RESEARCH TO DETERMINE CULTURAL AFFILIATION OF NAGPRA REMAINS FROM POMME DE TERRE, SMITHVILLE, STOCKTON, AND TRUMAN LAKES IN MISSOURI

UNITED STATES ARMY CORPS OF ENGINEERS (USACE), KANSAS CITY DISTRICT, KANSAS CITY, MISSOURI

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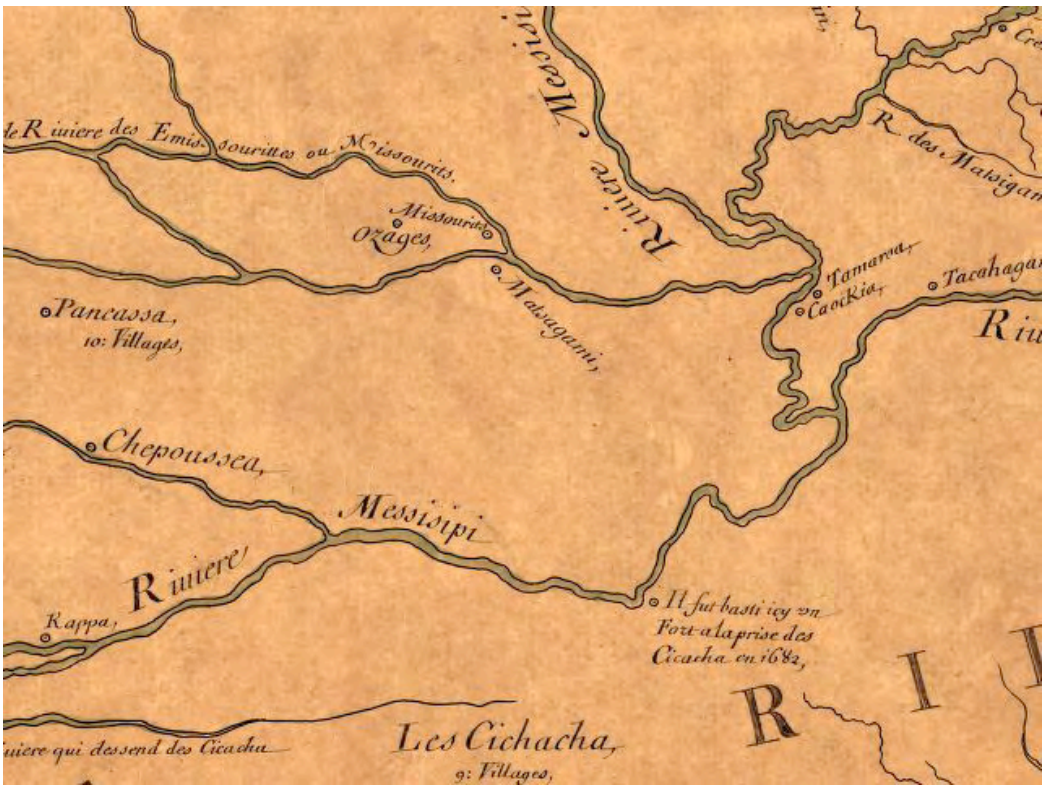
Neal H. Lopinot and R. Bruce McMillan



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Center for Archaeological Research
Missouri State University
Springfield, Missouri

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Cover illustration: Excerpt from *Amerique Septentrion* (1685) map by Jean Baptiste Louis Franquelin.

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ACKNOWLEDGMENTS

This report has been a great pleasure to assemble, particularly in light of the fact that both Ray Wood and Bruce McMillan were available and agreeable to contribute. Both were intimately involved in the work at three of the four reservoirs and their experienced insights into the archaeological and ethnohistorical records are greatly appreciated. This report would have been far less complete without the input of such preeminent scholars as Ray and Bruce.

Tim Meade, Kansas City District archaeologist, and Chris Pulliam, St. Louis District archaeologist, were instrumental in obtaining funding for this undertaking, as well as guiding us through completion of the report. Their support of our efforts is much appreciated. Lastly, Dr. Marcie Venter assisted in the formatting of this report and most importantly in debugging of Microsoft Word's sometimes-quirky unprompted formatting changes. Lastly, Dustin Thompson prepared several figures and also undertook background research in Jefferson City at the State Historic Preservation Office of the Missouri Department of Natural Resources.

Co-Principal Investigators
Neal H. Lopinot
Jack H. Ray

ABSTRACT

This report is the result of research undertaken in an effort to identify the tribal or cultural affiliation(s) of NAGPRA-related materials in USACE collections from the Pomme de Terre, Smithville, Stockton, and Truman reservoirs in western Missouri. Most research focused on primary and secondary published sources including historical maps and documents, ethnohistorical studies, and archaeological reports derived from cultural resource management projects. A large number of human remains and associated and possible associated funerary objects have been recovered as the result of archaeological excavations undertaken in association with the development of the Pomme de Terre, Smithville, Stockton, and Truman reservoirs. These collections are curated at the University of Missouri at Columbia (UMC), Kansas State University (KSU), and Illinois State Museum (ISM).

The collections include the remains of 595 individuals from 104 burial sites. For Pomme de Terre, the collections at UMC contain the remains of a minimum of 30 individuals from 9 burial sites, as well as 1,543 possible associate funerary objects and 50 possible unassociated funerary objects. The Smithville collections at KSU include the remains of a minimum of 25 individuals from a single burial site, the Chester Reeves Mound (23CL108), in addition to 1 associated funerary object and 251 possible funerary objects. For Stockton, the remains of a minimum of 331 individuals were recovered from 50 burial sites. These excavated burial sites consisted primarily of earthen mounds, rock (mostly) cairns, and a few sheltered sites. The analyzed collections at UMC contain 1,110 associated funerary objects, 10,683 possible associated funerary objects, four unassociated funerary objects, and 181 possible unassociated funerary objects. The collections at UMC and ISM for Truman contain the remains of a minimum of 209 individuals from 44 burial sites. The collections at both facilities also include 162 associated funerary objects, 9,462 possible associated funerary objects, 27 unassociated funerary objects, and 2,070 possible unassociated funerary objects.

