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SOUTHEASTERN ARCHAEOLOGICAL CONFERENCE

ABSTRACTS OF THE
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ABSTRACTS

Organizers: Kenneth C. Carstens and Kit W. Wesler (Murray State University)

CURRENT RESEARCH IN KENTUCKY

The successes of large archaeological projects such as the Shell Mound Archaeological Project (SMAP) and the Lower Cumberland Archaeological Project (LCAP) have contributed greatly to the recent resurgence of interest in Kentucky prehistory. These projects should not overshadow other investigations that are also making valuable additions to an archaeological synthesis of the Commonwealth, addressing both the prehistoric and the historic periods. The papers in this symposium discuss recent research efforts in central and western Kentucky. They demonstrate a diversity of interests, ranging from the Archaic to the Historic periods, and also common commitments to establish a detailed culture history of the region, to explore past culture processes, and to involve the public in productive research and resource preservation.

Organizers: Ann S. Cordell (Florida State Museum) and Jeffrey M. Mitchum (University of Florida)

This symposium presents several ways of investigating past human behavior through the analysis of pottery. Certain papers address questions of production (in terms of location and manufacturing technology) and typology. Other papers examine variability in vessel form in order to investigate site and vessel function.

Organizer and Chair: Mary L. Kwas (Tennessee Department of Conservation)

ARCHAEOLOGICAL PARKS: INTEGRATING PRESERVATION, INTERPRETATION, AND RECREATION

With the recent rise of newly developed management alternatives, the development of parks to preserve, protect and interpret archaeological sites has also increased. Management of these sites has been on the federal, state, and local levels, and staff has consisted of a variety of individuals trained in parks management, museology and archaeology. Many of the problems confronting these new parks and their administrators are relatively unique, compared with recreational parks, house museums and grounds, and non-developed archaeological sites. Administrators are confronted with problems of vandalism, lands management, public access and usage, and perhaps most importantly, interpretation and education. Unfortunately literature in the fields of parks management, museology and historic sites interpretation, and archaeology lend only oblique applications to archaeological parks. There is no body of literature that deals expressly with this topic. This symposium seeks to bring together the ideas and problems encountered by individuals dealing with archaeological parks, in order to share this information and begin to develop solutions.

Mark J. Lynott (Midwest Archeology Center)

ARCHAEOLOGICAL INVESTIGATIONS IN THE CURRENT RIVER VALLEY, SOUTHEASTERN MISSOURI

During the last three years the National Park Service has sponsored archaeological research pertaining to the Ozark National Scenic Riverways in southeastern Missouri. This unit of the National Park System is located in the eastern

Ozarks region, and is well known for its large springs, numerous caves, and rugged, heavily forested hills and valleys. From 1979 until 1981, archaeological research in the Ozark National Scenic Riverways was conducted largely by the Midwest Archaeological Center. In 1981, a multi-year cooperative study between the Center for Archaeological Research, Southwest Missouri State University and the National Park Service was initiated. This study is intended to focus on four areas of the archaeological record with the objective of expanding our understanding of human adaptation in the eastern Ozarks region.

The four primary areas of study involve historic archaeological and archival research, documentation and study of private artifact collections, geomorphological study of the Current River Valley, and survey and site evaluation of open fields maintained for wildlife management programs. Historic archaeological and archival research is being conducted under the direction of Cynthia Price. Study of private artifact collections and survey of open field wildlife management areas is under the direction of James Price. Geomorphological study of processes operating in the Current River Valley area being conducted by Roger Saucier. The role of the Midwest Archeological Center has been largely related to survey of development areas in the park and evaluative testing of sites situated in these development areas.

These on-going studies have produced a considerable body of data pertaining to the archaeology and paleoenvironments of the eastern Ozarks region. The papers presented in this symposium focus upon selected topics pertaining to this research, with the objective of soliciting commentary and discussion from other professionals interested in this region.

Organizer: Jack D. Nance (Simon Fraser University)

LOWER CUMBERLAND ARCHAEOLOGICAL PROJECT

The Lower Cumberland Archaeological Project is a long term multidisciplinary research project aimed at understanding the prehistory of extreme western Kentucky, especially the archaic period. The research, supported by the Social Scientists and Humanities Research Council of Canada, began in 1978. The major components of the research program to date have included site survey/samplings, lithic raw material source studies, excavation at selected sites, geomorphology studies, and bioarchaeological studies. Papers in the symposium discuss the following topics: (1) Scope/objectives of the project and major problems being investigated; (2) experiments aimed at evaluating the reliability of certain formal survey/sampling methods; (3) progress in studies aimed at relating the geomorphological history of the area to the prehistoric record of the region; (4) excavation at three sites in Livingston and Caldwell counties; (5) initial investigations into the availability, abundance, distribution and prehistoric exploration of shell fish in the area, and (6) patterns of exploration of geologic chert types.

Organizer: Brenda Sigler-Lavelle (Florida State Museum)

Chair: Kathy Deagan (Florida State Museum)

THE ROLE OF THE ARCHAEOLOGIST AND ARCHAEOLOGY IN SCIENTIFIC POLICE INVESTIGATIONS

Criminal investigations frequently involve locating and removing buried bodies. This symposium focuses on the role of the archaeologist and archaeology in this type of policy inquiry. Special emphasis is placed on archaeological issues and problems unique to crime scene investigation; the complementary field tasks of the physical anthropologist; the archaeological field report; and, the archaeologist as expert witness in the criminal trial.

Organizer and Chair: Stephen Williams (Harvard University)

THE VACANT QUARTER HYPOTHESIS: A DISCUSSION SYMPOSIUM

During the three hundred year period from A.D. 1400 to A.D. 1700, changes of great magnitude occur among the aboriginal peoples of North America. The coming of the Europeans in the 16th Century assures that life for these peoples will never be the same again. However, the archaeological evidence is beginning to show that for portions of the Central Basin - the area around the Mississippi-Ohio River junction - major changes in population dynamics and lifeways had begun to affect Mississippian cultures resident in the area before DeSoto. The purpose of this symposium is to discuss the time period and our knowledge of its archaeology.

PAPERS

Lawrence S. Alexander (University of Alabama)

AN ARCHAEOLOGICAL SURVEY AT THE FALLS IN THE BLACK WARRIOR RIVER

An archaeological reconnaissance of 440 ha on the Black Warrior River floodplain west of Tuscaloosa, Alabama, was performed as Phase I of an environment assessment prior to the initiation of possible relocation of William B. Oliver Lock and Dam by the U. S. Army Corps of Engineers.

The survey area included the last set of shoals at the fall line and the Black Warrior River floodplain for approximately 3.2 km downstream. A model of the Middle and Late Holocene river terrace geomorphology was developed. This included a river channel bar paralleling the bedrock shoals, a point bar development downstream from the shoals, and an alluvial fan depositional sequence. A series of archaeological sites was employed to tentatively date this fluvial development. A strategy for deep testing to locate alluviated floodplain sites was designed from this geomorphological model.

Forty-nine archaeological sites were located and preliminarily evaluated. These sites range from small Middle Archaic and Gulf Formational artifact scatters to several large Late Woodland-Mississippian sites. The documentary and literature search has identified the area of Creek Black Warrior Town settlement and a tanyard operated by a free black businessman during the 1820s. The Late Woodland-Mississippian sites ranged from sherd scatters to a 1.2 ha midden and were the most salient aspect of the prehistoric settlement. Nineteenth and twentieth century industrial and domestic sites were also identified.

Jean W. Allan (University of Alabama)

MOUND STATE MONUMENT PALISADE EXCAVATIONS, 1978-1982

For the past five summers the University of Alabama Museum of Natural History has conducted an archaeological field school at the large Mississippian ceremonial center at Moundville, Alabama. This work is part of an ongoing project aimed at tracing the series of fortifications around the site. To date approximately 100 m of three parallel lines of wall trench palisades with bastions have been located. Several construction stages have been recognized. The majority of post remains recovered have been identified as pine.

Daniel S. Amick (University of Tennessee)

LATE ARCHAIC BIFACE MANUFACTURE: A VIEW FROM THE SOUTHWESTERN HIGHLAND RIM

Controlled surface collections and test excavations at the Topsy site (40WY204) on the Buffalo River, Wayne County, Tennessee, have yielded a substantial lithic assemblage. Recovered materials indicate predominantly Late Archaic occupations at the site. A major activity during these occupations was the manufacture of bifaces from locally abundant sources of Fort Payne cobble chert. Analysis of the assemblage is directed at examining patterns within the biface production trajectory. Size grading, breakage patterns, cortex

frequency, and thermal alteration are stressed in the analysis of both debitage and biface populations. In addition, the biface trajectory is simulated by generation of a thinning index allowing examination of serial patterns through the trajectory. Implications regarding regional and interregional Late Archaic biface manufacture, lithic utilization, and settlement systems are discussed.

David G. Anderson and Joseph Schuldenrein (Commonwealth Associates Inc.)

THE EARLY ARCHAIC COMPONENTS AT THE RUCKER'S BOTTOM SITE, ELBERT COUNTY, GEORGIA

In 1981 and 1982 a 12 m block was opened into the Early Archaic deposits at the Rucker's Bottom site in northeastern Georgia, along the Upper Savannah River. An assemblage dominated by Palmer points, expedient flake tools, and debitage was recovered, differing somewhat from other Early Archaic floodplain assemblages recovered in this part of the Southeast. The implications of the site assemblage in relation to models of Early Archaic settlement and land-use are examined. Associated paleoenvironmental studies have been directed toward reconstructing floodplain microenvironments, and geoarchaeological analyses have identified sedimentary and pedogenic intervals associated with particular landforms. Over the course of the Archaic it can be shown that prehistoric activity was geared to differential utilization of a complex and dynamic series of flood and basin settings.

Bruce F. Ball (Archaeological Survey of Alberta)

RELIABILITY OF TEST PIT SAMPLING IN ARCHAEOLOGICAL SURVEY. See Jack D. Nance.

James F. Barnett, Jr. (Mississippi Department of Archives and History)

EDUCATIONAL PROGRAMS AT THE GRAND VILLAGE OF THE NATCHEZ

The Grand Village of the Natchez, an archaeological park administered by the Mississippi Department of Archives and History, is the site of the historic ceremonial center of the Natchez Indians. Since 1977, the staff of the site has developed educational programs designed for specific school grade levels. The programs introduce students to varied aspects of American Indian culture with an emphasis upon Southeastern Indians. In addition to increasing site attendance, the original intent of the programs, awareness of archaeological aims and aboriginal lifeways has been heightened among local and area students.

Judith A. Bense (University of West Florida)

THE BENTON PHASE (5,000 B.P. - 6,000 B.P.) IN THE UPPER TOMBIGBEE VALLEY

Recent archaeological investigations in the Upper Tombigbee Valley have provided a relatively firm chronological base of prehistoric occupations in northeastern Mississippi. Within the Archaic stage, the Benton phase (5,000 B.P. - 6,000 B.P.) stands out as an anomaly from all other known cultural phases. Firmly placed chronologically, this phase differs in site use, site facilities, technology, trading patterns, and site placement than those that precede or follow. This paper will describe this phase in the Upper Tombigbee Valley and offer alternative hypotheses for its distinctive characteristics and relatively abrupt end.

Hugh E. Berryman (University of Tennessee-Memphis) and Craig H. Lahren (Memphis State University)

FORENSIC ARCHAEOLOGY: A TEACHING APPROACH

The forensic anthropology course taught at Memphis State University includes a section dealing with forensic archaeology. Artificial crime scenes, both surface and subsurface, are established well in advance of the course. Investigation and recovery of skeletal remains and associations are made by students with supervision from the instructors. The decomposition rates, efficiency of recovery strategy, and significance of this as a teaching tool will be discussed.

Hugh E. Berryman (University of Tennessee-Memphis)

FRACTURE PATTERNS AND STATUS AT CHUCALISSA: A BIOCULTURAL APPROACH. See Craig H. Lahren.

Fred H. Biggs (Jackson Purchase Archaeological Association)

THE IMPORTANCE OF PUBLIC ARCHAEOLOGY: CONTRIBUTING TO THE PRESERVATION OF WEST KENTUCKY'S CULTURAL RESOURCES

The Jackson Purchase Archaeological Association, in its very brief existence, has become the largest and most active amateur archaeological organization in the Commonwealth of Kentucky. Working closely with the Murray State University Archaeology Program, JPAA members have participated in training projects, public lectures and exhibits, and professional and independent research efforts touching on a wide variety of archaeological problems in the region. This paper presents an overview of JPAA activities, demonstrating how a public archaeological organization has contributed significantly toward public education and the preservation of archaeological sites in western Kentucky.

John H. Blitz (University of Southern Mississippi)

AN ARCHAEOLOGICAL SURVEY IN THE CHOCTAW HOMELAND. See Jerome A. Voss.

Richard A. Boisvert (University of Kentucky)

LATE ARCHAIC OCCUPATIONS AT BIG BONE LICK KENTUCKY: EVIDENCE FOR A FOCAL SUBSISTENCE?

