

**CURRENT RESEARCH IN TENNESSEE ARCHAEOLOGY
18TH ANNUAL MEETING**

Friday, February 3 and Saturday, February 4, 2006
Ed Jones Auditorium, Ellington Agricultural Center

FRIDAY, FEBRUARY 3

- 2:00 Governor's Archaeological Advisory Council meeting.
- 3:30 Tennessee Council for Professional Archaeology meeting.
- 5:00 Reception at Ed Jones Auditorium following TCPA meeting.

SATURDAY, FEBRUARY 4

- 8:25 **Welcome and Opening Remarks**
- 8:30 **A Survey of World War II Military Sites in Tennessee.**
Benjamin C. Nance and Samuel D. Smith (*Tennessee Division of Archaeology*)
- 8:45 **Castalian Springs (40SU14): A Mississippian Chiefdom in the Nashville Basin of Tennessee.**
Emily L. Beahm and Kevin E. Smith (*Middle Tennessee State University*)
- 9:00 **Recent Archaeology at the Hermitage.**
Daniel Brock (*The Hermitage*)
- 9:15 **Wood's Mine: Barite Mining in Monroe County, Tennessee.**
Paul G. Avery (*MACTEC Engineering and Consulting*)
- 9:30 **Archaeological Investigations at Chucalissa (40SY1): 1940-1955.**
David H. Dye (*University of Memphis*) and Ronald C. Brister (*Memphis Pink Palace Museum*)
- 9:45 **Applied Archaeology at the Hermitage Springs Site (40DV551): A Middle Archaic through Early Woodland Aggregation Site in the Cumberland River Valley.**
Daniel S. Allen IV (*Cumberland Research Group, Inc.*)
- 10:00 **What's Legal and What's Not: These Artifacts are Mine, I Can Do What I Want With Them.**
Nick Fielder (*Tennessee Division of Archaeology*)
- BREAK 10:15-10:30
- 10:30 **Evolving Landscapes at the Samuel Doak Plantation, Greeneville, Tennessee.**
Nicholas Honerkamp (*University of Tennessee, Chattanooga*)
- 10:45 **The Archaeology of Linville Cave (40SL24), Sullivan County, Tennessee.**
Jay D. Franklin (*East Tennessee State University*) and S. D. Dean (*Kingsport, Tennessee*)
- 11:00 **Two Cemeteries and a Killed Building: Three Recent TRC Projects.**
Larry McKee (*TRC, Inc.*)
- 11:15 **Averbuch Revisited: A New Look at Old Collections.**
Michael C. Moore (*Tennessee Division of Archaeology*) and Kevin E. Smith (*Middle Tennessee State University*)
- 11:30 **A Zooarchaeological Analysis of Selected Contexts from the Fewkes Site, (40WM1), Williamson County, Tennessee.**
Tanya M. Peres (*Middle Tennessee State University*)

11:45 **Five New Prehistoric Cave Art Sites in Tennessee.**
Jan F. Simek, Alan Cressler, Sarah A. Blankenship, Joseph C. Douglas, Amy Wallace, Ken Oeser, and Annette Oeser (*University of Tennessee, Knoxville*)

LUNCH 12:00-1:00

1:00 **Shiloh Indian Mounds National Historic Landmark: Research Results of the 1999-2004 Field Program at Mound A.**
David G. Anderson (*University of Tennessee, Knoxville*), John E. Cornelison, Jr. (*National Park Service*), and Sarah C. Sherwood (*UT Archaeological Research Laboratory*)

1:15 **A Geologic Lithic Source Survey of the Lower Buffalo and Duck Rivers.**
Kristine Lilja-King (*University of Memphis*), John Broster (*Tennessee Division of Archaeology*), and Mark Norton (*Tennessee Division of Archaeology*).