Efforts to link ancestral prehistoric archaeological entities to specific historic Indian tribes using the direct historical method are a most difficult and, at least for western Missouri, virtually impossible task. This is due primarily to two factors. First, there is a lack of written records dating to the critical sixteenth and early-middle seventeenth centuries that pertain to Native American peoples living in western Missouri. Second, there is a nearly complete absence of Native American archaeological sites dating to this same critical time span. Perhaps foremost among the reasons for the absence of sites in at least western Missouri was the so-called Columbian Exchange, particularly the waves of epidemic diseases that swept throughout North America prior to the presence of European chroniclers. Each new pandemic, whether from malaria, smallpox, measles, typhus, or influenza, may have resulted in an increasingly decimated population and significant adjustments in settlement structure and location (particularly the abandonment of population centers where pandemics would have spread more rampantly), social organization, ritual behavior and burial practices, and nearly all other aspects of human lifeways. The Little Ice Age also may have been another factor of some importance in understanding the demographic and cultural changes attending the late prehistoric through historic time span, at least in northern portions of the midcontinent. Finally, the early acquisition of horses, competition for slaves, an increasing dependence on the fur trade, the rapid assimilation of European technology, and other forms of acculturation also resulted in further changes in settlement type and mobility, economy, religion and other aspects of culture during late Protohistoric and early Historic times. By the time that the first French chroniclers entered the

central Mississippi and lower Missouri valleys, the demographic, social, and political landscapes had been substantially altered.

It is the collective conclusion of everyone involved in this NAGPRA study that all human remains and associated funerary objects are from unaffiliated Native American burials. Our conclusion is based on the evaluation of a variety of evidence, including migration legends, which provides no direct (with a high degree of confidence) links between the prehistoric and historic burials documented herein and specific historic Native American tribal groups.

1. INTRODUCTION

by

Jack H. Ray and Neal H. Lopinot

The Kansas City District of the U.S. Army Corps of Engineers (USACE) is responsible for the maintenance of large collections of archaeological materials that have accumulated during the past 64 years from survey (Phase I), testing (Phase II), and mitigation (Phase III) projects related to the construction and continued operation of four reservoirs in western Missouri: (1) Pomme de Terre, (2) Smithville, (3) Stockton, and (4) Harry S. Truman. Among the curated materials are human remains and associated funerary objects. In compliance with applicable provisions of the Native American Graves Protection and Repatriation Act (NAGPRA), the USACE is required to repatriate human remains and associated grave goods to affiliated Native American tribes.

Due to great antiquity, the bulk of the prehistoric collections that the USACE has accumulated have not been directly associated with existing historic tribes. As a result, these collections have been tentatively determined to be unaffiliated with known tribes. Nevertheless, as part of its obligations under NAGPRA, the USACE is required to make an attempt to determine the cultural affiliation(s) of the human remains and funerary objects. In an effort to remedy this discrepancy, the USACE funded a scholarly background study of historic documents pertaining to known historic tribes in the region and all reports of archaeological investigations in the above-mentioned four reservoir areas. This background review was designed to identify, if possible, the temporal and geographic placement of all Native American groups with an affiliation to properties within the boundaries of the four reservoirs. This information was used to identify all ethnohistoric and existing present-day tribes that could be culturally affiliated with human remains and funerary objects in USACE collections from the Harry S. Truman, Pomme de Terre, Stockton, and Smithville lake areas.

SCOPE OF WORK

Research conducted for this report was prepared in accordance with a Scope of Work provided by the Kansas City District of the USACE. The scope of work outlined three primary objectives.

Objective 1: Conduct background research and archaeological collections from Kansas City District lake projects in the State of Missouri that contain NAGPRA materials.

Objective 2: Assess the information discovered from background research to determine if a cultural affiliation determination can be made for these collections.

Objective 3. Produce a report that outlines methods used during research, results of the research, and cultural affiliation determinations for all collections or, if cultural affiliation determination is not possible, the reasons no such determination is possible.

GOALS OF THE PROJECT

The research undertaken by the Center for Archaeological Research (CAR) at Missouri State University under contract with the USACE (Contract Number: W912HZ–09–2–0026) was conducted to provide the Kansas City District with a sufficient basis for identifying possible tribal or cultural affiliation(s) for NAGPRA-related materials in USACE collections from the Harry S.

Truman, Pomme de Terre, Stockton, and Smithville reservoirs (Figure 1). As specified in 43 CFR 10.2(e), determinations of tribal or cultural affiliation will be based on "the preponderance of evidence—geographical, kinship, biological, archaeological, linguistic, folklore, oral tradition, historical evidence, or other information or expert opinion." Where available and applicable, these lines of evidence were recorded, described, and evaluated.

The research included, but was not limited to, the archaeological record, primary historic documents and maps, and secondary accounts of tribal origins in and around the respective reservoir areas. These reservoirs inundated portions of the Osage, Grand, lower Sac, and lower Pomme de Terre rivers (Harry S. Truman Reservoir); middle Pomme de Terre River (Pomme de Terre Lake); middle Sac River (Stockton Lake); and upper Little Platte River (Smithville Lake). Counties located in the primary study areas include: Bates, Benton, Henry, Hickory, St. Clair, and Vernon (Harry S Truman Reservoir); Hickory and Polk (Pomme de Terre Lake); Cedar, Dade, and Polk (Stockton Lake); and Clay and Clinton (Smithville Lake). Although the specific geographic focus was the four lakes in Missouri managed by the Kansas City District, an assessment of Native American affiliation required a broader panregional time-transgressive approach. This was particularly important due to the frequent movements and changing adaptive strategies of Native American peoples that resulted from direct and indirect contact with Euro-Americans and the waves of epidemic diseases that quickly swept across the North American continent in the sixteenth through eighteenth centuries.