Excavations by the 1982 University of Kentucky Archaeological Field School at the Glacken site (15BE272) in the Big Bone Lick State Park in northern Kentucky have revealed a Late Archaic component with a homogeneous artifact assemblage and feature inventory. Preliminary assessment suggests that during this occupation subsistence activities were focused upon a narrow range of resources related to the presence of swamps and saline springs in the immediate vicinity of the site. It is hypothesized that this site served as a very short term encampment for Late Archaic bands exploiting the specialized nature of the salt springs locality.

William R. Bowen (Georgia Department of Transportation)

INFERENCES FROM PREHISTORIC SETTLEMENT PATTERNS IN NORTHERN GEORGIA

Hypotheses concerning prehistoric subsistence of the Early Woodland Kellogg, Early Mississippian Woodstock, and Mature Mississippian Wilbanks-Savannah phases of northern Georgia are tested against settlement systems data developed for these three phases from the Allatoona Reservoir watershed. Based on the assumption that a dynamic relationship exists between a cultural group's mode of subsistence and choice of site location, a recurring pattern of settlement for a particular cultural group should give an indication of major subsistence practices. Results indicate that for the northern Georgia locality subsistence/settlement patterning may not fit the generalized patterns hypothesized for Mississippian groups.

C. Clifford Boyd (University of Tennessee)

FORMAL VARIABILITY IN EARLY MISSISSIPPIAN PROJECTILE POINTS FROM THE MARTIN FARM AND JONES FERRY SITES, TELLICO RESERVOIR

A total of 65 triangular projectile points from the Martin Farm (A.D. 900-A.D. 1000) and Hiwassee Island (A.D. 1000-A.D. 1300) assemblages at the Martin Farm site (40MR20) and from two pre-Mississippian features at Jones Ferry (40MR76) were studied in terms of seven continuous variables. These included length, width, thickness, weight, base curvature, and curvature of the lateral blade edges. Using these metric attributes, the projectile points were compared and clustered into like groups by means of t-tests, principal-component analysis

and hierarchical cluster analysis. The results of these analyses indicate that traditional nominal types such as Hamilton, Madison, and Dallas are inadequate for defining all significant formal variability, since size as well as shape determines projectile point clusters. Neither temporal nor spatial differences explain the formal variability in projectile points, because projectile points from different sites and temporal contexts form clusters. Thus, the analysis shows that small, triangular projectile points of the kind examined here are characteristic of pre-Mississippian through Early Mississippian habitation sites in the Tellico Reservoir.

Robert L. Brooks (Oklahoma Archaeological Survey)

LATE WOODLAND IN THE WESTERN OUTER BLUEGRASS: UPLAND SUBSISTENCE BEHAVIOR AT A SMALL HOMESTEAD

Late Woodland subsistence patterns in the western Outer Bluegrass are relatively unknown. Plant and animal remains encountered during excavations at the Old Bear site (15SH18), a Late Woodland homestead, have been analyzed using a "resource spacing" technique to produce a general resource exploitation model. Interpretations from this analysis indicate a dual exploitation pattern: a primary emphasis on areal utilization of the uplands with a secondary emphasis on the use of the linear riverine zone. Other analyses focused on butchering practices and species preference. Data derived from this analysis appear to be consistent with patterns found at larger Late Woodland settlements. Because most Late Woodland studies have focused on larger, more intensively occupied settlements, additional research is needed on the full range of Late Woodland and settlement-subsistence patterns.

Ian W. Brown (Harvard University)

PLAQUEMINE CULTURE HOUSES IN THE NATCHEZ BLUFFS REGION, MISSISSIPPI

The 1981 investigations of the Lower Mississippi Survey in the Natchez Bluffs region recovered abundant information concerning the kinds of houses used by Plaquemine peoples between A.D. 1100 and historic times. This paper reviews previous contributions to settlement pattern research in the region, as well as summarizes the results of the present project.

James A. Brown (Northwestern University)

VACANT CEREMONIAL CENTERS AND HOPEWELLIAN INTERACTION. See John A. Walthall.

Brian M. Butler and Debra Billings (Southern Illinois University)

THE FAULKNER SITE RECONSIDERED: A NEW LOOK AT OLD COLLECTIONS

The Faulkner site in Massac County, Illinois was investigated by the University of Chicago archaeologists in 1944. The site was the basis for the nebulous Faulkner complex, which constituted the Archaic portion of the emerging cultural sequence of the area. For years the site has been considered one of the type sites of the Archaic in the Lower Ohio Valley, but because the site was poorly stratified and poorly reported, it has been difficult to fit the site into more recent interpretations of the Archaic sequence. A reexamination of the collections from the site and new information from recent work in the area make possible a reappraisal of the Faulkner site and its place in the regional sequence.

Victor A. Carbone, A. V. Segovia, J. Foss, M. Sheehan, D. Whitehead, and S. Jackson, (Interagency Archeological Services)

THE PALEOENVIRONMENTAL PROGRAM OF THE RICHARD B. RUSSELL DAM AND LAKE PROJECT

This paper presents the results of paleoenvironmental investigations undertaken as part of the Cultural Resources Mitigation Program on the Richard B. Russell reservoir, in the Georgia-South Carolina Piedmont segment of the Savannah River. Geomorphological, pedological and palynological investigations were undertaken in conjunction with the survey and data recovery program in order to explore the changing pattern of man land relationships through time. The combined records provide the most complete history of the changing Southeastern Piedmont landscape since late glacial times.

Kenneth C. Carstens (Murray State University)

INVESTIGATIONS AND RESEARCH IN WESTERN KENTUCKY: AN OVERVIEW OF THE ARCHAEOLOGICAL PROGRAM AND POTENTIAL AT MURRAY STATE UNIVERSITY

Murray State University, a small regional university in the Jackson Purchase area of western Kentucky, has recently established an active archaeological program dedicated to research and preservation within its primary service area. This paper discusses the growth and development of the program at Murray State and its contributions to a regional archaeological synthesis. An overview of the diverse archaeological problems, projects and studies already undertaken by the Murray State program, with the close cooperation of the Jackson Purchase Archaeological Association, demonstrates the important research potential of this little-studied but highly significant region of the Southeast.

Joanna Casey (Simon Fraser University)

STUDIES OF FRESHWATER MUSSELS FROM EXTREME WESTERN KENTUCKY

One of the things that distinguishes the Archaic occupation of extreme western Kentucky from that of surrounding areas is an apparent lack of shell middens. Thus, one of the long term objectives of L.C.A.P. (Lower Cumberland Archaeological Project) is to explain why Archaic peoples of this region did not exploit mussels as a food resource. To that end studies of present molluscan populations and of shells recovered from Woodland and Mississippian occupations in the region have been initiated. Collecting activities carried out in 1982 are summarized and the present state of the studies is described.

Cheryl P. Claassen (Harvard University)

SHELL MIDDEN ANALYSIS PROJECTS OF 1981-82: PRELIMINARY ANNOUNCEMENT OF RESULTS

This research report quickly outlines the feasibility studies performed by the author in the last 18 months on various freshwater and marine shellfish species from archaeological shell middens. These projects involve the Trinity River Archaic, Green River Archaic, Mexico Pacific Coast San Blas, and Massachusetts modern pond species. More detail is given on an extensive two year project with Mercenaria from North Carolina coastal Woodland sites. Seasonality, detection of European influence, midden stratification, and site age were evident in column samples from 20 middens.

R. B. Clay (University of Kentucky)

THE RISING SUN HOUSE, AN ADENA RITUAL SPACE

Reanalysis of the excellent excavation record for Kentucky Adena indicates aspects of patterning to sub-mound structures which have not been noted before. These include the presence of doorways, and their solar orientation, and the distribution of activities within them. These strongly suggest that such structures, far from being "domestic" in purpose, were ritual "stages", certainly involved in mortuary ritual, perhaps other ceremonies.

These points are touched upon and illustrated, and in conclusion attempts are made to push the reconstruction and interpretation of aspects of Adena culture beyond the present state.

Roy J. Cochran, Jr. and Timothy C. Klinger (Historic Preservation Associates, Fayetteville, Arkansas)

THE ROLE OF SMALL SITES IN THE PARKIN SETTLEMENT SYSTEM

Although Parkin and the other sites which constitute the Parkin phase have been studied extensively for more than one hundred years, very little is known about them. This information consists primarily of material culture and the "St. Francis type" settlements. While these larger sites dominate the phase, their size has prevented any systematic scientific investigations from being completed. Smaller sites, less than one hectare in size, are well represented among the known sites, but have been neglected until rather recently.

Two of these sites, 3CT47 and 3SF49, have been subjected to intensive testing and excavation, respectively. In addition, detailed surficial investigations have taken place at several others. A synthesis of these data has provided considerable insight regarding the formation and operation of Parkin and other settlement systems in northeastern Arkansas.

Gerald C. Conaty (Simon Fraser University)

ARCHAEOLOGICAL INVESTIGATIONS AT THE MORRISROE SITE, LIVINGSTON COUNTY, KENTUCKY. See Jack D. Nance

B. Keith Cooper (University of Southern Mississippi)

AN ARCHAEOLOGICAL SURVEY IN THE CHOCTAW HOMELAND. See Jerome A. Voss.

K. Condon (University of Illinois School of Dentistry)

THE CEDAR GROVE PROJECT: EXCAVATION, ANALYSIS, AND REBURIAL OF A HISTORIC BLACK CEMETERY IN SOUTHWESTERN ARKANSAS. See M. L. Powell.

Ann S. Cordell (Florida State Museum)

PATTERNS OF RESOURCE SELECTION IN THE MANUFACTURE OF NORTH FLORIDA WEEDEN ISLAND POTTERY

A technological analysis was carried out on Weeden Island pottery recovered from the North Florida McKeithen site and on locally available clays. The investigation was directed toward identification of the number and nature of clay resources selected for manufacture of the pottery samples. It was found that 11 discrete clay resources were consistently utilized in the manufacture of the pottery, and that over half of the sources appear to have been locally acquired.

Cailup B. Curren, Jr. (Alabama-Tombigbee Regional Commission) and George E. Lankford (Arkansas College)

THE ALABAMA RIVER PHASE: A REVIEW

The "burial urn culture" has been studied periodically since the late 19th century but only recently have we found any conclusive data concerning the temporal and cultural significance of these groups of people. This paper deals with these people known as the Alabama River phase. We will cover the history of research dealing with this phase, the geographical and temporal range of the phase, and its origin, the subsistence patterns of the people, their burial practices and material culture, and present evidence that this phase was basically a reaction to biological and cultural contacts with 16th century Spanish expeditions.

Randy Daniel (Florida-Division of Archives, History, and Records Management)

PALEO-INDIAN IN CENTRAL FLORIDA: EXCAVATIONS AT THE HARNEY FLATS SITE

The Harney Flats site (8HI507) is one of 13 sites tested within the proposed I-75 right-of-way in Hillsborough County. For the past three years, excavations have been conducted in Hillsborough County by the Florida Division of Archives, History, and Records Management in cooperation with the Federal Highway Administration and the Florida Department of Transportation. Test excavations at Harney Flats were conducted during the summer of 1981 revealing a significant Paleo-Indian component. Subsequent salvage excavations were carried out with a large crew from last November through March. Over 900 m² were excavated focusing on three sub-areas of the site, uncovering over 1100 plotted tools and associated debitage believed to represent an inland base camp. The work at Harney Flats represents the most extensive excavation of an upland Paleo-Indian site in Florida and will contribute significantly to our understanding of that early culture period.

R. P. Stephen Davis, Jr. (University of Tennessee)

ABORIGINAL LAND USE PATTERNS WITHIN THE LOWER LITTLE TENNESSEE RIVER VALLEY

Probabilistic archaeological survey of valley and upland habitats within a 13,600 ha tract in southeastern Tennessee, conducted by the Department of Anthropology, University of Tennessee under contract with the Tennessee Valley Authority, has yielded data relevant to the study of aboriginal land use. Methods of survey sampling, including systematic plowing and controlled surface collection, are discussed. Survey data are used to develop a surface assemblage typology with functional meaning within the context of anthropological theory regarding collector and agriculturally-based settlement and subsistence systems. Assemblage types are analyzed spatially and temporally to define generalized land use patterns. Specific differences in land use between valley and upland zones are recognized which persist for over 9500 years of aboriginal occupation. Valley habitats, providing local biotic resource diversity and soils suitable for aboriginal agriculture, are comprised

largely of lithic and ceramic artifact assemblages which reflect site maintenance activities associated with residential camps and villages. Upland habitats, conversely, contain artifact assemblages associated largely with resource extraction. These results provide empirical support for intuitively held views among many Southeastern archaeologists regarding aboriginal land use during prehistory.

Kathleen Deagan (Florida State University)

EXPANDING THE CONCEPT OF APPLIED ARCHAEOLOGY

The past decade gives testimony to the dynamic nature and growth potential of the field of archaeology. As with other professions, archaeology consists of scientific modes of inquiry whose technical accomplishments and methods have application for the public good. This paper stresses the importance of expanding the concept of Applied Archaeology beyond the limits of cultural resource management through an increased awareness of the contributions archaeology can make to other fields, including criminal investigation.