1:30 **John Boats and Raincoats: Archaeological Investigations in the Tennessee River System.**
Matthew D. Gage and Nicholas P. Herrmann (*UT Archaeological Research Laboratory*)

1:45 **The Dendrochronology of a Nineteenth Century Saltpeter Mining Site: Cagle Saltpetre Cave, Van Buren County, Tennessee.**
Sarah A. Blankenship, Henri D. Grissino-Mayer, and Georgina Wight (*University of Tennessee, Knoxville*)

2:00 **Exploratory GIS Analysis of Prehistoric Floodplain Land Use of the Lower Tennessee Drainage System.**
Andrew M. Mickelson (*University of Memphis*)

2:15 **ARPA Alert Versus ARPA Lite: Site Protection at Big South Fork National River and Recreation Area.**
Tom Des Jean (*BISO, National Park Service*)

BREAK 2:30-2:45

2:45 **The Radiocarbon Dating Laboratory of the University of Tennessee Center for Archaeometry and Geochronology**
Daniel C. Weinand (*University of Tennessee, Knoxville*)

3:00 **New Radiocarbon Dates on Human Coprolites from Big Bone Cave (40VB103): Examining Temporal and Spatial Trends of Early Agricultural Behavior in the Midsouth.**
Meta G. Pike and Scott C. Meeks (*University of Tennessee, Knoxville*)

3:15 **Unidentified Resources: Prehistoric Quarries in Fort Campbell (KY-TN) and their Implications.**
Richard D. Davis (*Fort Campbell*), Richard V. Williamson (*Fort Campbell*), Christopher A. Bergman (*BHE Environmental*), Philip C. LaPorta (*LaPorta and Associates*), Scott Minchak (*LaPorta and Associates*), and Margaret C. Brewer (*LaPorta and Associates*).

3:30 **Prehistoric Quarries in Fort Campbell (KY-TN): Discovery, Types, Definitions, and Settings.**
Philip C. LaPorta, Scott Minchak, and Margaret C. Brewer (*LaPorta and Associates*)

3:45 **Preliminary Results from the Fort Campbell Archaeological Resources Verification Project.**
Teresa L. Brown, E. Nicole Mills, and Jennifer R. Boudreaux (*Fort Campbell*)

ABSTRACTS OF PRESENTATIONS

Allen, Daniel S., IV (*Cumberland Research Group, Inc*)

APPLIED ARCHAEOLOGY AT THE HERMITAGE SPRINGS SITE (40DV551); A MIDDLE ARCHAIC THROUGH EARLY WOODLAND AGGREGATION SITE IN THE CUMBERLAND RIVER VALLEY.

Toward the end of the Early Archaic cultural period in southeastern North America the climate became warmer and dryer than today. Termed the Altithermal, this climatic change marks the beginning of the Middle Archaic period (ca. 7500 - 5000 B.P.). It is currently believed that the changing climate of southeastern North America forced hunter/gatherers in the early stages of horticulture to adapt to the climate by shifting between upland hunting camps on the edges of river valleys and floodplain camps during drought and the heat of summer and fall. This type of settlement pattern is thought to have resulted in permanent aggregation sites, especially on upland formations overlooking the confluence of spring branches with productive river valleys, and carefully delineated group territories expressed archaeologically by prehistoric cultural sites including corporate cemeteries. The Hermitage Springs site (40DV551) is a prehistoric aggregation site discovered in 2001 during grading for residential development in northeastern Davidson County. Archaeological relocation of the human remains, sampling of the archaeological features, and salvage of archaeological data commenced in mid-October 2004 and continues to date. Archaic and Woodland period people intensively harvested fish, shellfish, gastropods, and turtles, and subsisted largely by hunting deer, turkey, bear and smaller mammals, also relying on acorns, nuts, and a variety of other plant resources. Preliminary analysis suggests the site represents an extensive corporate aggregation site and cemetery used from the Middle Archaic through Early Woodland periods. The project is on-going in the field and this presentation is designed to provide up-to-date highlights of the project.

Anderson, David G. (*University of Tennessee, Knoxville*), **John E. Cornelison, Jr.** (*National Park Service*), and **Sarah C. Sherwood** (*UT Archaeological Research Laboratory*)

SHILOH INDIAN MOUNDS NATIONAL HISTORIC LANDMARK: RESEARCH RESULTS OF THE 1999-2004 FIELD PROGRAM AT MOUND A.