At the time of initial European contact in the eighteenth century, the Osage tribe claimed the territory occupied by the Harry S. Truman, Pomme de Terre, and Stockton lakes, whereas the Ioway, Kansa, Missouria, and Otoe tribes used the area that includes Smithville Lake. During periods of forced migration in the early nineteenth century, other displaced tribes moved through or briefly settled in southwest Missouri. These included the Cherokee, Delaware, Kickapoo, and Shawnee, among the more prominent. In fact, the Kickapoo were given a reservation on the Pomme de Terre and Osage Rivers in Benton and Hickory counties in 1819, an act that was highly contested by the Osage. By treaty in 1832, the Kickapoo were removed from Missouri and assigned another tract of land west of the Missouri River (Houck 1908, Vol. 1:196; Kappler 1903:128). The Sauk and Fox may have passed through the Smithville Lake area during their move to a reservation in northeast Kansas, and many of these displaced groups likely hunted or otherwise visited the various stream valleys where the four lakes occur today.

Research was conducted in the four project areas between October 2009 and May 2010. Neal H. Lopinot, Co-Principal Investigator, provided administration and coordination of research and report preparation. Overall coordination of the project between the CAR and USACE was conducted by Timothy Meade (USACE, Kansas City District) and Chris Pulliam (USACE, St. Louis District). Jack H. Ray, Co-Principal Investigator, and Lopinot compiled sections of the report on prehistoric archaeological context. W. Raymond Wood prepared sections of the report pertaining to early historic Native American tribes in western Missouri during the period of Euro-American contact and early settlement in Missouri. R. Bruce McMillan compiled sections pertaining to Native American tribes in Missouri during protohistoric and early historic times, and to potential links between late prehistoric groups and later historically documented tribes. Dustin A. Thompson and Pamela Burrier prepared figures and tables for the report. The report was formatted and edited by Lopinot and McMillan, with assistance from Marcie Venter.

METHODS

Numerous sources of information were consulted during the research and report preparation stages of the project. Most research focused on primary and secondary published sources, archaeological reports derived from cultural resource management projects, historical maps and

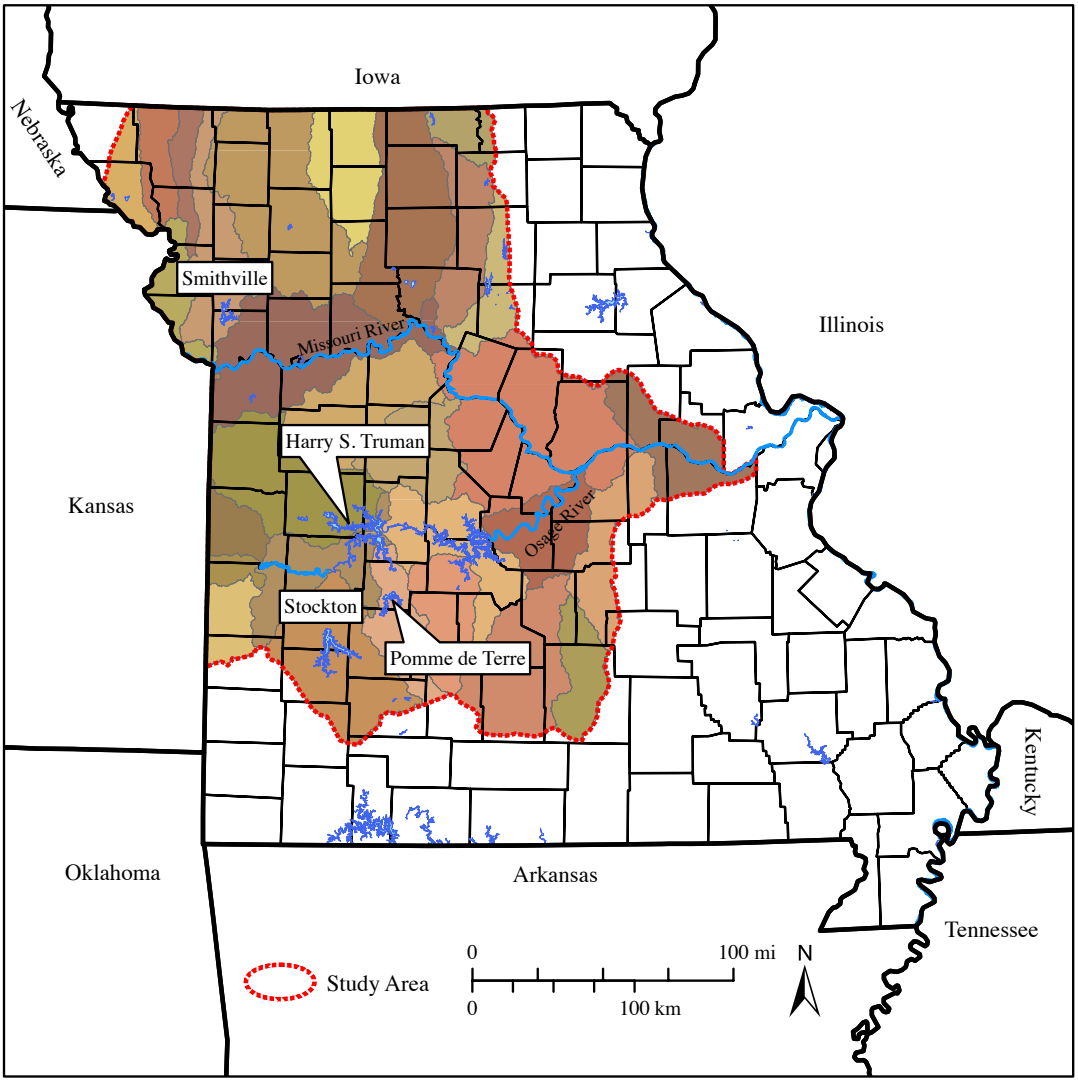

Figure 1. Location of four reservoirs within the Missouri portion of the Kansas City District.

documents, and ethnohistorical studies. Recorded oral traditions of the Osage were taken from the voluminous works of Francis La Flesche, which are cited in the references. Kappler's (1903) compendium of land cessions and treaties was consulted and compared with lands encompassed by the reservoir areas. In addition to the personal libraries of various authors and university holdings, the Internet was used extensively to locate digitized versions of nineteenth-century publications and documents relevant to the task at hand. Attention was focused on those sources pertaining to the four reservoirs and adjacent areas and the historic tribes that were resident within or near the reservoir areas.