Hazel R. Delcourt and Paul A. Delcourt (University of Tennessee)

HOLOCENE ENVIRONMENTAL HISTORY OF CENTRAL ALABAMA AND MISSISSIPPI

Comparison of the pollen record from Cahaba Pond, St. Clair County, Alabama, (H. Delcourt *et al.*, Ecology, in press) with that of B. L. Bigbee Oxbow, Lowndes County, Mississippi (Sheehan and Whitehead 1981, and manuscript submitted to Quaternary Research) is the basis for interpretation of the Holocene vegetation and climatic history of central Alabama and Mississippi. Cahaba Pond and its watershed, located at 33°30'N, 86°32'W at 300 m elevation above MSL, represents a microcosm within the southern Ridge and Valley province. The 0.2 ha pond is contained within a sinkhole formed in underlying Ordovician limestone. Cahaba Pond is fed by springs from a shallow aquifer that fluctuated with changes in total and seasonal rainfall. Thirteen radiocarbon dates on a 650 cm sediment core provide a detailed chronology for environmental changes recorded by assemblages of pollen and plant-macrofossils. From 12,000 to 10,000 years before present (B.P.), mesic forests dominated by beech, hornbeam, elm, and oaks occupied slopes adjacent the pond, with Atlantic white cedar and bald cypress at the pond margin. Submersed aquatic plants grew in the open pond. This assemblage reflected a cool, moist, equable climate and high water table in regional aquifers during the Early Holocene. Between 10,000 and 8,400 B.P., upland regional aquifers during the Early Holocene. Between 10,000 and 8,400 B.P., upland forest composition became more xeric, dominated by drought-tolerant oaks, hickories, and chestnut. Water table lowered, and the basin was occupied by a sedge marsh. After 8,400 B.P., the modern, warm-temperate climate and vegetation became established, with black gum, southern pines, and buttonbush abundantly represented in the fossil record at Cahaba Pond. In this watershed, rapid response of vegetation to climatic change is due to the direct hydrologic connections among precipitation, soil moisture, and pond depth in this upland, karst terrain. Maximum warm/dry conditions occurred in central Alabama between 10,000 and 8,400 B.P.,

significantly earlier than in the Midwest. During the time of the classic "Hypsithermal Interval", 8,000 to 4,000 B.P., the climate at this southern latitude was warm and humid.

Differences in the geomorphic setting of the B. L. Bigbee Oxbow account for changes in its pollen record that are not synchronous with those at Cahaba Pond; B. L. Bigbee is located at 33°36'N, 88°13'W at 49 m elevation above MSL on a Holocene terrace 5 m above the modern floodplain of the Tombigbee River. Cool-temperate, mesic forest taxa were most abundant between about 11,000 and 9,200 B.P., during the period just after abandonment of the oxbow but before substantial downcutting by the river. During the early Holocene, mesic trees would have occupied the infrequently flooded alluvial surface. Downcutting and abandonment of the 5 m high terrace by the Tombigbee River occurred after 9,200 B.P.; this may correlate with the development of a well-defined paleosol within the modern floodplain (Pettry and Bense 1982). Between 9,200 and 7,300 B.P., pollen percentages declined for mesic taxa because of decreased habitat resulting from drawdown of local water table during terrace formation. Lowest water levels in the oxbow between 7,300 and 3,500 B.P., coincided with maximum abundances of upland oaks and hickories. By 2,400 B.P., establishment of tupelo gum in the oxbow reflected a late Holocene in available precipitation.

The early Holocene onset of warm-dry climatic conditions at Cahaba Pond is consistent with other sites on the Gulf Coastal Plains (Watts, 1980). The B.L. Bigbee record illustrates a lag in geomorphic and vegetational response to Holocene climatic change.

Hazel R. Delcourt (University of Tennessee)

FORMAT PROJECT: FOREST MAPPING ACROSS EASTERN NORTH AMERICAN FOR THE PAST 20,000 YEARS. See Paul A. Delcourt.

Paul A. Delcourt and Hazel R. Delcourt (University of Tennessee-Knoxville)

FORMAP PROJECT: FOREST MAPPING ACROSS EASTERN NORTH AMERICAN FOR THE PAST 20,000 YEARS.

FORMAP is an NSF-supported project that represents a collaborative research effort among H.R. and P.A. Delcourt, and T. Webb III (Brown University, Providence, R.I.). FORMAP objectives include: (1) development of quantitative modern pollen-vegetation relationships across eastern Canada and the eastern United States, using both taxon calibration and modern-analogue techniques, (2) application of these techniques to fossil-pollen sequences in order to reconstruct in detail the history of vegetation development at each site, and (3) contoured mapping of population dominance for major tree taxa in a time-series of maps at 1,000-year intervals from 20,000 yr B.P. to the present.

We present a representative suite of maps from our atlas depicting patterns of species dominance and of modern pollen rain from eastern North America. We have computerized counts for over 1600 modern palynological spectra collected

Christopher T. Espenshade (University of Florida)

CERAMIC TECHNOLOGY AND THE TYPING OF UNDECORATED POTTERY FROM SOUTHERN LOUISIANA. See Teresia R. Lamb.

James A. Farley (Arkansas Archaeological Survey)

DATA-BASE MANAGEMENT, MICRO-COMPUTERS AND ARCHAEOLOGY: NEW APPROACHES TO OLD PROBLEMS

The analytical climate of contemporary archaeology demands that its practitioners establish and maintain mechanisms for the rigorous, cost effective control of data while preserving the inherent diversity by which that data is characterized. Integration of theoretical data-base management designed to preserve the logical structure of data sets with currently available technology and a sound appreciation of the archaeological questions being addressed, provides both the theoretical and practical framework to meet these needs. The development of Delos, a hierarchically structured, morphologically based system for the description of artifacts, used in conjunction with the Microart package, a series of interactive computer programs created to facilitate data entry, manipulation and curation in a micro-computer environment, represents the results of such integration. The use of micro-computers to accomplish the repetitive, time consuming tasks associated with data entry, data screening, and simple data manipulation, while preserving the ability to communicate with larger main-frame systems for the purpose of executing multivariate analysis, is seen as a major advantage of this approach.

Terry A. Ferguson, Robert A. Pace, Robert W. Hoffman, and Jeffery W. Gardner (University of Tennessee)

AN OVERVIEW OF ARCHAEOLOGICAL INVESTIGATIONS IN THE BIG SOUTH FORK NATIONAL RIVER AND RECREATION AREA: 1981-1982

Investigations by the University of Tennessee (Knoxville) are currently underway within specific development areas of the Big South Fork National River and Recreation Area. These investigations are directed toward the deliniation of both prehistoric and historic settlement patterning within the Big South Fork drainage of the Cumberland Plateau. This paper will briefly discuss the field investigations, consisting of both survey and testing, conducted during 1981 and 1982. Discussion will concentrate on distributions of cultural materials relative to contrasting topographic and biotic environmental contexts and investigations currently underway to implement comparisons of these data.

J. Foss (Interagency Archaeological Services)

THE PALEOENVIRONMENTAL PROGRAM OF THE RICHARD B. RUSSELL DAM AND LAKE PROJECT
See Victor A. Carbone.

Judith A. Franke (Illinois State Museum)

DICKSON MOUNDS

Illinois' Dickson Mounds, a modern museum facility with 64.8 ha of grounds including several archaeological sites, presents problems of utilization, preservation, and integration. The museum provides exhibits, audio-visual programs, and exhibited excavation, auditorium, public program areas, offices, collection storage, labs, darkroom, woodshop, and gift shop. Public use areas of the ground include a picnic and playground area, a ballfield, and several archaeological excavations preserved as exhibits. Plans are under development for additional utilization of the grounds by the public through education/entertainment programs and activities, reconstructions (Indian garden and habitation), and nature trails. The grounds provide a source of raw materials for use in public programs, and also serve a research function, providing space to process zoological specimens and excavated materials. Preservation at Dickson Mounds relates more to archaeological remains than the natural environment. Most of the grounds served as farmland for many years, and are currently being allowed to return to a more natural state. Consideration of unexcavated archaeological material influences the development of a natural environment, since trees, for example, cannot be allowed to grow in areas of archaeological remains. Integration is difficult to achieve in a multi-use facility: integration of recreation and educational aspects, integration of what is inside the museum with what is outside on the grounds. This paper examines utilization, preservation, and integration at Dickson Mounds, indicating how some of these problems are being approached. An additional illustration of integration is taken from the new exhibit plan for Ocmulgee National Monument, Georgia.

Jeffrey W. Gardner (University of Tennessee)

AN OVERVIEW OF ARCHAEOLOGICAL INVESTIGATIONS IN THE BIG SOUTH FORK NATIONAL RIVER AND RECREATIONAL AREA: 1981-1982. See Terry A. Ferguson

Thomas Gatus and John Yonk (Anthropological Research Associates)

LOWER CUMBERLAND ARCHAEOLOGICAL PROJECT INVESTIGATIONS AT THE COX SITE (15CA50), CALDWELL COUNTY, KENTUCKY

Preliminary archaeological research has revealed an extensive multifunctional site around and above a cave in the rolling Karstic uplands near Fredonia, Kentucky. During the 1982 field season four goals were identified: 1) definition of site boundaries; 2) identification of cultural components; 3) determination of the presence of intact dateable features; and, 4) establish, if possible, the range of cultural activities taking place through time. These goals were addressed by implementing various data collection strategies, including talking to local collectors and conducting general surface collections, random radial transect sampling and test excavations. The initial results revealed a camp/workshop and probable quarry in an area approximately

320,000 m² which had been occupied intermittently from about 9000 B.C. to A.D. 1600. One large excavated feature suggests, however, that the most intensive cultural activity took place during the Woodland period.

Jon L. Gibson (Archaeology Inc.) and Mitchell Hillman (Poverty Point State Commemorative Area)

POVERTY POINT EARTH ARCHITECTURE: IMPLICATIONS FOR URBAN PLANNING

Newly recognized earthforms and new thoughts about old ones at the Poverty Point site in northeastern Louisiana challenge the "master plan" architectural model advanced by Ford. Prospects for more gradual town development by "urban sprawl" are considered in light of the contention that Poverty Point represents the first, pristine achievement of chiefdom organization in the prehistoric United States.

Sharon I. Goad (Louisiana State University)

THE POVERTY POINT STATE COMMEMORATIVE

The Poverty Point site was incorporated as a State Commemorative Area in 1972. Since that time the 180 ha park has stabilized the mound and ridge area of the Poverty Point site and added structures such as an archaeological laboratory and museum. This paper traces the development of the Poverty Point State Commemorative Area as a continuing archaeological project, as a major tourist attraction in northeastern Louisiana, and as a learning center for professional and non-professional archaeologists. Comments concerning park usage, future plans, and additional information are also included in this report.

N'omi Greber and Dennis Griffin (Cleveland Museum of Natural History)

COMPARISON OF EXCAVATION AND SUBSURFACE REMOTE SENSING DATA FROM SECTIONS OF THE SEIP EARTHWORKS COMPLEX, ROSS COUNTY, OHIO

As an aid in estimating the extent of prehistoric utilization of the areas within the earthwork walls, several geophysical remote sensing techniques have been tested. A comparison and interpretation of electrical-resistivity and ground penetrating radar data with excavation results in a plaza-like adjacent to previously known structures is given.

Dennis Griffin (Cleveland Museum of Natural History)

COMPARISON OF EXCAVATION AND SUBSURFACE REMOTE SENSING DATA FROM SECTIONS OF THE SEIP EARTHWORKS COMPLEX. See N'omi Greber.

R. L. Guendling (Arkansas Archeological Survey)

THE CEDAR GROVE PROJECT: EXCAVATION, ANALYSIS, AND REBURIAL OF A HISTORIC BLACK CEMETERY IN SOUTHWESTERN ARKANSAS. See M. L. Powell.

Charlotte Gyllenhaal-Davis (University of Alabama)

A HAFTED GREENSTONE CELT FROM ALABAMA: WOOD DECAY IN AN ARCHAEOLOGICAL AXE HANDLE

Wood from the handle of a hafted greenstone celt was examined using the scanning electron microscope to aid in identifying the wood and to assess its preservation. Results indicated that the wood was in the white oak species group. Much of the wood's three-dimensional structure remained intact even at the microscopic level, but clear signs of breakdown were present. Following a review of wood anatomy and discussion of techniques, scanning electron micrographs of the archaeological wood and modern reference specimens will be discussed.

H. Stephen Hale (Florida State Museum)

A COMPARISON OF TECHNIQUES FOR INTERPRETING THE FAUNAL REMAINS FROM THE USEPPA ISLAND ARCHAEOLOGICAL SITE

Analysis of vertebrate and invertebrate faunal remains from the Useppa Island Archaeological site in south Florida was completed in 1981. This was one of the earliest reports completed at the Florida State Museum which included an assessment of the importance of the molluscan contribution to subsistence as well as the vertebrate contribution.