Multidisciplinary research associated with excavations into threatened portions of Mound A at Shiloh Indian Mounds National Historic Landmark have revealed a wealth of information about the chronology, natural environment, associated material culture and architecture, and appearance of the mound when it was under construction and in use. Mound A was a complicated and symbolically charged structure, whose upper stages were built between ca. A.D. 1100 and 1300. While the focus of local populations, occasional contact with societies at great distances occurred. The ongoing support of the Chickasaw Nation and the National Park Service proved critical to the success of the project.

Avery, Paul G. (*MACTEC Engineering and Consulting*)

WOOD'S MINE: BARITE MINING IN MONROE COUNTY, TENNESSEE. Barite is a dense white mineral with several industrial uses. Mining activities aimed at the extraction of barite ore began as early as the 1870s in east Tennessee, with the center of this industry located near Sweetwater in Monroe County, Tennessee. The remains of Wood's Mine (40MR700) were recorded during a survey for the Tennessee Department of Transportation. Historically known as the Ballard Mine, the site represents one of the earliest barite mines in the county. This paper examines the history of barite mining in Monroe County with particular emphasis on Wood's Mine and its role in the industry.

Beahm, Emily L. and Kevin E. Smith (*Middle Tennessee State University*)

CASTALIAN SPRINGS (40SU14): A MISSISSIPPIAN CHIEFDOM IN THE NASHVILLE BASIN OF TENNESSEE.

Artifacts from Castalian Springs (40SU14) have played a prominent role in discussions of the chronology of Mississippian shell gorgets and the Southeastern Ceremonial Complex. This extensive mound site was investigated by Ralph Earl in 1820 and William Myer in 1891, 1893 and 1916-1917. While these investigations produced some of the most widely illustrated Mississippian artifacts from Tennessee, contextual information has generally been limited to two brief articles by Myer. Using Myer's unpublished fieldnotes and correspondence and the results of summer 2005 test excavations, the authors provide a more detailed interpretation and description of this chiefdom center. (see Kevin E. Smith)

Bergman, Christopher A. (see Richard D. Davis)

Blankenship, Sarah A., Henri D. Grissino-Mayer, and Georgina Wight (*University of Tennessee, Knoxville*)

THE DENDROARCHAEOLOGY OF A NINETEENTH CENTURY SALTPETER MINING SITE: CAGLE SALTPETRE CAVE, VAN BUREN COUNTY, TENNESSEE. During the historic mining episodes at Cagle Saltpetre Cave, wooden leaching vats needed for the lixiviation of saltpeter, or calcium nitrate, from mined sediment

were constructed and used within the cave. When mining operations ceased, these artifacts were abandoned and preserved *in situ*, some remaining virtually intact. Their remarkable preservation enabled tree-ring dating of timbers associated with these artifacts. Tree rings from oak planks used in the construction of the leaching vats were measured to 0.001mm precision on a Velmex measuring system then entered into COFECHA software to evaluate cross-dating and measurement accuracy. The measurement series were then compared to both the Norris Dam State Park and Piney Creek Pocket Wilderness white oak reference chronologies, spanning from 1633 to 1982, contained in the International Tree-Ring Data Bank. The results of our analyses indicate that saltpeter was mined and processed at the site during separate episodes throughout the nineteenth century. Additionally, saltpeter-processing technology changed throughout the course of the mining operations.

Blankenship, Sarah A. (see Jan F. Simek)

Boudreaux, Jennifer R. (see Teresa L. Brown)

Brewer, Margaret C. (see Richard D. Davis)

Brewer, Margaret C. (see Philip C. LaPorta)

Brister, Ronald C. (see David H. Dye)

Brock, Daniel (*The Hermitage*)

RECENT ARCHAEOLOGY AT THE HERMITAGE. The Hermitage, Home of President Andrew Jackson, celebrates its 36th year of archaeological investigations. Over the years the archaeology program, with the support of the Ladies' Hermitage Association, has helped to interpret the history of the property for research and educational purposes. Continuing with that tradition, investigations were resumed at the South Cabin site located adjacent to the newly restored First Hermitage Cabins. This slave dwelling lacks any historical reference and many questions remain unanswered about the structure, its construction, and the inhabitants. The paper presented reports on the 2004-2005 field seasons of archaeological investigations at the site as well as some interesting finds.