2. PREHISTORIC BACKGROUND

by

Jack H. Ray and Neal H. Lopinot

Investigations into Missouri's prehistoric past can be traced back to the early nineteenth century (O'Brien 1996:43–44). Most of these early investigations (some more speculative than scientific) revolved around whether the many earthworks in eastern North America were built by Native Americans or a vanished race of people. The following great debate in the late nineteenth and early twentieth centuries revolved around whether humans were in North America during the last ice age (Pleistocene). Cultural chronologies were established in Missouri and elsewhere in the Midwest during the 1930s through 1960s. These chronologies were greatly aided by the advent of radiocarbon dating in the 1950s. Federal legislation in the 1960s and 1970s established the basis for cultural resource management (CRM) work. CRM work during the past 40 years has culminated in a cultural-historical framework (Table 1) that is utilized in Missouri and much of eastern North America. This section provides a backdrop for much of the known prehistory of the Midwest. However, the focus is on the four federal reservoir areas in western Missouri specified in the scope of work.

PRE-PALEOINDIAN (CA. 30,000–11,500 RCYBP)

The existence of humans in North and South America prior to the Paleoindian period (i.e., prior to 11,500 radiocarbon years before present [rcybp]) is a highly controversial topic. The presence of a culture older than Paleoindian (or pre-Clovis) has been hotly debated for more than a century (Meltzer 1983, 1991), although most of the scientific debate has occurred since the latter half of the twentieth century (Adovasio 1993; Dillehay 1997, Dincauze 1984; Haynes 1969, 1982, 1988; Irving 1985; Krieger 1964; MacNeish 1976; Martin 1973). This issue is still unresolved among most scholars.

For several decades, a Clovis-First model dictated that Clovis peoples were the first humans to enter the New World as they followed migrating megafauna from Siberia to Alaska and down through an ice-free corridor (between the Laurentide and Cordilleran ice sheets) into southern North America. A more recent model suggests that the first Americans (Clovis or earlier) arrived on the continent by Pacific maritime routes along the west coasts of North and South America. An even more controversial model suggests that at least the forbearers of Paleoindian Clovis culture arrived via a North Atlantic maritime route from Europe to Greenland and North America.

The Clovis-First model has been challenged by circumstantial and controversial data from multiple archaeological sites in North America (e.g., Cactus Hill, Hebior, LaSena, Little Salt Spring, Lovewell, Manis, Meadowcroft, Page-Ladson, Paisley Five Mile, and Schaefer) and South America (e.g., Los Toldos, Monte Verde, Piedra Museo, and Taima-Taima) that are purported to be 12,000 rcybp or older. The Clovis-First model also has been challenged by circumstantial linguistic, biophysical, and genetic data. Perhaps the most compelling evidence for a pre-Paleoindian existence in North America comes from the Paisley Five Mile Cave in southcentral Oregon. Multiple human coprolites (paleofeces) from this sheltered site have been radiocarbon dated to >12,200 rcybp (Gilbert et al. 2008). In South America, the most compelling case has been made for Monte Verde where features (including hearths and domestic structures), wooden and bone artifacts, lanceolate unfluted stone spear point fragments, and perishable items were preserved beneath a water-saturated, air-tight layer of peat (Dillehay 1989, 1997).

Table 1. Prehistoric Time Periods for Western Missouri

Stage/Period	Uncalibrated Years B.P. (Before Present)	Years B.C./A.D.
Protohistoric	350–280 B.P.	A.D. 1600–1670
Terminal Prehistoric	650–350 B.P.	A.D. 1300–1600
Mississippian		
Middle Mississippian	800–650 B.P.	A.D. 1150–1300
Early Mississippian	1000–800 B.P.	A.D. 950–1150
Woodland		
Late Woodland	1500–1000 B.P.	A.D. 450–950
Middle Woodland	2200–1500 B.P.	200 B.C.–A.D. 450
Early Woodland	2700–2200 B.P.	700–200 B.C.
Archaic		
Late Archaic	4500–2700 B.P.	2500–700 B.C.
Middle Archaic	7000–4500 B.P.	5000–2500 B.C.
Early Archaic	9800–7000 B.P.	7800–5000 B.C.
Paleoindian		
Late Paleoindian	10,500–9800 B.P.	8500–7800 B.C.
Middle Paleoindian	10,900–10,500 B.P.	8900–8500 B.C.
Early Paleoindian	11,500–10,900 B.P.	9500–8900 B.C.
Pre-Clovis	?20,000–11,500 B.P.	?18,000–9500 B.C.

Radiocarbon ages from charcoal, wooden artifacts, and mastodon bone indicate that Monte Verde was occupied between 12,800 and 12,400 rcybp. Despite findings from the above sites, some proponents of the Clovis-First model point to the nature of stratigraphic contexts, the validity of relative or radiometric dates, possibilities of geochemical or biological contamination, the absence of temporally diagnostic formal tools, and mistaking geofacts for artifacts.

Four sites cited as possible pre-Paleoindian sites are located in the western portion of Missouri. Two are associated with the remains of mastodons. The first is the Grundel mastodon found in loess deposits in Holt County. Charcoal fragments found around scattered mastodon bones were radiocarbon dated to 25,100 ± 2200 rcybp. Although no definitive man-made artifacts were found, Mehl (1966) suggested that a green-bone fracture on a tusk and "stacked" bones were evidence of human activity. However, Carl Chapman and W. Raymond Wood, both of whom assisted with the excavation of the Grundel mastodon remains, were unconvinced of any human association with the proboscidean remains (Chapman 1975:53; O'Brien and Wood 1998:51).