Subsequent collecting of large numbers of molluscan specimens has facilitated the formulation of several techniques for interpreting their dietary importance. A comparison of these techniques and evaluation of the appropriateness of each will be presented.

Charles L. Hall and Walter E. Klippel (University of Tennessee)

A POLYTHETIC-STATISFICER APPROACH TO NATURAL SHELTER FUNCTION IN THE NASHVILLE BASIN OF MIDDLE TENNESSEE

Numerous shelters have received archaeological attention, but few attempts have been made to assess parameters that effect their acceptability as loci of pre-historic human activity. Variation in rockshelter use along the Duck River is considered where acceptability is defined as a polythetic set (e.g. aspect, distance to water, size, etc.) of which some determinants were satisfied but no single determinant served as necessary and sufficient criteria for acceptability.

David J. Hally (University of Georgia)

THE IDENTIFICATION OF VESSEL FUNCTION: A CASE STUDY FROM NORTHWEST GEORGIA

The vessel assemblage characteristic of the 16th century Barnett phase in northwestern Georgia consists of at least 12 morphological vessel types--vessel forms that are distinct in either or both shape and size. The association of soot deposits with several of these vessel types indicates that most, if not all, are functionally distinct. This paper addresses the question of how the morphological vessel types comprising the Barnett phase vessel assemblage were actually used. Hypotheses concerning the function of the various vessel types are developed from several kinds of evidence, including vessel morphology, use alteration of vessel surfaces, and ethnohistorical information on aboriginal food preparation and pottery use in the Southeast.

Christine K. Hensley (Murray State University)

STRATIGRAPHY AND CERAMICS FROM A LOWER OHIO VALLEY MISSISSIPPIAN SITE IN WEST KENTUCKY.

The 1981 Murray State University Archaeological Field School conducted test excavations at the Reed site (15McN51), a Woodland and Mississippian site in the floodplain of the Lower Ohio River. The stratigraphy of the site provides valuable new data for the interpretation of a local ceramic typology. Comparison of the Reed site ceramics with those of other excavated Mississippian sites in the region allows a better understanding of the late prehistoric ceramic sequence in western Kentucky.

Mitchell Hillman

POVERTY POINT EARTH ARCHITECTURE: IMPLICATIONS FOR URBAN PLANNING. See John L. Gibson.

M. P. Hoffman (University of Arkansas)

THE PENDULUM AND THE PIT: VOGUES IN INTERPRETATION OF MISSISSIPPIAN PERIOD OCCUPATION IN THE SOUTHERN OZARKS

Until the 1970s, most archaeologists regarded the Mississippian period occupation of the southern Ozarks as less complex economically and sociopolitically than adjacent areas of the East ("the Old Orthodoxy"). The area was thought to be unproductive for simple horticulture and thus unable to support a complex society. Descriptive terms like "culture lag," "cultural conservatism," and "marginal" were used for the Mississippian period. During the last decade, discovery and test excavation of several multiple mound centers in the river valleys of the southern Ozarks have stimulated a drastically different

interpretation of late prehistoric southern Ozarks occupation (a swing of the pendulum). This "New Orthodoxy" is that Ozarks natives were intensive Caddoan horticulturalists who had a Mississippian adaptation in the Bruce Smith sense. However, based on currently available data, such a claim is premature. Significant environmental parameters characteristic of the Mississippian adaptation are lacking in the southern Ozarks. Also, convincing evidence for intensive horticulture, settlement hierarchy, and mortuary ranking is not available. The sherdless nature of most open sites makes Caddoan affiliation insecure and even in bluff shelters distinctive Caddoan pottery is rare. Unfortunately, recent excavations have focused on unraveling complex stratification in mounds relatively sterile of artifacts rather than the kinds of investigations necessary to confirm that a real Caddoan-Mississippian adaptation existed. Desirable kinds of research include the study of human skeletal material for indications of reliance on horticulture, the excavation of mortuary areas, and the recovery of domestic debris. Thus, excavation pits will help determine where the pendulum of Mississippian period interpretation will rest in the southern Ozarks.

Robert W. Hoffman (University of Tennessee)

AN OVERVIEW OF ARCHAEOLOGICAL INVESTIGATIONS IN THE BIG SOUTH FORK NATIONAL RIVER AND RECREATION AREA: 1981-1982. See Terry A. Ferguson

James D. Howard (Skidaway Institute of Oceanography)

ARCHAEOLOGICAL EVIDENCE FOR SEA LEVEL FLUCTUATION ON THE GEORGIA COAST. See Chester B. DePratter.

H. Edwin Jackson (University of Michigan)

A PRELIMINARY REPORT ON EXCAVATIONS AT THE J.W. COPES SITE, A POVERTY POINT PHASE SETTLEMENT IN NORTHEASTERN LOUISIANA

This paper describes excavations during the first field season at the J.W. Copes site. Well preserved faunal and floral remains, as well as a wide range of Poverty Point culture artifacts were recovered from stratified midden deposits. The ongoing analyses and their implications for understanding Poverty Point subsistence and settlement systems are discussed.

S. Jackson (Interagency Archaeological Services)

THE PALEOENVIRONMENTAL PROGRAM OF THE RICHARD B. RUSSELL DAM AND LAKE PROJECT. See Victor A. Carbone.

Richard W. Jefferies (Southern Illinois University, Carbondale)

MIDDLE ARCHAIC-LATE ARCHAIC SETTLEMENT VARIABILITY IN SOUTHERN ILLINOIS

Research in the Carrier Mills Archaeological District, Saline County, Illinois, has defined an intensive late Middle Archaic occupation (4000 B.C. - 3000 B.C.) similar to the Helton phase described by Cook (1976) for the Lower Illinois Valley. The late Middle Archaic component at Carrier Mills is characterized by a very intensive occupation resulting in the formation of a deep midden deposit. The quantity and diversity of artifacts and features, combined with a wealth of environmental data, indicate a wide range of extractive and maintenance tasks were conducted. Faunal and botanical indicators strongly suggest a year-round occupation. Subsequent Late Archaic activity (3000 B.C. - 1000 B.C.) in the District is characterized by a much lower level of occupational intensity, indicating an overall reduction in population. A variety of cultural and environmental indicators are employed to examine the changing nature of prehistoric activity during the final 3000 years of the the Archaic period. Results are compared with changes recorded for other portions of the Midwest.

Ned J. Jenkins (Auburn University)

THE GULF TRADITION AND HOPEWELLIAN CERAMICS

In this paper the Gulf ceramic tradition will be defined. Also, the role this tradition played in the development of the Middle Woodland Marksville, Santa Rosa, and Havana series will be explored.

Jay K. Johnson and John T. Sparks (University of Mississippi)

THE THREE FACES OF GORDON: CERAMIC SITE SAMPLING AT THE GORDON MOUNDS SITE IN JEFFERSON COUNTY, MISSISSIPPI

A ceramic assemblage recovered during the course of recent excavations at the Gordon Mounds site on the Natchez Trace Parkway in southwestern Mississippi is compared to two other samples from that site. One was reported by Cotter in 1951 and the other by Ford in 1936. Comparison necessitated that the earlier typologies be translated into the type-variety system currently in use in the area. It is possible therefore, to address methodological questions dealing with both systematics and sampling.

Michael J. Kaczor (Arkansas Archeological Survey)

WHEN IS A MOUND A MOUND?

Throughout the Southeast the archaeological record abounds with evidence of aboriginal societies that systematically constructed a variety of earthen structures that are collectively known as mounds. The majority of mound sites

on record are located in prime alluvial contexts that, unfortunately, coincide with areas of progressively intensive agricultural effort. The net effect on many of the "smaller" mound structures is their apparent obliteration from the archaeological record. Recent investigations at the Toltec site, however, have demonstrated that when systematic fieldwork is accompanied by fundamental geoarchaeological description and laboratory analysis, these mound remnants can still be documented. The investigative approaches herein suggested have the potential to elucidate data on community patterns that could well lead to better insights into the social and political fabric of these complex societies.

D. Kelley (Coastal Environments, Inc., Baton Rouge, LA)

THE CEDAR GROVE PROJECT: EXCAVATION, ANALYSIS, AND REBURIAL OF A HISTORIC BLACK CEMETERY IN SOUTHWESTERN ARKANSAS. See M. L. Powell.

Timothy C. Klinger (Historic Preservation Associates, Fayetteville, Arkansas)

THE ROLE OF SMALL SITES IN THE PARKIN SETTLEMENT SYSTEM. See Roy J. Cochran, Jr.

Walter E. Klippel (University of Tennessee)

A POLYTHETIC-STATISFICER APPROACH TO NATURAL SHELTER FUNCTION IN THE NASHVILLE BASIN OF MIDDLE TENNESSEE. See Charles L. Hall.

Phil Krebs (University of Alabama)

MOUND STATE MONUMENT

This paper examines the history, current emphases and future concerns of the park in the areas of buildings and grounds, archaeology and research, collections exhibits, public programs, and public relations. A three-year guideline of park plans is detailed.

Mary L. Kwas (Tennessee Department of Conservation)

BEGINNINGS AT PINSON MOUNDS STATE ARCHAEOLOGICAL AREA

Recently opened as one of the newly-designated "cultural areas", Pinson Mounds is still in the experimental stages of management, utilization, and interpretation. This paper examines the facilities, development, and interpretive attempts of the park's first two years.

Robert H. Lafferty, III (Arkansas Archeological Survey)

LITHIC REDUCTION AND EXPLOITATION IN THE COASTAL PLAIN UPLANDS OF THE FELSENTHAL REGION OF ARKANSAS

Archaeological materials from the Sparta Mine area of Calhoun County, Arkansas were analyzed to determine differences in the lithic reduction/exploitation sequences in Archaic and ceramic period assemblages. The substantial differences in the materials exploited and the ways these were reduced are modeled. The implications of the different resource bases and reduction sequences are discussed in terms of changes in regional interaction and changes in local upland adaptations.

Craig H. Lahren (Memphis State University) and Hugh E. Berryman (University of Tennessee-Memphis)

FRACTURE PATTERNS AND STATUS AT CHUCALISSA: A BIOCULTURAL APPROACH

Biocultural analysis of Mississippian mortuary practices has led to an increasing awareness of the integrated ecological, cultural, and biological systems affecting behavioral activities. In this study, fracture patterns are used as an interpretive device to investigate the activity patterns of high and low status individuals from the Chucalissa site in western Tennessee. The frequency, type, and location of fractures will be discussed in regards to these two groups.

Craig H. Lahren (Memphis State University)

FORENSIC ARCHAEOLOGY: A TEACHING APPROACH. See Hugh E. Berryman.

Teresia R. Lamb, Robert C. Wilson, and Christopher T. Espenshade (University of Florida)

CERAMIC TECHNOLOGY AND THE TYPING OF UNDECORATED POTTERY FROM SOUTHERN LOUISIANA

Archaeological sites in the Bayou Barataria region of southern Louisiana are often characterized by an overwhelming predominance of undecorated pottery. Traditionally, no temporal assignments are made for the plain ceramics of the area because of a uniformity in tempering. A ceramic technological analysis of both plain and decorated sherds was conducted in search of distinctions between the undecorated ceramics of the Tchefuncte, Marksville, Troyville, Coles Creek, Plaquemine, and Mississippian traditions. The pottery samples were examined for color, hardness, cross-section configuration, and the types and frequencies of aplastics in the paste. Preliminary results suggest that the variables examined are not reliable for making temporary distinctions among the undecorated pottery of the Bayou Barataria region.

George E. Lankford (Arkansas College)

THE ALABAMA RIVER PHASE: A REVIEW. See Cailup B. Curren, Jr.

Yulee W. Lazarus (Fort Walton Temple Mound)

THE FORT WALTON TEMPLE MOUND: AN ARCHAEOLOGICAL SITE SAVED BY A CITY

The Temple Mound in Fort Walton Beach, Florida, is the only temple mound directly on the Gulf Coast and is the type site of the Mississippian tradition Fort Walton culture. It is also the only site that has been developed solely by a City Administration in the State. Twenty years are traced from acquisition of the mound to the present day. An American Association of Museums accredited museum is on the site of this National Historic Landmark. Museum operation, exhibits, and design have several awards of merit. An innovative temple style shelter has been erected on the platform top of the mound.

Elizabeth K. Leach (University of Michigan)

DEVELOPING A GEOMORPHOLOGICAL FRAMEWORK FOR THE LOWER CUMBERLAND ARCHAEOLOGICAL STUDIES

Geomorphological studies of Lower Cumberland Archaeological Project were begun in 1980. The work of the first season was directed towards developing a geomorphological framework for the Morrisroe site, an Archaic midden deposit on the Tennessee River. Results of that field season indicated that the Tennessee River's Holocene behavior is largely controlled by its Pleistocene history. Fine-grained Pleistocene sediments have limited the amount of Holocene channel migration.

The 1982 field season concentrated on study of the Cumberland River Valley and on a small tributary stream within the karst uplands. A more general geomorphological framework for the L.C.A.P. area can now be developed.