Broster, John (see Kristine Lilja-King)

Brown, Teresa L., E. Nicole Mills, and Jennifer R. Boudreaux (*Fort Campbell*)

PRELIMINARY RESULTS FROM THE FORT CAMPBELL ARCHAEOLOGICAL RESOURCES VERIFICATION PROJECT. In 2004, the Fort Campbell Cultural Resources Management Program implemented a site verification project to rectify discrepancies discovered within the program's archaeological site data files. Unlike most archaeological investigations, this project focused on relocating and documenting previously identified sites, and in the process, exposed a need to improve the overall methodology of recording sites for preservation and future research. This paper will give a brief overview of the project, and discuss: (1) the discrepancies encountered which initiated the project; (2) the observed problems associated with conducting traditional pedestrian surveys; (3) how the site detection survey and/or eligibility evaluation methods can be modified to eliminate most of these problems, and (4) how land managing agencies may identify and resolve these problems with minimal staff and resources.

Cornelison, John E., Jr. (see David G. Anderson)

Cressler, Alan (see Jan F. Simek)

Davis, Richard D. (*Fort Campbell*), **Richard V. Williamson** (*Fort Campbell*), **Christopher A. Bergman** (*BHE Environmental*), **Philip C. LaPorta** (*LaPorta and Associates*), **Scott Minchak** (*LaPorta and Associates*), and **Margaret C. Brewer** (*LaPorta and Associates*)

UNIDENTIFIED RESOURCES: PREHISTORIC QUARRIES IN FORT CAMPBELL (KY-TN) AND THEIR IMPLICATIONS. Over many years and through many different projects, no prehistoric quarries were identified at Fort Campbell. On reflection, this is a puzzling situation since the area is rife with high-gage cherts. Once attention was focused on the topic, quarries were found at many locations where the chert resources were accessible. Implications for the practice of archaeology in Tennessee are twofold: (1) Surveys using usual and customary methods have missed these important sites. There is a high probability that a majority of prehistoric quarry sites were unrecognized in previous survey work throughout FTC and the surrounding area. (2) Surveys in chert-rich areas throughout middle Tennessee should incorporate examination of likely areas for the characteristic quarries, factories, workshops, and their associated tailings. Aside from the much-needed investigation and

treatment of prehistoric quarries, the resource also has the potential of linking problematic lithic scatters to quarries, providing researchers with the “cradle to grave” data as well as providing investigators the ability to make confident anthropological interpretations and hypotheses.

Dean, S. D. (see Jay D. Franklin)

Des Jean, Tom (*BISO, National Park Service*)

ARPA ALERT VERSUS ARPA LITE: SITE PROTECTION AT BIG SOUTH FORK NATIONAL RIVER AND RECREATION AREA. On Sunday August 22, 2004, National Park Service Rangers at Big South Fork National River and Recreation Area (BSF) arrested two individuals caught digging for prehistoric Native American artifacts from one of the many rockshelters located on the National Area. This presentation describes the process that National Park Service staff and the United States Attorney's Office followed to bring about a successful prosecution of these individuals under the Archaeological Resources Protection Act (ARPA).

Douglas, Joseph C. (see Jan F. Simek)

Dye, David H. (*University of Memphis*) and **Ronald C. Brister** (*Memphis Pink Palace Museum*)

ARCHAEOLOGICAL INVESTIGATIONS AT CHUCALISSA (40SY1): 1940-1955. Four phases of archaeological field investigations were conducted at Chucalissa during the fifteen-year period between 1940 and 1955. In the spring of 1940 George Lidberg and Charles Nash, under the supervision of T.M.N. Lewis, began initial exploratory excavations to determine the depth, extent, and nature of the site. A year later, members of the Lower Mississippi Survey briefly visited Chucalissa to obtain a ceramic sample. In 1952 members of the Memphis Geological and Archaeological Society resumed excavations under the leadership of Kenneth Beaudoin. In 1955 Charles Nash was hired as the director of Chucalissa and began extensive excavations that resumed the investigation program he and Lidberg initiated fifteen years earlier. In this paper we discuss the various field projects at Chucalissa and their relevance to current research at the site.