The second is the Miami mastodon found in Saline County. The remains of the Miami mastodon and at least three associated "artifacts" were buried more than 4 m deep in loess deposits (Hamilton 1993:81–83). Fragments of mastodon bone were radiocarbon dated to >35,000 rcybp. The "artifacts" that were reportedly associated with the Miami mastodon were described as a "flaked pebble," a "scraper," and a "scraper or knife" (Hamilton 1993:82). These items were destroyed by a fire at a University of Missouri laboratory and curation facility, but a cast was made of one of the most promising specimens (Hamilton 1993:Figure 2; O'Brien and Wood 1998:Figure 2.16). The authors of this chapter examined this specimen in 1999. This piece of Burlington chert exhibited no bulb of percussion, a smooth undulating ventral surface, no overlapping flake scars on the dorsal surface, nor any other attribute of human manufacture. It appears to be a natural spall produced by freeze-thawing along incipient fracture planes. Hamilton

(1993:85) also noted that two pieces of limestone "about the size of brickbats" were associated with some of the mastodon remains. The presence of limestone fragments in fine-grained, wind-blown loess deposits was cited as additional evidence that the hand-sized rocks had to have been carried to the site. However, the three "artifacts" and limestone fragments could be accounted for by elephant behavior. Elephants have been observed to ingest small rocks as they feed from the ground and pass them many kilometers from where they were (sometimes crushed and) swallowed (Buss 1990:Table 6.1; Haynes 1991:139; Lopinot and Ray 2007:778–779).

The Shriver site (23DV12), located on a bluff in Daviess County in northwest Missouri, is another purported pre-Paleoindian site. A small "flake tool assemblage" was found less than 40 cm below a Woodland assemblage and directly below a horizon containing a fluted (Folsom-like) point, end scrapers, and flake debitage (Reagan et al. 1978). A pre-Paleoindian occupation at the site can be challenged on several fronts. First, despite the claim that many of the pre-Paleoindian unifacial tools represent "forms that are not readily characterized by preexisting typological categories in American archeology," many of the reported tools appear to be noncultural geofacts or naturefacts. Second, the few man-made artifacts that were recovered from the pre-Paleoindian level could have been vertically displaced from the overlying Middle Paleoindian occupation (<5 cm above) by plant or animal (bioturbation) disturbance processes. Third, there are problems and discrepancies regarding the thermoluminescence dating of the Paleoindian and supposed pre-Paleoindian chert artifacts (Reagan et al. 1978; Rowlett 1984:22). Some of these problems are discussed by O'Brien and Wood (1998:38–39). Another problem is that heat-treated chert (from non-hearth contexts) apparently was common in the Paleoindian and pre-Paleoindian horizons, in spite of the fact that there is little or no evidence that Paleoindians in the Midwest ever intentionally heat-treated chipped-stone raw materials (Morrow 1996:98; Ray 1998a:255–257, 2000a:48).

Perhaps the best candidate for a pre-Paleoindian occupation in western Missouri is the Big Eddy site (23CE426), located in the lower Sac River valley in Cedar County, southwest Missouri. Several items have been recovered from radiocarbon-dated, pre-Clovis-age deposits that could be the result of human activity (Lopinot et al. 2000; Ray et al. 2000). The first is a large (18.4 kg) broken possible anvil stone recovered from fine-grained silty clay loam sediments in 1999. The possible anvil stone is a tabular boulder of indurated sandstone with subangular edges. Two fragments of the possible anvil stone were laying flat on the same paleogeomorphic surface at 384 cm below surface (bs). They refit along a sharp angular fracture, but the refit side of the smaller in situ fragment was rotated approximately 120 degrees counterclockwise from the refit side of the larger fragment. A smaller percussion spall, which refits between the two larger fragments, was found partially beneath the smaller fragment. Other attributes suggestive of human modification are a shallow, round pitted area bisected by the fracture that separated the two larger fragments, and a large (9.2 cm wide) negative bulb of percussion scar on one edge of the smaller fragment (Ray et al. 2000:69–70). The broken possible anvil stone is interpreted as evidence of pre-Paleoindian hammering activities, possibly for processing megafaunal bone.

Other intriguing items were recovered from pre-Paleoindian contexts at Big Eddy in 2002 and 2005. One is a cortical bone fragment of a large mammal, possibly bison. The bone fragment is 154 mm long, 5–7 mm thick, and split longitudinally. It was discovered in a sealed context (below a 10–15-cm thick coarse alluvial gravel deposit) at a depth of 387 cm and 28 m northeast of the possible anvil stone. This partially mineralized bone fragment is too degraded for accurate AMS dating or DNA analysis. A second item is a large spall of Burlington chert (17 cm long, 11 cm wide, and 2 cm thick) found lying flat at 385 cm below surface about 1.9 m south of the long bone fragment. The spall has sharp edges (unlike the abraded edges of alluvial-transported rocks) with the exception of a 25-mm long segment along one edge that is lightly rounded and polished

as if created by use wear (e.g., cutting/scraping). Finally, two unmodified sandstone cobbles were found side by side on their edges in a vertical (non-imbricated) position at a depth of 388 cm less than 2 m distant from the bone fragment and large chert spall. Although the several items found in pre-Paleoindian deposits at Big Eddy are tantalizing, none are unequivocal evidence of the presence of humans.