Preliminary indications are that the Cumberland River, like the Tennessee River, is controlled by its Pleistocene history but that this history is more complicated than was apparent on the Tennessee. Differences in scale between the Tennessee and Cumberland Rivers, and of the upland stream, provide an opportunity within a small area for study of the development at various Pleistocene and Holocene (lacustrine/fluviol/karstic) land surfaces, and of the use of these landscapes through time.

Jane Luke (Simon Fraser University)

PREHISTORIC RAW MATERIAL USE AT THE TRAIL SITE, LIVINGSTON COUNTY, KENTUCKY

Lithic materials cannot necessarily be assumed to be a homogenous resource in archaeological sites. Particular types of raw material may be preferred for

certain uses. The purpose of this paper is to test the degree to which different chert types are associated with specific patterns of lithic utilization. Using data from a Middle Archaic site in Livingston County, Kentucky, a statistical model is presented, which is designed to test correlation between chert type and manufacturing activities. Criteria such as the type of finished tool, stages of manufacture represented at the site, and presence of heat treatment are examined.

Janice B. Luth (Angel Mounds State Memorial, Indiana Department of Natural Resources)

ANGEL MOUNDS: A PLACE FOR PUBLIC INVOLVEMENT

Angel Mounds State Memorial is operated under the auspices of the Division of Museums and Memorials, Department of Natural Resources. The 41.2 ha Mississippian site is located in the southeastern corner of Evansville, Indiana. Besides serving as an educational facility, an archaeological park should also be a dynamic, fun place for visitors. Angel Mounds tries to meet the needs of the area community through educational and public programming. A limited budget and staff is aided by the newly formed Volunteer Association and financial support group, Friends of Angel Mounds.

Mark J. Lynott (Midwest Archeology Center)

EARLY MISSISSIPPIAN PROJECTILE POINT FORMS IN THE EASTERN OZARKS, SOUTHEASTERN MISSOURI

Archaeological investigations at the Gooseneck site in Carter County, Missouri have provided evidence of a sedentary Mississippian occupation in the eastern Ozarks at about A.D. 750. While the ceramics from the site are similar in form and construction to vessels from Mississippian sites in the bootheel region of southeastern Missouri, the projectile points are quite different. Detailed examination of the projectile points from the Gooseneck site provides an indication of the range of forms associated with the Developmental Mississippian substage in the region. The majority of arrow points from the Gooseneck site are similar to forms that have been attributed to Late Woodland or Marginal Mississippian complexes elsewhere in the Ozarks. Recognition of the arrow point forms associated with the Early Mississippian time horizon in the eastern Ozarks is helping to generate a greater awareness of the role of the Mississippian complex in the culture history of the eastern Ozarks region.

J. David McBride (Louisiana State University)

A STUDY OF THE MICROFLINTS FROM POVERTY POINT

Analysis of the Poverty Point microflints both microscopically and macroscopically indicate that they were not used intensively. Edge crushing visible on the lateral edges of most of the perforators is the result of use. Earlier experiments indicate some type of scraping activity. An unusually

high edge angle between 80° -90° in most cases presents problems in explaining their function, but may be related to their small size.

The use of the local cherts, mostly river cobbles, also is important in viewing the microflint technology. Various authors have cited a causal relationship between the small size of the raw material and the development of the microblade and core industry. The best formed blades, cores, and Jaketown Perforators were made from the local chert. From the lithic debitage and cores it seems that the Jaketown Perforator was the primary goal in manufacture.

Paul McGuff and Timothy K. Perttula (North Texas State University)

ARCHAEOLOGICAL RESEARCH IN THE WESTERN OUACHITA MOUNTAINS: THE MCGEE CREEK ARCHAEOLOGICAL PROJECT

The U. S. Bureau of Reclamation, Amarillo office, is funding a multi-year archaeological program of intensive testing and excavation in the McGee Creek drainage, Atoka County, Oklahoma. The McGee Creek project area is situated in the Hogback Frontal Belt of the Ouachita Mountains physiographic province in southeastern Oklahoma.

After a year of excavation, over 50 prehistoric sites have been investigated, revealing occupations from the Early Archaic (Dalton) to the Early Caddoan period, with Late Archaic and Woodland components predominate in both upland ridge and bottomland settings.

The goals of the project focus on establishing models of adaptation and change in the western Ouachita Mountains within the context of dynamic Holocene environments, developing a regionally specific chronology, and delineating local material culture changes, particularly in lithic raw material procurement and processing.

Results and conclusions of the project to date are summarized.

Keith A. McIntyre

MODAL ANALYSIS OF CERAMIC VARIATION IN OLIVE JAR RIMS

The purpose of this paper is to describe the results of a study carried out on the olive jar assemblage of the Nuestra Senora de Atocha and the Santa Margarita, two Spanish galleons that sank in 1622. The main objective of this study was to assess the ceramic material through modal analysis to gain familiarity with some of the analytical problems olive jars present. The primary goal of this study was to investigate the degree to which modal analysis could be utilized to identify and quantify ceramic variation within a historic ceramic assemblage and to what extent this variation could be defined in terms of associational links between different types of individual modes.

Robert C. Mainfort, Jr. (Tennessee Department of Conservation)

PINSON MOUNDS: 1982 FIELD SEASON

Excavations were conducted at three localities within the site: the "Duck's Nest" (a small circular earthwork), Mound 10, and a crematory. Among the more interesting artifacts recovered were a number of sherds of Swift Creek Complicated Stamped ceramics. Several new radiocarbon dates add support to the contention that all of the earthworks at Pinson Mounds are of Middle Woodland age.

William R. Maples (Florida State Museum)

INTRODUCING THE ARCHAEOLOGIST TO FORENSIC ANTHROPOLOGY

For a variety of reasons, including a thorough dislike of the chores of archaeology, not all forensic (physical) anthropologists are competent field archaeologists. For these specialists, as well as those who prefer to use other professionals of greater competence, it is desirable to acquaint archaeological specialists to this demanding, rewarding, exciting and disgusting application. Having attempted such introduction to several individuals, I will discuss the problems, needs and special advantages to such a division of labor.

Jeffrey M. Mitchem (University of Florida)

EXPERIMENTS IN THE MANUFACTURING TECHNOLOGY OF PASCO SERIES CERAMICS FROM PENINSULAR FLORIDA

The work of Owen S. Rye and others in Papua New Guinea and elsewhere has demonstrated that potters in some areas use seawater to mix clays with limestone or shell inclusions. Others add salt to prevent a phenomenon known as lime-popping, a chemical reaction which occurs when limestone or shell is heated to high temperatures. Experiments were performed to determine whether prehistoric Florida potters were using seawater to mix clays while manufacturing vessels of the Pasco Series, a limestone tempered ware found primarily around the Tampa Bay area of Florida. Experimental firings of clay briquets with limestone temper were performed, using samples mixed with fresh water and sea water. A number of pasco sherds from various sites were also refired to observe reactions and estimate firing temperature. Results and implications are presented.

David G. Moore (North Carolina Division of Archives and History)

TEST EXCAVATIONS AT INDIAN FORT MOUNTAIN, BEREA, KENTUCKY

Test excavations were conducted at Indian Fort Mountain, Berea, Kentucky, in June, 1980. A six meter cross-section of one of the stone and earth embankments was exposed to reveal construction techniques and several features. Though no diagnostic artifacts were recovered, two radiocarbon determinations were made on wood charcoal from two of the features.

Darcy F. Morey (University of Tennessee)

ARCHAEOLOGICAL ASSESSMENT OF SEASONALITY FROM FRESHWATER FISH REMAINS: A QUANTITATIVE PROCEDURE

Reliable, replicable procedures for archaeological assessments of seasonality in noncoastal situations in North America are lacking. This paper presents a procedure for determining season of death of archaeological freshwater catfish (Ictalurus) based on analysis of measurements on incremental growth structures in pectoral spine thin sections from modern catfish from the Middle South. The measurements are regressed with the date of death of each specimen, resulting in a quantitative model for predicting the date of death of specimens for which this is unknown. The predictive reliability of the model is assessed with a "blind" test of modern specimens. Evaluation of modern specimens from regions north of the Middle South suggests that slight predictive error results when specimens from more northerly latitudes are assessed, though results are still usable. The procedure is applied to a sample of pectoral spines from the Schmidt site (25HW301), a late prehistoric Central Plains tradition settlement in central Nebraska. This site was the object of a larger study of subsistence and seasonality among horticulturalists in the Central Plains. Without this analysis little reliable seasonal evidence would have been available.

Robert T. Morgan (Auburn University)

CONTROLLED SURFACE COLLECTIONS AND INTRA-SITE VARIABILITY

As a part of the Lower Tallapoosa River Survey in central Alabama conducted by Auburn University, a controlled surface collection was made on Fusihahee, a historic Creek town. The site provided an opportunity to study the spatial distribution of artifacts across the site. In particular we examined the relationship between distributions of ceramic styles within a single site to determine what differences there are and to what extent do particular attribute clusters correlate with associated material remains. By correlating certain ceramic styles with other material remains, individual component occupations of the site should be detected and attempts can be made to delimit certain activity areas associated with particular cultural components within the site.

Dan F. Morse (Arkansas Archeological Survey)

NORTHEAST ARKANSAS IN THE FIFTEENTH CENTURY

Mississippian sites dating from about A.D. 800 to A.D. 1650 are known in northeastern Arkansas. Those dating between about A.D. 1050 and A.D. 1350 are very numerous and are located throughout the region. These sites seem to represent villages of varying sizes, some with multiple mounds, and numerous farmsteads.

The distribution and nature of fifteenth century sites are completely different. They are concentrated on the meander stream and prominent alluvial soils of northeastern Arkansas and consist for the most part of relatively large, apparently fortified villages. In contrast, the braided stream soils of northeastern Arkansas evidently were abandoned for the purposes of permanent habitation. The only recognized sites are frequent isolated finds of Nodena points and end scrapers and rare concentrations of these two artifact types together with a small amount of late ceramics at older Mississippian mound centers. These site types, respectively, appear to represent hunting camps and hunting base camps.

During the reconstructed middle period of Mississippian (A.D. 1050-A.D. 1350), there is an increased emphasis through time upon fortification and population nucleation (as versus dispersal). Around A.D. 1350- A.D. 1400, populations shifted to those habitats providing large expanses of prime soils for agriculture within which relatively large fortified villages with large permanent populations were established. Populations no longer were dispersed in farmsteads and areas not providing adequate concentrations of soils for population nucleation were abandoned for the purposes of permanent habitation. However, the hunting of mammals, probably mostly the white-tailed deer, continued throughout the area of habitation abandonment during the late period of Mississippian (A.D. 1350-A.D. 1650).

The 1541 De Soto expedition chronicles recorded that a long period of warfare had existed in this area. In addition, deer hunters were described in otherwise unoccupied areas by these early Spanish explorers. A fruitful avenue of investigation to explain population shifts at the beginning of the fifteenth century in northeastern Arkansas would seem to be warfare as part of the development of complex societies.

Jon Muller (Southern Illinois University-Carbondale)

SALT: MISSISSIPPIAN PATTERN OF EXPLOITATION

The 1982 season at the Great Salt Spring confirmed many of the patterns proposed on the basis of the 1981 season's work and gave new evidence on the patterns of exploitation of this resource. The Great Salt Spring shows little trace of activities other than salt production, but there appears to be considerable variation in the production tools. This may, with better chronological controls, suggest only part-time specialization at best. The Great Salt Spring provides a rare case of a documented limited-activity, Mississippian site.

Cheryl Ann Munson (Indiana University)

THE SOUTHWIND SITE PROJECT: ARCHAEOLOGICAL DATA RECOVERY AT A MISSISSIPPIAN VILLAGE, POSEY COUNTY, INDIANA

A large scale research project at the Southwind site, 12P0265 (Posey County, Indiana) has been undertaken as the first 'mitigative data recovery' efforts under Indiana's state historic preservation law. The project investigated a previously unstudied class of Mississippian settlement: a small village of the Angel phase. Following intensive surface survey and test excavation, the mitigation project used systematic sample excavations that were designed to recover data relating to: types and spatial organization of site activities; population size and composition; age, duration, and seasonality of occupation; community plan; and relationships to other settlements of the Angel phase. Preliminary results indicate that the Southwind site was a formally planned, fortified community of several hundred people, economically self sufficient, and related to the larger fortified town of Angel Mounds.

Jack D. Nance (Simon Fraser University) and Bruce F. Ball (Archaeological Survey of Alberta)

RELIABILITY OF TEST PIT SAMPLING IN ARCHAEOLOGICAL SURVEY

In recent years archaeologists have become concerned about the sampling methods used in archaeological survey. One technique that appears to have enjoyed wide acceptance in areas of low surface visibility is "test pit sampling." In order to permit assessment of the effectiveness of test pit sampling, on-site data were collected from 25 cm x 25 cm test pits from 25 sites in Kentucky, Alberta, and British Columbia. Preliminary statistical analyses have shown that the overall reliability of test pit sampling may be quite high. The effectiveness of the test pit method is shown to vary with: 1) density of identifiable cultural remains on a site surface and 2) degree of aggregation or clustering of those remains.