Fielder, Nick (*Tennessee Division of Archaeology*)

WHAT'S LEGAL AND WHAT'S NOT: THESE ARTIFACTS ARE MINE, I CAN DO WHAT I WANT WITH THEM. This presentation is an illustrated review of the legal aspects of artifact auctions, buying, selling and owning human remains, and grave desecration in Tennessee.

Franklin, Jay D. (*East Tennessee State University*) and **S. D. Dean** (*Kingsport, Tennessee*)

THE ARCHAEOLOGY OF LINVILLE CAVE (40SL24), SULLIVAN COUNTY, TENNESSEE. Linville Cave is more popularly known in Upper East Tennessee as Appalachian Caverns. As part of a commercial venture, S. D. Dean conducted salvage excavations at Linville Cave in the spring of 1991. While these excavations were performed in a scientific and controlled manner, funds were not available for complete analyses or radiocarbon dates. In this paper, we present a detailed overview of the archaeological record of Linville Cave and a new radiocarbon date.

Gage, Matthew D. and Nicholas P. Herrmann (*UT Archaeological Research Laboratory*)

JOHN BOATS AND RAINCOATS: ARCHAEOLOGICAL INVESTIGATIONS IN THE TENNESSEE RIVER SYSTEM. In 2004, the Archaeological Research Laboratory (ARL) at the University of Tennessee Department of Anthropology began the Reservoir Operation Compliance (ROC) Study of eleven reservoirs for the Tennessee Valley Authority (TVA). The five-year project is designed to not only identify undocumented cultural resources and reinvestigate significant archaeological sites, but also to monitor shoreline erosion at these resources. To date, ARL has documented more than 600 individual sites, incorporating them into a relational geodatabase that includes coordinate, photographic, soil, artifact, environmental, and mapping information. This presentation will highlight some significant finds and outline the structure and utility of ARL's database.

Grissino-Mayer, Henri D. (see Sarah A. Blankenship)

Herrmann, Nicholas P. (see Matthew D. Gage)

Honerkamp, Nicholas (*University of Tennessee, Chattanooga*)

EVOLVING LANDSCAPES AT THE SAMUEL DOAK PLANTATION, GREENEVILLE, TENNESSEE. Two UTC summer field schools of archaeological survey and testing at the Samuel W. Doak plantation (40GN257) have resulted in major revisions to the document-based interpretations of the site's antebellum origins and use, thanks to the discovery and excavations of: (1) a cellar associated with a possible early domestic Doak structure, and

(2) the foundations of a student dormitory. Building on these earlier results, the 2005 field session generated almost as many enigmas as sherds relating to these two features. The questions revolve around the discovery of an architectural feature of unknown function near the dorm and human remains in the cellar fill.

LaPorta, Philip C., Scott Minchak, and Margaret C. Brewer (*LaPorta and Associates*)

PREHISTORIC QUARRIES IN FORT CAMPBELL (KY-TN): DISCOVERY, TYPES, DEFINITIONS, AND SETTINGS. Fort Campbell (KY-TN) is located in the Western Highland Rim of the Appalachian Plateau physiographic province. Mississippian-age chert-bearing limestone and siltstone units that serve as potential raw material sources underlie the Western Highland Rim. In previous surveys, LaPorta identified twelve different quarry types within the Mississippian-age lithologies and weathered older lithologies. Recent investigations were conducted at three of these quarry types. Two bedrock quarries (FTC-08A-901 and FTC-08A-902) are located on Fletchers Fork, Montgomery County, Tennessee. A *Felsenmeer* (Garner 1973) quarry, or lag concentration of chert in a saprolitized or laterized soil, is located at site 15Tr269 on Skinner Creek in Trigg County, Kentucky. Combined techniques of mapping, detailed photo-documentation, excavation, and backhoe trenching were used to elucidate the anatomy of the quarries and the geomorphological processes associated with each of the LaPorta quarry types.