PALEOINDIAN (11,500–9800 RCYBP)

The Paleoindian stage coincides with the final 1500–2000 years of the Pleistocene epoch, transitioning into the early Holocene. It can be divided into Early, Middle, and Late periods. Early and Middle Paleoindian groups appear to have been primarily nomadic and often specialized in hunting large, now-extinct megafauna (e.g., especially mammoth and giant bison, but also mastodon, ground sloth, horse, and camel), although they also undoubtedly supplemented their diet with smaller game, nuts, berries, tubers, and other plant foods. Early and Middle Paleoindian tool assemblages are characterized by distinctive lanceolate fluted points, preform caches, tear-drop-shaped end scrapers that may or may not have spurs, side scrapers, spurred flake gravers, burins, drills, bone needles, and specialized beveled bone implements. Flute scars on Early Paleoindian (Clovis) points are often composite and relatively short compared to later fluted point types. Primary flute scars on Middle Paleoindian (Gainey and Folsom) points are typically longer, wider, and may be accompanied by smaller and narrower guide flutes. The difference in flute size may be related to the removal of channel flutes by direct percussion (Clovis) versus indirect percussion (Gainey and Folsom). The basic socioeconomic group probably consisted of small bands composed of a few nuclear and extended families allied through marriage and resource exchange.

Compared to subsequent periods, Early and Middle Paleoindian sites in western Missouri are sparse and are typically restricted to isolated finds of projectile points/knives found on the surface (Chapman 1975; Dickson 1999; Martin 1976; Ray 2000; Shippee 1964). Fluted points from the Walter site (23HD38) in Howard County (Biggs et al. 1970) and Rodgers Shelter (23BE125) in Benton County (Chapman 1975:Figure 5–1; Kay 1982a, 1982b) have been characterized as Clovis or Clovis-like, but these identifications are controversial. Some investigators believe these points simply represent variation within the Dalton style and are more likely fluted (perhaps early) Dalton points that exhibit little or no resharpening along blade edges (Lopinot and Ray, eds. 2010; O'Brien and Wood 1998:85–86; Ray 1998b:169, 219).

Only four sites with confirmed Early Paleoindian and/or Middle Paleoindian components have been excavated in Missouri, and only two of these are located in the western portion of the state. Excavations at the Shriver site yielded a single small fluted point and at least three spurred and unspurred end scrapers from shallow deposits on a bluff top (Reagan et al. 1978:Figure 2a-d). Several attributes indicate that the fluted point is more typical of Folsom or Middle Paleoindian technology than of Clovis technology (Reagan 1981:18; Reagan et al. 1978:1273). These attributes include length, width, and thickness, full facial fluting, and systematic tertiary (pressure) flaking in the basal concavity and along the lateral margins of the stem and blade.

Extensive excavations at the Big Eddy site have produced multiple Paleoindian components and a suite of associated radiocarbon ages (Lopinot et al., eds. 1998, 2000). Early and Middle Paleoindian artifacts occur in a 35-cm thick horizon between the base of the Late Paleoindian horizon (320 cm bs) and the top of pre-Clovis-age deposits (355 cm bs). Several fluted points and late-stage preforms and a large hearth feature have been documented. At least two fluted point types are clearly represented by nine fluted specimens from Big Eddy. These types are Gainey and Sedgwick, a Folsom variant found in areas bordering the east side of the Plains (Gillam 1996; Morse and Morse 1983; Munson 1990). A Middle Paleoindian component is indicated by the

discovery of two refit fragments of an in situ Gainey point in the upper portion of the Early/Middle Paleoindian horizon only 10 and 11 cm below the horizon containing Dalton and San Patrice points. The in situ Gainey point is associated with a radiocarbon age of 10,710 ± 85 rcybp (AA–26654) obtained from a nearby piece of charcoal. The stratigraphic placement of Sedgwick relative to Gainey, however, is unknown because two Sedgwick points were not found in primary context.

An Early Paleoindian component is based primarily on multiple radiocarbon ages and a hearth. The hearth consisted of a moderate to dense concentration of charcoal and 29 calcined bone fragments (Lopinot and Ray, ed. 2010). Most of the calcined bone fragments were too small and degraded for reliable identification, although a general determination of medium-to-large-size mammal (possibly deer) was made (Lopinot and Ray, ed. 2010). Three samples of wood charcoal from the hearth yielded ages of 10,895 ± 55 rcybp (AA–75720), 10,940 ± 60 rcybp (Beta–230984), and 10,960 ± 55 rcybp (AA–72612). Four more AMS assays from bits of charcoal scattered throughout the Early/Middle Paleoindian horizon are Early Paleoindian in age (Hajic et al. 2000:Table 3.2).

Two sites in eastern Missouri have yielded Clovis artifacts. The Kimmswick site (23JE2), located next to a mineral spring at the base of a limestone bluff, produced the first unequivocal evidence for an association of Early Paleoindian hunters with the American mastodon (Graham et al. 1981; Graham and Kay 1988). Multiple Clovis points and other stone tools were found interspersed among the bones of mastodon, ground sloth, and peccary. The Martens site (23SL222) is located near a large sinkhole and the bluffs of the Missouri River in St. Louis County. Several complete, extensively resharpened or broken Clovis points, failed Clovis point preforms, blade cores, blades, side and end scrapers, and limaces have been recovered from the surface and from excavated subplow-zone contexts (Martens et al. 2004; Morrow 1996, 1998).

Late Paleoindian groups were less nomadic and less specialized, and a greater effort was made to forage for a variety of local forest and prairie resources. By the end of the Paleoindian period, ice-age megafauna were mostly extinct and hunters-gatherers had become adapted to a reliance on modern fauna such as deer, elk, turkey, and an assortment of other animals and plants. If relative numbers of diagnostic artifacts (e.g., Clovis or Gainey points relative to Dalton points) are an indication of population size, then a substantial population increase must have occurred during the Late Paleoindian period in most, if not all, portions of Missouri (Lopinot et al. 1998:295; O'Brien and Wood 1998:73, 92). A significant increase in hunter-gatherers presumably resulted in the reduction of group territories and mobility, and the development of more extensive resource exchange systems. Such a reciprocal system may be reflected by the variety of exotic cherts that appear in the Late Paleoindian lithic assemblage at Big Eddy (Ray 1998a:263–264).