Jack D. Nance and Gerald C. Conaty (Simon Fraser University)

ARCHAEOLOGICAL INVESTIGATIONS AT THE MORRISROE SITE, LIVINGSTON COUNTY, KENTUCKY

The Morrisroe site is an Archaic midden located on the Tennessee River in Livingston County, Kentucky. Excavations in 1980 and 1982 revealed that the occupation levels are incorporated into silt/clay-sized floodplain deposits dating to as early as 6000 B.C. Artifact analysis and radiocarbon dates indicate that the earliest occupation pre-dates earlier known Archaic sites in the region. Studies of abundant carbonized plant remains have documented Archaic exploitation of the local flora. Animal remains are meager due to the nature of the deposit. Freshwater mussel remains are not present.

Michael S. Nassaney (Southern Illinois University - Carbondale)

ECOLOGICAL FACTORS INFLUENCING LATE PREHISTORIC SETTLEMENT PATTERNS IN THE LOWER MISSISSIPPI VALLEY

The spatial configuration of large, multiple mound sites in the Lower Mississippi Valley suggests that ecological factors influenced the manner in which human groups distributed themselves over the landscape. Variations in settlement choice are apparent between the northern and southern divisions of the Lower Valley. A model incorporating biophysical and social factors is presented which considers settlement pattern choices as adaptive strategies related to social organization, subsistence technology, and local environmental variables. Settlement nucleation and dispersion can be seen as responses to ecological relationships including resource availability, resource predictability, and population density.

Nancy O'Malley and Terry Tune (University of Kentucky)

CERAMICS FROM PETER VILLAGE, AN EARLY WOODLAND/ADENA OCCUPATION SITE IN FAYETTE COUNTY, KENTUCKY

Peter Village is an Early Woodland/Adena occupation site located near the Mt. Horeb Earthworks in Fayette County, Kentucky. Ceramic specimens from the site include both Adena Plain and Fayette Thick types. This paper will present the combined results of a traditional ceramic analysis and a petrographic analysis to investigate variation within the assemblage and suggest subdivisions which are recognizable on the basis of technology, tempering, surface treatment, and other variables. In particular, we are interested in providing additional information concerning the problems of classification associated with the Fayette Thick ceramic type.

Ann I. Ottesen (University of Louisville)

POSSIBLE MISSISSIPPIAN EXCHANGE ROUTES AND EARLY INDIAN TRAILS

This paper will examine the correlation between long distance movement of exotic raw materials during the Mississippian period and the locations of Indian trails used in the Early Colonial period. Myers presents a complex network of trails he believes were used in the Early Colonial period and before. This network will be used in conjunction with the location of sites containing each exotic raw material to indicate which could have been transported along the trails. In this way, it is possible to suggest routes which may have been used in Mississippian exchange.

Douglas W. Owsley (Louisiana State University)

CRIBRA ORBITALIA AND POROTIC HYPEROSTOSIS IN OVERHILL CHEROKEE AND DALLAS POPULATIONS OF EAST TENNESSEE

The occurrence of cribra orbitalia and porotic hyperostosis in human skeletal samples provides an indication of nutritional status. These bone pathologies have been linked to dietary iron deficiency in New World populations and are most often observed in groups with a high dependence on maize. This research report the frequency of cribra orbitalia and porotic hyperostosis in maize dependent, historic Cherokee populations of the Little Tennessee River Valley in eastern Tennessee. Contact and Colonial period Overhill Cherokee Indian skeletons from five archaeological sites were examined for the presence and severity of these pathologies. Both types of lesions were observed with the total sample frequencies being 30.4% and 7.3% for cribra orbitalia and porotic hyperostosis respectively. The data are subdivided by age and sex for comparative analysis and are contrasted with data provided by Parham (1982) for Late Mississippian Dallas skeletons from the same area. The Cherokee show a lower incidence and less severity of these pathologies. Archaeological data for Late Mississippian and historic Cherokee faunal and botanical utilization, as well as socio-cultural differences between these societies are considered in the interpretation of apparent population differences in nutritional sufficiency (Supported by TVA Contract No. TV-56089A)

Robert A. Pace (University of Tennessee)

AN OVERVIEW OF ARCHAEOLOGICAL INVESTIGATIONS IN THE BIG SOUTH FORK NATIONAL RIVER AND RECREATION AREA: 1981-1982. See Terry A. Ferguson.

Sandra Parker (Arkansas Archeological Survey)

A VALIDATION PROCEDURE FOR A LOGISTIC REGRESSION EQUATION PREDICTING SITE LOCATION IN THE SPARTA MINE AREA

This paper reports on the development of a validation procedure for a multivariate logistic predictive model for site locations in the Sparta Mine area, an area in south-central Arkansas of approximately 14,000 ha. The quantitative model was derived from sample data and predicts site location probabilities on the basis of 15 biophysical variables coded for a data base in which the units of analysis are geographic units of four hectares which represent possible site locations. This technique allows the generation of a probability surface for settlement locations in the Sparta area.

A two phase test was designed to validate the Sparta settlement model. One of these involved a cross validation procedure using the data from which the model was derived. The second phase of testing involved field survey which was judged to be appropriate as a test for the model.

Site settlement predictive models have significant practical and theoretical potential for explaining settlement systems and predicting site densities. Predictive modelling methodology must be expanded to include techniques for validating models if this potential is to be realized.

Claudine Payne (Florida - Division of Archives, History, and Records Management)

FARMSTEADS AND DISTRICTS: A MODEL OF FORT WALTON SETTLEMENT PATTERNS IN THE TALLAHASSEE HILLS

A model of Fort Walton settlement patterns in the Tallahassee Hills is presented. In contrast to recent studies, which have considered the distribution of major Fort Walton mound centers, this model focuses on the many small farmsteads at the lower end of the settlement hierarchy. The existence of nucleated villages in the Tallahassee Hills is questioned. Ethnohistoric and archaeological data are examined and an alternative settlement model is presented. Settlement patterns of other Mississippian systems are reviewed briefly and compared to those of the Tallahassee Hills.

Donald Pellecchia (Deputy State Attorney, State of Florida)

THE ARCHAEOLOGIST AS EXPERT WITNESS

When the archaeologist responds to the request of investigative agencies, he/she becomes articulated to a legal structure that is unusual to the field of anthropology. Since the buried body(ies) often signifies homicide, he/she can expect at some point to be subpoenaed to appear as an expert witness - an obligation not to be taken lightly. This paper discusses practical aspects of advanced arrangements and courtroom procedures which need to be considered by the forensic archaeologist.

Timothy K. Perttula (North Texas State University)

ARCHAEOLOGICAL RESEARCH IN THE WESTERN OUACHITA MOUNTAINS: THE MCGEE CREEK ARCHAEOLOGICAL PROJECT. See Paul McGuff.

M. L. Powell (Northwestern University), R. L. Guendling (Arkansas Archaeological Survey), K. Condon (University of Illinois School of Dentistry), J. C. Rose (University of Arkansas), D. Kelley (Coastal Environments, Inc.)

THE CEDAR GROVE PROJECT: EXCAVATION, ANALYSIS, AND REBURIAL OF A HISTORIC BLACK CEMETERY IN SOUTHWESTERN ARKANSAS

Excavations by the Arkansas Archaeological Survey in 1980 in a proposed Corps of Engineers revetment construction locale on the Red River revealed the existence of a historic Black cemetery adjacent to the project area. This was later identified as one of several small cemeteries associated with the nearby Cedar Grove Baptist Church, which was inundated by the Great Flood in 1927.

Removal of the cemetery was necessitated by its imminent destruction by the river and the Corps revetment. Negotiations conducted by the Survey, the Corps, the Bioanthropology Laboratory of the University of Arkansas, and

elders of the Church produced a contrast for excavation with an unusual proviso: all data collection would be conducted in the field in portable laboratory buildings and all materials would be reburied within a very limited period of time. These excavations, immediate study, and reburial took place between June 17 and July 2, 1982.

The site was stripped by bulldozer and the burials (mapped in 1980 after stripping) relocated. Of the 105 recorded previously, 19 had been lost to river action; 6 subsequently yielded no evidence of remains. In 16 consecutive days, 81 burials were relocated, excavated, analyzed and reinterred. Excavation and data collection "assembly lines" were set up, with all personnel except the field coordinator assigned specific tasks. The average time elapsed between location and reburial of each individual was three days.

Demographic analysis of the sample revealed high infant mortality (42%), with systemic infectious pathology widely prevalent in that age group. Skeletal manifestations of anemia were not uncommon among subadults. Adults displayed evidence of heavy mechanical stress: osteoarthritis, osteophytosis, and Scmorl's nodes. The pattern of skeletal robusticity reversed normal expectations, in that females were generally more robust proportionately than males. Dental health appeared moderately good, with little evidence of severe developmental disturbances. Traumatic injuries included several well-healed fractures and two gunshot wounds.

The burials were arranged in four rows, heads to the west in accordance with Christian tradition concerning the Last Judgment. The more recent adult coffins frequently included glass viewing plates and plaques inscribed "At Rest". The coffins of children lacked such adornments, as well as the elaborately wrought coffin handles reserved for adults. No gravestones were recovered, although four burials marked with such had been removed for reinterment in 1980.

The yields from this project are twofold in nature: in humanistic terms, the preservation of a cemetery population from destruction, and in scientific terms, the collection of a considerable body of valuable data on the mortuary customs and skeletal biology of a rural Black community segment of the late nineteenth and early twentieth centuries. A further contribution to the discipline of archaeology is the development of an extensive protocol for rapid but carefully controlled excavation and data collection from human burials, now refined through a rigorous field test, which should benefit future projects of this nature.

James E. Price (Southwest Missouri State University)

CULTURAL SEQUENCE OF THE CURRENT AND JACKS FORK VALLEYS IN THE EASTERN OZARKS OF SOUTHEAST MISSOURI

The first year of archaeological investigations conducted by the Southwest Missouri State University, Center for Archaeological Research for the National Park Service in the Ozark National Scenic Riverways involved generation of a data base on the prehistoric cultural sequence of the Jacks Fork and Current

River Valleys. Examination and photographic cataloging of seven private artifact collections numbering over 3,000 specimens and examination of artifact inventories generated by pedestrian survey of many sites in the Riverways provide data on the range, age, and frequency of prehistoric archaeological materials in the region. This study revealed there has been relatively heavy occupation of the valleys from the Paleo-Indian stage to proto-historic times and that many of the major cultural developments of the Mississippi Valley penetrated deep into the Ozark Highland. Data generated during this basic study will be employed in refinement of research objectives relevant to several major regional research concerns and selection of both small, single component sites and large, stratified midden sites for testing in later stages of the long-range Ozark National Scenic Riverways Archaeological Project.

Barbara A. Purdy (University of Florida)

WOOD PRESERVATION: A COMPARISON OF TWO METHODS. See Craig Dochniak.

Elizabeth J. Reitz (University of Georgia)

APPLICATION OF ALLOMETRY TO ZOOARCHAEOLOGY

Zooarchaeologists have tried various methods to assess relative dietary contribution of species identified from archaeological sites. Standard methods are based upon an assumption that bone weight is a fixed percentage of total body weight, or require calculating an "average" body size for identified taxa. In fact, the relationship between bone weight and body mass is an allometric one which can be described by a linear regression. Use of this regression in zooarchaeological analysis places original body mass predictions on a more bound biological basis while making calculations of "average" weight unnecessary. The potential of allometry is discussed and objections addressed. Examples are drawn from excavations at coastal sites in Georgia.

Anne F. Rogers (Western Carolina University)

A COMPARISON OF METRIC ATTRIBUTES OF SELECTED LATE ARCHAIC CHERT AND QUARTZ TOOLS

Examination of chert and quartz tools from a single-component Late Archaic site indicates that the prehistoric occupants of the site utilized either material for manufacturing a variety of tools. Neither appears to have been chosen preferentially for specific functional reasons. However, differences in metric attributes do suggest that chert, which was not obtainable locally, was more extensively conserved than was quartz, which is readily available in the immediate area. It appears that otherwise quartz was utilized in much the same way as chert rather than in a limited manner when chert was unavailable.

J. Daniel Rogers (University of Oklahoma)

INTERPRETIVE DEVELOPMENT AT THE SPIRO MOUNDS SITE

Since the 1930s the Spiro Mounds site has been recognized as one of the most prominent of the Mississippian period ceremonial centers. Even with this lengthy recognition the site has only recently been opened to the public as a state park. A program of research, on-site interpretation, and public involvement initiated in 1979 have continued to increase Spiro's educational value for the layman as well as the professional archaeologist. Future interpretive plans for the site include restoration of mounds and buildings and the development of outdoor explanatory exhibits.

Martha A. Rolingson (Arkansas Archeological Survey)

PUBLIC ARCHAEOLOGY AT TOLTEC MOUNDS STATE PARK, ARKANSAS

Toltec Mounds State Park, in central Arkansas, is operated cooperatively by the Arkansas Archeological Survey and Department of Parks and Tourism. While the Survey is responsible for research and interpretation and Parks for public facilities and programs, the data used in programs is developed cooperatively. The interpretive program includes exhibits, tours, audiovisual shows, and a variety of lectures and programs and programs designed for specific groups. Both archaeology and prehistory are emphasized in these programs.