LaPorta, Philip C. (see Richard D. Davis)

Lilja-King, Kristine (*University of Memphis*), **John Broster** (*Tennessee Division of Archaeology*), and **Mark Norton** (*Tennessee Division of Archaeology*)

A GEOLOGIC LITHIC SOURCE SURVEY OF THE LOWER BUFFALO AND DUCK RIVERS. Over 95% of the lithic assemblage at the Carson-Conn-Short site (40BN190) is Waverly or Buffalo River (bulls-eye) chert. The limited number of artifacts deemed “non-local” derive from a variety of resources including Ft. Payne, St. Genevieve, Horse Mountain agate, reddish chalcedony, and brownish chalcedony. The location and analysis of possible non-local lithic sources may suggest and further define range mobility and therefore, relative sedentism of Paleoindian (Clovis) hunter-gatherers in the Tennessee River Valley. Local lithic raw material sources in the Lower Duck and Lower Buffalo basins are also defined.

McKee, Larry (*TRC, Inc.*)

TWO CEMETERIES AND A KILLED BUILDING: THREE RECENT TRC PROJECTS. In 2005 the Nashville office of TRC excavated burials at two separate nineteenth century cemeteries in Middle Tennessee and also participated in a salvage operation at Evergreen Place (the Jim Reeves Museum) in northeast Nashville. Work at one of the cemeteries, on the outskirts of Franklin, was done under the sponsorship of a descendent who wanted to move her ancestors and their large stone monument to a church graveyard. The second cemetery, near Alamaville in Rutherford County, was a family burial ground on the site of a new school complex. The salvage operation at Evergreen Place was carried out as part of a settlement over a disputed demolition permit issued to tear down what was probably Davidson County’s oldest standing building. Not only were all three interesting archaeological exercises, but these also illustrate the wide range of clients seeking help from our profession.

Meeks, Scott C. (see Meta G. Pike)

Mickelson, Andrew M. (*University of Memphis*)

EXPLORATORY GIS ANALYSIS OF PREHISTORIC FLOODPLAIN LAND USE OF THE LOWER TENNESSEE DRAINAGE SYSTEM. The presentation will present exceedingly preliminary results of Geographic Information Systems (GIS) analysis of the lower Tennessee River drainage system upstream of the Kentucky Lake. This study includes the Duck and Buffalo Rivers as well. Temporally, the dataset covers the entire prehistoric archaeological record of the region. One goal of this presentation is to demonstrate the benefits of exploratory GIS analysis in developing hypotheses and future research projects regarding questions concerning prehistoric land use.

Mills, E. Nicole (see Teresa L. Brown)

Minchak, Scott (see Richard D. Davis)

Minchak, Scott (see Philip C. LaPorta)

Moore, Michael C. (*Tennessee Division of Archaeology*) and **Kevin E. Smith** (*Middle Tennessee State University*)
AVERBUCH REVISITED: A NEW LOOK AT OLD COLLECTIONS. Over the past 15 years the authors have conducted excavations and extensive research on Mississippian sites across the Middle Cumberland River

valley. Among the products generated from these investigations is a rather comprehensive database of site ceramic assemblages. These ceramic assemblages, in conjunction with an ever-growing number of radiocarbon dates, have provided enlightening views into the intersite relationships within the Middle Cumberland drainage. Our research continues with a recently initiated reexamination of ceramics from the Averbuch site (40DV60). Averbuch is probably best known for the vast number of individuals (887) removed during the 1975-1978 excavations started by the Tennessee Division of Archaeology and concluded by the University of Tennessee. However, the pottery vessels and sherds obtained as a result of these investigations comprise the best documented, yet least known, Mississippian ceramic assemblage from the Middle Cumberland region. This presentation will chart our progress to date, with a focus on the whole vessels obtained from mortuary contexts.

Nance, Benjamin C. and Samuel D. Smith (*Tennessee Division of Archaeology*)

A SURVEY OF WORLD WAR II MILITARY SITES IN TENNESSEE. During World War II there was intense activity on the home front in Tennessee. The Tennessee Division of Archaeology has been conducting a statewide survey of sites related to the military activity in Tennessee during the war. Most of the military activity in Middle Tennessee was related to the training exercises known collectively as the Tennessee Maneuvers. More than 850,000 soldiers participated in the maneuvers from 1941 to 1945, and their presence profoundly affected the local residents. Other types of military facilities in Tennessee were training camps and military air bases. Additionally almost every airfield had War Service Training for pilots. German and Italian prisoners of war were kept in several prison camps across the state, and the state hosted the nation's only barrage balloon training camp. The goal of the Division's project is to identify and record the resources directly related to military activity while there are still living informants who witnessed the events. Privately owned industrial sites that produced war materials were noted but not systematically recorded.