Although Late Paleoindian tool kits contain many of the same tools as Early and Middle Paleoindian tool kits (e.g., spurred and unspurred end scrapers, side scrapers, burins, gravers, and drills), new tools were added such as woodworking adzes, light-duty anvil stones, grinding stones, choppers, and hammerstones. The Late Paleoindian period also witnessed a diversification of projectile point types. Two point types dominate in the western Ozarks of southwest Missouri. They consist of: (1) Dalton points, which are large, thick, fluted or unfluted, lanceolate, and often serrated and/or beveled, and (2) San Patrice points, which are small, thin, fluted points, some of which are corner notched. A wider variety of large, thick, unfluted lanceolate points (e.g., Scottsbluff, Eden, Allen, Hell Gap, Agate Basin, Plainview, and Dalton) may be associated with the Late Paleoindian period in the eastern Plains, which includes portions of westcentral and northwest Missouri. Two sites in the Smithville Lake area reportedly yielded Hell Gap points (P. O'Brien 1977:10, 13; Wright and Schmits 1982:19).

Dalton points are numerous in the southwest and westcentral portions of the state. They also occur in northwest Missouri, but are much less common. Most are surface finds from open-air sites, but several have been recovered from sheltered sites (caves and rockshelters) in southwest Missouri (Chapman 1975:97–105; Ray and Lopinot 2005a). Although Dalton sites are abundant, relatively few have been extensively excavated. An exception is Rodgers Shelter (Kay, ed. 1982; McMillan 1965a, 1971; Wood and McMillan 1976) in the lower Pomme de Terre River valley, now inundated by Truman Reservoir. Rodgers Shelter hosted a long sequence of prehistoric occupations, but the only sediments at the site that were not seriously affected by cultural and natural disturbances were the deepest and oldest deposits in alluvial fill in front of the overhang of the rockshelter. That area yielded exclusively Dalton points and associated tools, calcined bone, and a few discrete hearths (Ahler and McMillan 1976:197). The first reliable radiocarbon ages for Dalton (10,200 ± 330 and 10,530 ± 650 rcybp) came from Stratum I at Rodgers Shelter (Ahler 1976; Goodyear 1982; O'Brien and Wood 1998:79).

At least two contemporaneous Late Paleoindian components have been documented during multiple seasons of fieldwork at the Big Eddy site (Lopinot and Ray, ed. 2010; Lopinot et al., eds. 1998, 2000; Ray et al. 1998) located in the lower Sac River valley just downstream of Stockton Lake. Dalton and San Patrice artifacts were found deeply buried (275–320 cm bs) in a discrete 35–45-cm thick 3Atb horizon. Multiple AMS assays from this horizon bracket the time range for Late Paleoindian use of the Big Eddy site at ca. 10,500–9800 rcybp, with the most intensive activity dating to ca. 10,350–10,100 rcybp (Ray 1998b:199; Lopinot and Ray 2010). Big Eddy served as both a residential base camp and a major workshop during the several hundred years that it was occupied by Late Paleoindians. Domestic or residential use is indicated by numerous bifacial and unifacial tools, processed hematite loci, calcined animal bone, dispersed charcoal, and discrete hearth locations. Workshop use is indicated by abundant and extensive workshop debris scattered throughout the deposits, at least 90 discrete knapping piles, and more than 270 failed or aborted preforms. Big Eddy is by far the largest Late Paleoindian lithic workshop that has been identified in Missouri.

One of the most interesting aspects of the Big Eddy site is the apparent spatial segregation of Dalton and San Patrice occupation areas. Whereas there is some overlap in the middle, the vast majority of Dalton points and preforms were collected from the southern part of the site, whereas the vast majority of San Patrice points and preforms came from the northern part of the site. The site has been characterized as a possible Late Paleoindian rendezvous site where generally nonresident San Patrice peoples may have established a sustained settlement in a region otherwise dominated by Dalton groups (Ray 1998a:264; Lopinot and Ray 2010).

ARCHAIC (9800–2700 RCYBP)

Many changes took place during the length of great time (ca. 7100 years) comprising the Archaic stage. A radical shift from moderate post-glacial conditions to a much warmer, drier interval, and back to a moderate climate similar to that of today resulted in concomitant shifts in adaptive subsistence strategies and lithic technologies. Human populations adapted to a more broad-based economy with a more intensive exploitation of local plants and animals. Archaic groups are typically thought of as semi-nomadic hunter-gatherers, but some later Archaic populations were characterized by considerable sedentariness and the initiation of food-production activities. Tool kits became much more diverse in response to the creation of new subsistence strategies. In general, population density increased substantially and territories diminished even further. The Archaic stage is traditionally divided into three periods based on these evolving economies and associated tool kits.

Early Archaic (9800–7000 rcybp)

The Early Archaic period approximates the time span from the end of the Pleistocene epoch to the height of the Hypsithermal interval. A milder climate similar to that of today initially prevailed over much of the Midwest, enabling the establishment of a mixed deciduous forest through the Ozarks and adjacent areas. A mosaic of forests and prairies characterized northwest Missouri. Ground-stone tools used for plant-food processing begin to appear. This is a likely indication of an increased emphasis on new plant resources, or at least a change in technology from one stressing the use of perishable plant-processing tools to one of greater use of nonperishable materials. Early Archaic open-air sites are generally located in bottomland (terraces) and upland (ridges) settings and usually yield large quantities of lithic debris and chipped-stone tools. The occupation of cave and rockshelter sites was common by Early Archaic times, especially during the colder portions of the year. The driest of these sheltered sites have provided important information on perishable materials and the use of native plants and animals.