J. C. Rose (University of Arkansas)

THE CEDAR GROVE PROJECT: EXCAVATION, ANALYSIS, AND REBURIAL OF A HISTORIC BLACK CEMETERY IN SOUTHWESTERN ARKANSAS. See M. L. Powell.

Kurt C. Russ (University of Tennessee)

ARCHAEOLOGICAL INVESTIGATIONS AT MIALAQUO -- AN EIGHTEENTH CENTURY OVERHILL CHEROKEE TOWN

Excavations were conducted at the historic Cherokee site of Mialaquo (40MR3) during 1976 and 1977. Ethnohistoric sources and preliminary artifact analysis corroborates a Late Colonial and Revolutionary period occupation at the site. Heretofore, there has been little archaeological documentation of this period for the Overhill Cherokee. As a result, Mialaquo is particularly important since it provides data relevant to the archaeological definition of a Revolutionary period material culture pattern for the Cherokee. Pattern definition is based on a quantitative functional classification scheme which incorporates both Native American and Euroamerican artifacts. Explication of the Revolutionary period pattern and comparisons with Cherokee material culture patterns for the

preceeding Colonial and subsequent Federal periods hold significant potential for increasing our understanding of Cherokee material acculturation.

Roger T. Saucier (Vicksburg)

GEOMORPHOLOGICAL STUDIES IN THE OZARK NATIONAL SCENIC RIVERWAYS

The origin and evolution of the physical landscape along the Current River and Jacks Fork in southeastern Missouri are being studied in association with archaeological investigations to help explain man's association with his natural environment. Initial map and aerial photo interpretations indicate the narrow bedrock-controlled valleys contains three fluvial terraces. Although narrow and discontinuous, these pronounced topographic features have long afforded excellent habitation sites in proximity to the rivers. Prehistoric site associations and soils characteristics suggest the youngest terrace is at least Early Holocene and probably Wisconsinan in age while the second terrace is probably Sangamonian in age. Pronounced river channel stability through time is evidenced; however, occasional chute cutoffs took place, some of which are filled with organic debris suitable for radiocarbon dating and macrofloral analyses. Preliminary geomorphological interpretations favor slow lateral river channel migration as the key process in terrace formation rather than cycles of significant aggradation and degradation. Major historic period lateral channel shifting and terrace erosion took place as a result of a massive influx of gravel attributable to forest clearcutting.

John Scarry and Claudine Payne (Florida-Division of Archives, History, and Records Management)

A HYPOTHETICAL RECONSTRUCTION OF MISSISSIPPIAN POLITIES IN THE FORT WALTON AREA: APPLICATION AND EVALUATION OF THE RENFREW-LEVEL XTENT MODEL

A hypothetical reconstruction of Mississippian polities is developed for the Fort Walton area. The model focuses on the identification of independent and subordinate mound centers and the estimation of the boundaries of the territories controlled by the independent centers. The reconstruction is based on the XTENT model formulated by Colin Renfrew and Eric Level. This model treats the extent of the relative influence of a center as a function of center size and distance from the center. A preliminary evaluation of the reconstruction, employing both archaeological and ethnohistorical data, suggests that it may be an acceptable working hypothesis for the organization and distribution of Mississippian systems in the Fort Walton area.

Joseph Schuldenrein (Commonwealth Associates Inc.)

THE EARLY ARCHAIC COMPONENTS AT THE RUCKER'S BOTTOM SITE, ELBERT COUNTY,
GEORGIA

See David G. Anderson.

A. V. Segovia (Interagency Archaeological Services)

THE PALEOENVIRONMENTAL PROGRAM OF THE RICHARD B. RUSSELL DAM AND LAKE PROJECT.
See Victor A. Carbone.

Gary Shapiro (The LAMAR Institute)

VESSEL FORM AS AN INDICATOR OF SITE SPECIALIZATION WITHIN A LATE PREHISTORIC
SETTLEMENT SYSTEM

An identification and comparison of ceramic vessel forms recovered from four Lamar period sites is presented. It is likely that each of these sites played a differing role within the settlement system of the Oconee province, an archaeologically recognized political/social unit in the Georgia Piedmont. In this light, differences between the "site vessel assemblages" are likely to reflect site variability and site specialization within this late prehistoric settlement system.

M. Sheehan (Interagency Archaeological Services)

THE PALEOENVIRONMENTAL PROGRAM OF THE RICHARD B. RUSSELL DAM AND LAKE PROJECT.
See Victor A. Carbone.

J. Richard Shenkel (University of New Orleans)

BIG OAK ISLAND, REVISITED

Recent excavations at the Big Oak Island site in southeastern Louisiana revealed the presence of at least two separate burial areas. The first contained no grave furniture but had a scatter of Tchefuncte period ceramics in the fill. Interments consisted of both flexed and bundled burial types. At least two of the individuals appear to have been murdered or had their skulls pierced with a small round tool while the bone was still green. The second burial area consisted of bundle burials exclusively and included ceramics of the Early Marksville period as well as other exotic grave goods. General burial patterns between the two areas were broadly similar but there were several significant differences suggesting a change the religious or

socio-political sphere. In a third area of excavation, a clear transition from Tchefuncte to Marksville ceramics was obtained from the stratigraphic column.

Brenda Sigler-Lavelle (Florida State Museum)

ARCHAEOLOGY AND FORENSIC INVESTIGATIONS

While the use of archaeological field techniques in the removal of recently buried bodies is not new, archaeologists have been slow to join the forensic team. Historically, forensic specialists from the field of physical anthropology, who are also highly skilled in archaeological field procedures, have conducted such excavations. This paper examines the role of the archaeologist at such a crime scene, the investigative structure, field procedures, environmental and behavioral variables which affect preservation, report preparation and content, and professional credibility.

Betty A. Smith (Kennesaw College)

ARCHAEOLOGICAL SURVEY OF TALLASSEE SHOALS, MIDDLE OCONEE RIVER, JACKSON AND CLARKE COUNTIES, GEORGIA

Between 1902-1964, a dam for a hydroelectric plant spanned the Middle Oconee River at Tallassee Shoals. The plant was closed down and the dam breached in 1964. Plans are now underway to rebuild the dam and once again impound the waters of the Middle Oconee. An archaeological survey was conducted of the impacted area in compliance with federal regulations. The purpose of this paper is to report the results of that survey with reference to the impact of the dam and its subsequent breaching upon archaeological resources.

John T. Sparks (University of Mississippi)

THE THREE FACES OF GORDON: CERAMIC SITE SAMPLING AT THE GORDON MOUNDS SITE IN JEFFERSON COUNTY, MISSISSIPPI. See Jay K. Johnson.

Jeanette E. Stephens (Southern Illinois University-Carbondale)

THE MISSISSIPPIAN HOUSEHOLD: ETHNOHISTORICAL AND ARCHAEOLOGICAL PERSPECTIVES

The "household" comprises a basic social unit within any society. An understanding of its structure provides a basis for analyzing the structure of the society as a whole. Characteristics of household organization will be discussed, including the role of residence, kinship, and activity structure in household composition. Ethnohistorical data from the Southeast will be used to

present a model of Mississippian household structure. Suggestions will be made about the archaeological correlates of Mississippian household organization.

Vincas P. Steponaitis (S.U.N.Y. - Binghamton)

THE SMITHSONIAN INSTITUTION'S INVESTIGATIONS AT MOUNDVILLE IN 1869 AND 1882

Recent work has uncovered records pertaining to two early investigations at the Moundville site in Alabama. The first was conducted in 1869 by N. T. Lupton, who produced a map of the site and excavated a trench in Mound O. The second took place in 1882, when James D. Middleton mapped the site again and obtained a collection of artifacts.

The descriptions made by Lupton and Middleton provide an interesting glimpse of the earthworks as they appeared before erosion had fully taken its toll. In particular, it is evident that the site was once surrounded by an earthen embankment associated with the palisade, and that Mound B was originally terraced. Furthermore, the data from Lupton's excavations suggests that Mound O was constructed in at least 3 stages.

Equally interesting are some of the artifacts obtained by Middleton. Among them is a fragment of an oblong, red-slate gorget that apparently had broken in the process of manufacture. The presence of this unfinished object at Moundville suggests that the fabrication of such gorgets -- typically found in elite burials -- may have been an activity carried on at or near the site itself.

Leslie C. Stewart-Abernathy (Arkansas Archeological Survey)

THE BLACK COMMUNITY AT SAWDUST HILL: FURTHER HISTORY OF THE PARKIN SITE, CROSS COUNTY, ARKANSAS

The Sawdust Hill community is a present day neighborhood of Black families who live on the Parkin site on the St. Francis River in Cross County, Arkansas. The Parkin site was a fortified Late Mississippian village and perhaps was the capital of Casqui province visited by DeSoto in 1541. Three hundred and fifty years later a timber milling complex was established there. This paper concerns a brief documentation project that provided one of the first extensive photographic and cartographic records of how a small spatially well-defined Black community has molded a landscape inherited from Native Americans and further transformed by the industrial needs of timbering into a settlement pattern best suited to semiurban life in agricultural eastern Arkansas. Such data are critical if we are to make long range plans for the preservation of the site and to understand both the Indian and the post-Indian cultural landscapes.

Judith C. Stewart-Abernathy (Arkansas Archeological Survey)

X-RAY DIFFRACTION: EXAMINATION OF AN OBJECTIVE TECHNIQUE TO DISTINGUISH REGIONALLY LOCAL AND NONLOCAL PREHISTORIC CERAMICS

X-ray diffraction is an objective technique that has been suggested for identifying potential trade ceramics. Such a technique must be able to distinguish between ceramics produced locally and those produced in another physiographic region. X-ray diffraction works by distinguishing the constituent clay minerals produced from a parent material on the basis of diagnostics keyed to molecular spacing and orientation of the clay mineral structure. In order to test the applicability of x-ray diffraction, ceramics from the Toltec Mounds site in the Arkansas River Basin region were compared to ceramics from the Cooper and Means sites of the Ouchita River Basin region. Results indicate that x-ray diffraction can be utilized in a limited manner to distinguish clays from different parent sources, but only if the parent materials sharply contrast in proportions of their respective constituent clay minerals. Otherwise, the results can be ambiguous due to the contracted nature of the heated clays and the presence of various tempers which may mask instrument readings. As a sidelight, the analytical process of x-ray diffraction may provide the minimum temperature at which the ceramics were fired.

Billy L. Townsend (Georgia Department of Natural Resources)

ALIGNING GOALS: ARCHAEOLOGISTS AND EXHIBIT PLANNERS

Because of short visits, lack of background knowledge, lack of serious interest, and a media-jaded public, close cooperation between archaeologists and exhibit planners is vital to successful exhibitions. The close cooperation between the excavating archaeologists and exhibit planners and designers at Eowah and Kolomoki Mounds has resulted in exhibits that inform and entertain visitors while they help meet the preservationist goals of the archaeological community. This paper examines these conclusions.

Neal Trubowitz (Arkansas Archeological Survey)

LATE CADDO SETTLEMENT AND SOCIETY AT THE CEDAR GROVE SITE

Thermoluminescence and radiocarbon dates have confirmed ceramic age estimates that the Caddo occupation of the Cedar Grove site (3LA97) in Lafayette County, Arkansas spanned the period between A.D. 1670 and A.D. 1730. The Caddo farmers inhabited a point bar ridge away from the main Red River channel. Circular houses were located along the length of the highest elevations of the ridge, safe from most flooding. Details of the site's settlement pattern were found to compare favorably against the Teran-Soule ethnographic model, which was derived by Frank Schambach from the historic Teran map (1691-1692) of a Caddo village upstream in northeastern Texas, and the nineteenth century photographs by Soule of a Caddo homestead in Oklahoma. Aboriginal graves found at the site provided data on inheritance of social status, patrilocal residence, and access to trade goods being dependent upon social rank. These

data are summarized to present a general view of a Chakanina phase farmstead and its place in the local settlement system.

Terry Tune (University of Kentucky)

CERAMICS FROM PETER VILLAGE, AN EARLY WOODLAND/ADENA OCCUPATION SITE IN FAYETTE COUNTY, KENTUCKY, See Nancy O'Malley.

William B. Turner (University of Tennessee)

INITIAL REPORT OF TESTING AT THE HAYES SITE

Recent testing at the Hayes site (40ML139), a stratified Archaic shell midden located along the Duck River in the Inner Central Basin of Tennessee, is discussed. The presentation focuses on the use of a previously identified sequence of stratified Holocene alluvial sediments containing sealed cultural deposits to help interpret depositional complexity evident in the midden.