Norton, Mark (see Kristine Lilja-King)

Peres, Tanya M. (*Middle Tennessee State University*)

A ZOOARCHAEOLOGICAL ANALYSIS OF SELECTED CONTEXTS FROM THE FEWKES SITE (40WML). The Fewkes site faunal assemblage, excavated by DuVall and Associates as part of a Phase III data recovery for the Tennessee Department of Transportation, was analyzed and evaluated in light of its potential to provide significant information about Middle Mississippian subsistence practices and environmental conditions of the area around the Fewkes site during the time of occupation. Specific goals of the analysis included: (1) defining the subsistence strategies and practices of the people whom inhabited the site; (2) determining the relationship of the site to the surrounding ecological habitats, and (3) determining the seasonality of the site. Additionally, the Fewkes faunal assemblage was compared to animal exploitation practices as outlined for the Cumberland River drainage model of Mississippian period sites. The results of the analysis of selected contexts will be presented in this paper.

Pike, Meta G. and Scott C. Meeks (*University of Tennessee, Knoxville*)

NEW RADIOCARBON DATES ON HUMAN COPROLITES FROM BIG BONE CAVE (40VB103): EXAMINING TEMPORAL AND SPATIAL TRENDS OF EARLY AGRICULTURAL BEHAVIOR IN THE MIDSOUTH. Nine accelerator mass spectrometry (AMS) dates recently obtained from human paleofecal remains at Big Bone Cave range from 220-320 cal B.C. (2170-2270 cal B.P.), indicating a terminal Early Woodland temporal association. These dates are consistent with a suite of eleven previous radiocarbon dates from Big Bone Cave, which places the primary utilization of the site during the Early Woodland period. Macrobotanical remains from the paleofecal specimens, combined with information from the regional paleoethnobotanical record, are examined with regard to the timing and spread of plant food production in the Midsouth.

Oeser, Annette (see Jan F. Simek)

Oeser, Ken (see Jan F. Simek)

Sherwood, Sarah C. (see David G. Anderson)

Simek, Jan F. Alan Cressler, Joseph C. Douglas, Amy Wallace, Ken Oeser, and Annette Oeser (*University of Tennessee, Knoxville*)

FIVE NEW PREHISTORIC CAVE ART SITES IN TENNESSEE. Over the past twelve months, five new prehistoric cave art sites have been discovered in Tennessee, designated 43rd – 47th Unnamed Caves in our regional nomenclature. These additions bring the total number of art caves known in the Southeast to 52. Three of the caves are owned by the State of Tennessee, 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), although there may be at least one early site among the new discoveries.

Smith, Kevin E. (see Emily L. Beahm)

Smith, Kevin E. (see Michael C. Moore)

Smith, Samuel D. (see Benjamin C. Nance)

Wallace, Amy (see Jan F. Simek)

Weinand, Daniel C. (*University of Tennessee, Knoxville*)

THE RADIOCARBON DATING LABORATORY OF THE UNIVERSITY OF TENNESSEE CENTER FOR ARCHAEOLOGY AND GEOCHRONOLOGY. The radiocarbon laboratory of the University of Tennessee Center for Archaeometry and Geochronology (UTCAG) was established in cooperation with the Illinois State Geological Survey. The laboratory utilizes the Liquid Scintillation Counting (LSC) method for conventional Carbon 14 analysis and is equipped with a benzene synthesis system, a Packard 2200CA low-level scintillation counter, and a Quantulus 1220 ultra low-level scintillation counter. The LSC method allows dating of samples ranging from 150 to 50,000 years old. We have produced accurate dates from dendrochronologically dated wood as well as archaeological charcoal samples from Townsend, Tennessee; however, the laboratory is capable of dating a variety of samples, including charcoal, wood, bone, paleosol, coral, and shell.

Wight, Georgina (see Sarah A. Blankenship)

Williamson, Richard V. (see Richard D. Davis)