and Heather Worne
2018 Relationships and Trauma: Lived Perspectives at Averbuch. *Tennessee Archaeology* 9(2):156-169.

Wamsley, Brooke A.
2018 Mortuary Patterns In West-Central Tennessee: Contextualizing Historic Field Data From Nine Mississippian Period Sites. MS Thesis, Department of Sociology and Anthropology, Illinois State University.

Worne, Heather
2017a Inferring Disability and Care Provision in Late Prehistoric Tennessee. In: *New Developments in the Bioarchaeology of Care: Further Case Studies and Expanded Theory*, edited by Lorna Tilley and Alecia A. Schrenk, pp. 85-100. Springer, New York.

2017b Temporal Trends in Violence during the Mississippian Period in the Middle Cumberland Region of Tennessee. *Southeastern Archaeology* 36(3):171- 182.

Worne, Heather, Charles R. Cobb, Giovanna M. Vidoli, and Dawnie Wolfe Steadman
2012 The Space of War: Connecting Geophysical Landscapes with Skeletal Evidence of Warfare-Related Trauma. In *The Bioarchaeology of Violence*, edited by Debra L. Martin, Ryan P. Harrod, and Ventura R. Pérez, pp. 141-159. University Press of Florida, Gainesville.