Jerome A. Voss, John H. Blitz, and B. Keith Cooper (University of Southern Mississippi)

AN ARCHAEOLOGICAL SURVEY IN THE CHOCTAW HOMELAND

As the first phase of investigation into early historic Choctaw settlement and organization, an archaeological survey was conducted in the Choctaw homeland in Mississippi during 1982. The survey was conducted in two areas of the Sucarnoochee River drainage in Kemper County, Mississippi. This paper discusses the initial findings of the survey, with emphasis placed upon the description of material culture, settlement patterns, and test excavations of Choctaw period sites. The majority of artifacts recovered from Choctaw sites were shell-tempered sherds, both decorated and undecorated. The pottery is described and preliminary conclusions concerning pottery classification are presented. Other artifacts recovered included clay pipe fragments, European ceramics, and gunflints. The survey results support ethnohistoric accounts of Choctaw settlement patterns. Within the survey area, the Choctaw settlement system apparently consisted of dispersed hamlets or households rather than population concentrations. Most of the sites were small clusters of sherds and other artifacts, located along low, relatively flat ridges above permanent water sources. Several settlements were located which have been specifically identified by historic accounts. Finally, in an attempt to locate a site suitable for future excavation, test excavations were conducted at several sites. The results of these excavations are discussed.

David B. Waddell (Arkansas Archeological Survey)

TEMPORAL STRATIFICATION OF SITES FOR PREDICTIVE MODELING OF SITE LOCATION

Effective predictive modeling of prehistoric site location requires temporal stratification of the site sample in order to encompass specific site/environment relationships that change through time in response to shifts in settlement and subsistence. Ideally, this stratification should produce maximum variance between and minimum variance within temporal subsets for relevant environmental variables. A quantitative analysis, including analysis of variance, of 23 environmental variables recorded for 137 sites in northeastern Arkansas indicates: (1) the classical temporal model of Paleo-Indian, Archaic, Woodland, and Mississippian temporal subsets is appropriate for base settlement sites and (2) a "preadaptive" temporal model is more appropriate for specialized activity sites. The "preadaptive" model assumes that changes in settlement and subsistence preceded, for the most part, the changes in material culture which serve as the basis for temporal classification.

Diana Walker (University of Florida)

TECHNOLOGICAL ANALYSIS OF EARLY STYLE OLIVE JARS

Olive jar sherds from three different sites that fall within the time period of Goggin's Early Style olive jar are analyzed for technological and mineralogical differences in order to define groups that may represent different production areas. Preliminary results and their implications for Spanish trading patterns are discussed.

Richard Walling (University of Alabama)

A HAFTED GREENSTONE CELT FROM ALABAMA: THE ONE THAT DIDN'T GET AWAY

A Mississippian period, hafted greenstone celt was recently recovered from the Black Warrior River in Greene County, west central Alabama. The waterlogged white oak haft is well preserved. The artifact, acquisition, and method of conservation are described.

John A. Walthall (Illinois Department of Transportation) and James A. Brown (Northwestern University)

VACANT CEREMONIAL CENTERS AND HOPEWELLIAN INTERACTION

Over the past decade several small habitation sites have been reported in the South Appalachian region which have major Hopewellian components. These sites are compared to one another and to Hopewell ceremonial centers in the Midwest. The data generated by such comparison indicate close similarities between these sites, which date to the first two centuries A.D. Further, it is suggested that these sites represent a single settlement type, the vacant

ceremonial center. It is demonstrated that these vacant ceremonial centers are characterized by particular types of assemblages with specific ritual functions. Data are also presented which show that this ceremonial complex, in a modified form, was basic to post-Hopewellian ritual systems.

Gregory A. Waselkov (Auburn University)

CHANGING UPPER CREEK SETTLEMENT PATTERN

In 1981, 200 archaeological sites were either relocated or newly discovered during a survey of 12 km of the Lower Tallapoosa River Valley in central Alabama. Changes in Upper Creek settlement pattern were discovered from Thiessen polygon analysis of survey results. While major town locations and inter-town boundaries remained relatively stable throughout the protohistoric and historic periods, there was a definite trend toward dispersal of smaller settlements within town districts. A comparison of site locations with a 1798-1799 description of the Creek country by U.S. Indian agent, Benjamin Hawkins, indicates that agricultural fields were preferentially placed in first bottomland silts and silt looms, which helps explain the stability of town locations.

Lucy B. Wayne (Water and Air Research, Inc.)

CULTURAL RESOURCE SURVEYS IN COASTAL VIRGINIA

During the spring and summer of 1982, Water and Air Research, Inc. (WAR) conducted intensive cultural resource surveys for the U. S. Navy at five sites in coastal Virginia. The sites are: Naval Amphibious Base Annex at Little Creek, Fort Story, Camp Pendleton Annex, Fleet Combat Training Center at Dam Neck, and Cape Charles Air Force Base on the Eastern Shore.

Both reconnaissance-level and intensive-level surveys were made of the five sites. Subsurface testing was supplemented by extensive archival research and environmental analysis.

Survey results indicate minor prehistoric utilization of these areas, leaving little or no archaeological evidence. With the exception of the Cape Charles site, the areas studied offer a limited resource base. In addition, sea level changes and beach erosion have inundated evidence of early prehistoric occupation. If the areas were used by prehistoric peoples, it was probably only on a limited, seasonal basis for exploitation of marine resources.

Archival research has provided location information for historic period occupation of the sites. Historic occupation was also of a limited nature. It consisted of marginal agricultural activities, fishing and hunting camps, and, at Dam Neck, a Coast Guard station and two windmills. However, archaeological evidence is limited for those occupations also. Erosion and dune

migration have been major factors in obliterating archaeological sites on the coast.

Guy G. Weaver, Jr. (Memphis State University)

CHERT UTILIZATION PATTERNS IN THE OUTER NASHVILLE BASIN

This paper will summarize evidence from the Duncan Tract site (40TR27), Hartsville, Tennessee, relating to changing patterns of chert utilization during the Early Archaic through Middle Woodland periods. Local, regional, and exotic chert resources from the site will be discussed along with a slide presentation.

Kit W. Wesler (Murray State University)

PRELIMINARY TESTING AT THE WHITEHAVEN MANSION (15McN65)

The Whitehaven Mansion, just south of Paducah, Kentucky, has been a regional landmark since just before the Civil War. The decision by the Kentucky Department of Transportation to renovate the mansion for a tourist welcome center saved it from becoming a mouldering ruin, and also prompted a brief testing project to evaluate the archaeological potential of the homelot. The tests were designed to recover spatial data that might indicate patterned use of the homelot, and also to identify possible subsurface contexts that might provide insights into life on an early post-bellum plantation in western Kentucky. A preliminary analysis of the test results explores assemblage and spatial patterning at Whitehaven, and provides an initial step toward the establishment of an historical archaeology of western Kentucky.

D. Whitehead (Interagency Archaeological Service)

THE PALEOENVIRONMENTAL PROGRAM OF THE RICHARD B. RUSSELL DAM AND LAKE PROJECT.
See Victor A. Carbone.

Duncan C. Wilkie (Southeast Missouri State University)

PRELIMINARY FINDINGS OF MISSISSIPPIAN OCCUPATION ON THE OZARK ESCARPMENT, MISSOURI

Between 1976 and 1981 testing of the Hunze Village site (23CG8) has revealed some important data on peripheral Mississippian settlement to the larger ceremonial centers in the alluvial bottomlands of southeastern Missouri. Some tentative conclusions about burial practices, subsistence, structures, and

trade connections give some new insights to the existence of Mississippian around A.D. 1300s.

Mark Williams (Lamar Institute)

THE BELL PHASE

Bell phase ceramics appear to be geographically restricted to the piedmont portion of the Oconee River Drainage in northern Georgia. Estimated dates for the Bell phase are from AD 1600 to AD 1680.

The inhabitants of the Upper Oconee Drainage during the Bell phase were survivors of a chiefdom level society which occupied the Oconee Province until AD 1550. While evidence exists for direct historical continuity between the Bell phase and the preceding Dyar phase, the Bell phase clearly shows a decrease in cultural complexity. These changes were most likely effected by contact with Europeans.

As a part of a continuing project by the Lamar Institute, archaeological and historical evidence is employed to document lifeways during the Bell phase and to investigate the effects of European contact on the Lamar peoples of the Oconee province.

Robert C. Wilson (University of Florida)

CERAMIC TECHNOLOGY AND THE TYPING OF UNDECORATED POTTERY FROM SOUTHERN LOUISIANA.
See Teresia R. Lamb.

Deborah Woodiel (Louisiana Office of State Parks)

ARCHAEOLOGICAL PARKS IN LOUISIANA: INTERPRETATION AND MANAGEMENT

The objectives of state parks systems in developing and operating archaeological parks may not be readily apparent to archaeologists from academic or business backgrounds. The day to day management and interpretation of these archaeological sites undertaken by state parks agencies must relate directly to the visitors they serve, and at the same time incorporate sound cultural resources management principles. This paper addresses the ways that the Louisiana Office of State Parks meets this directive, and the problems it encounters in development, interpretation, and management of archaeological parks. The paper also discusses the relationship between Louisiana State Parks and the professional archaeological community and its potential mutual benefits.

Don G. Wyckoff (Oklahoma Archaeological Survey)

THE PACKARD COMPLEX: LITHIC ANALYSIS OF A PRE-DALTON ARCHAIC ASSEMBLAGE ON THE WOODLANDS-PRAIRIE BORDER

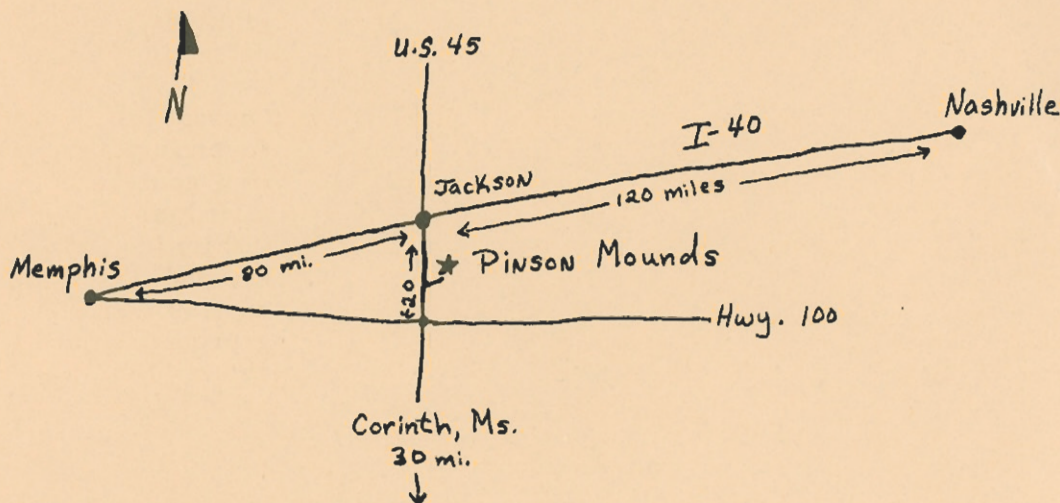
Reservoir salvage excavations in 1962 and 1963 recovered a little publicized Early Archaic assemblage at the Packard site in Mayes County, northeastern Oklahoma. Here, on the west edge of the Ozarks, controlled trenching of a terrace revealed traces of stratified, small, open camps to a depth of 3.8 m. Between 2.59 m and 3.2 m were found numerous flakes and a small assemblage of stone tools scattered around a shallow hearth dated 9416 ± 193 B.P. (NZ-478). Notably, this assemblage lay below deposits yielding typical Dalton points.

Using a lithic reduction model, the 9,400 year-old assemblage, herein referred to as the Packard Complex, was studied for clues to production, maintenance, and use strategies. Consequently, two major knapping goals are identifiable: the occasional production of usable flakes from preliminarily trimmed cobbles and the manufacture of bifaces from cobbles. With thinning and shaping, such bifaces were made into axes, lanceolate spearpoints, and side-notched spearpoints. Biface thinning flakes were selected for use as scraping and cutting implements. Broken bifaces attest to such knapping problems as hinge fractures, end shock, and outre-passe breaks, all of which might collectively be clues to unfamiliarity with the locally available chert cobbles. Most finished bifaces bear witness to resharpening and/or recycling.

The recovered spearpoints are stylistically similar to side-notched and lanceolate forms found separately elsewhere on the Plains-Woodland border and the High Plains. However, the Packard assemblage provides evidence for the early contemporaneity for lanceolate and notched spearpoints. Furthermore, the occurrence in the Ozarks of lanceolate points like those from Package is believed to comprise evidence that the development of Early Archaic cultures in the Southeast may be more complex than is generally preceived.

John Yonk (Anthropology Research Associates)

LOWER CUMBERLAND ARCHAEOLOGICAL PROJECT INVESTIGATIONS AT THE COX SITE (15CA50), CALDWELL COUNTY, KENTUCKY. See Thomas Gatus.



VISIT PINSON MOUNDS

On your way to or from SEAC in Memphis this year, stop by and visit us at Pinson Mounds State Archaeological Area, in Pinson, Tennessee. The site dates to the Middle Woodland period, and has about a dozen mounds. Several are flat-topped ramped mounds, one is 72 feet tall, and there are remnants of a geometric earthwork. REFRESHMENTS WILL BE AVAILABLE. So take a break from your driving, and visit this unique site.