The Early Archaic period witnessed the appearance of a wide array of projectile points/knives, including corner-notched, side-notched, and stemmed varieties. Bevels and serrations are attributes that first appear on the blades of many projectile points/knife types during the beginning of the Early Archaic period and disappear at the end of the period. These blade modifications are believed to have been associated with specialized, heavy-duty sawing or cutting activities (Ahler 1971:119–120). The practice of heat-treating stone to improve knapping quality first appears in western Missouri at the end of the Early Archaic period (Ray 2007a:48). Like Paleoindian points, the hafts of Early Archaic points continued to be intentionally ground, presumably to prevent sharp stem edges from cutting sinew or twine that bound the points to the hafts.

Southwest Missouri. Large-scale excavations in the Pomme de Terre River Valley (Rodgers Shelter) and Sac River valley (Big Eddy) have yielded significant data on Early Archaic occupations. Some of the most intensive occupations at Rodgers Shelter occurred between 9500 and 7000 rcybp, when the shelter frequently served as a base camp (Kay, ed. 1982; Wood and McMillan 1976). Graham Cave, Rice Lobed, Hidden Valley, Searcy, and Jakie points were among the most common diagnostic Early Archaic point types that were recovered. One of the early products of the investigations at Rodgers Shelter was the recognition that large hafted bifaces often served duel functions as both projectiles and knives (Ahler 1971). Unfortunately, biogenic and anthropogenic mixing of the deposits beneath the overhang at Rodgers Shelter precluded the segregation of discrete cultural components from among the aggregates and complexes of Early Archaic point types (Kay 1982a:544–547). Although deer remained an important part of the diet, subsistence procurement appears to emphasized smaller game, especially squirrels and rabbits, to a greater extent (McMillan 1971, 1976).

Although occupied repeatedly during the Early Archaic period, the Big Eddy site served more as field camp than base camp. Rapid aggradation of alluvial sediments during this time created a series of well dated, stratified, and isolated cultural deposits in which multiple Early Archaic components were identified. This process resulted in the preservation of single-component deposits largely uncontaminated by artifacts from earlier and later components. With very few exceptions, only one diagnostic point type is associated with a particular component. These single-component deposits provided a more precise Archaic projectile point chronology for westcentral and southwest Missouri than was previously possible (Lopinot et al. 2005; Ray et al. 2009). At least eight recognizable Early Archaic components are represented at Big Eddy (Ray et al. 2009:160–171). From oldest to youngest they are Packard, Breckenridge, Scottsbluff, Cache River, Graham Cave, Rice Lobed, Hidden Valley, and Searcy. Six of these represent cultural manifestations that are indigenous to southwest Missouri, whereas two (Scottsbluff and Cache

River) represent manifestations that are more common outside the Ozarks. Although Big Eddy provided clarity to the chronology of point types in southwest Missouri, the site provided little information regarding food procurement due to poor preservation of animal and plant remains.

Northwest Missouri. Little data is available on Early Archaic manifestations in northwest Missouri. Only a few sites with Early Archaic points have been reported in areas surrounding Smithville Lake, none of which have been excavated. In comparison to the Ozarks, relatively few point types are associated with the Early Archaic period in northwest Missouri. These include Scottsbluff, Hardin, and Graham Cave (Chapman 1975:135; O'Brien and Wood 1998:124). Due to the dearth of information for northwest Missouri, settlement-subsistence patterns are poorly understood, and no Early Archaic complexes or phases have been proposed for the region.

Middle Archaic (7000–4500 rcybp)

The Middle Archaic period is typically associated with the Hypsithermal (or Altithermal) Interval, which is a mid-Holocene climatic episode that is marked by overall warmer and drier conditions. This climatic shift resulted in changes in the composition and distribution of plant and animal communities, which resulted in the development of new adaptive strategies. Oak-hickory forests were replaced by grassland prairies in level upland areas in the Ozarks. This transition in plant communities was accompanied by the expansion of prairie fauna such as prairie chicken, badger, jackrabbit, pronghorn antelope, and bison (McMillan 1976; McMillan and Wood 1976; Parmalee et al. 1976). The effects of Hypsithermal conditions on the environment and humans have been documented at Rodgers Shelter (Kay, ed. 1982; King and Lindsey 1976; McMillan and Klippel 1981; Wood and McMillan 1976). The onset of the Hypsithermal may have begun shortly before 8000 rcybp, but the warmer and drier conditions did not peak until approximately 6500–4500 rcybp in the lower Sac River valley (Hajic et al. 1998:Figure 7.13).

The development of an extensive ground-stone industry, shifts in chipped-stone technology, and changes in settlement and subsistence are hallmarks of the Middle Archaic period in western Missouri. Ground-stone technology first appeared in the latter part of the Early Archaic period (Alex 2000:66; Chapman 1975:152), but it expanded with many new forms in the Middle Archaic period. Full-grooved axes, used for heavy-duty cutting purposes, appear for the first time. In northwest and westcentral Missouri, these heavy-duty cutting tools were pecked and ground from igneous till cobbles. In the Ozarks of southwest Missouri, full-grooved axes were frequently chipped and ground from silty dolostone (locally called "cottonrock") or fine-grained hematite. Other ground-stone tools include atlatl weights, celts, pitted stones, manos, fishing weights, and stone beads (Chapman 1975).

Southwest Missouri. Three points types are generally associated with the Middle Archaic period in the Ozarks. The bifurcated-based Jakie, which first appeared in the latter part of the Early Archaic, continued into the early part of the Middle Archaic period. A side-notched form variously called White River, Raddatz, or Big Sandy was used during the middle part, and basal-notched points called Calf Creek appear for the first time in the latter part. Unlike Early Archaic points, the blades of these projectile points/knives were resharpened bifacially and are not beveled. Although first appearing during Early Archaic times, the application of heat to preforms to improve knappability was perfected and became commonplace during the Middle Archaic period (Ray et al. 2009:173).

Some have proposed that Middle Archaic populations became concentrated and settled in multiseasonal base camps or permanent habitations in major river valleys with a concomitant general abandonment of upland areas (J. Brown and Vierra 1983:167; O'Brien and Wood 1998:52). In many parts of the western Ozarks, there is evidence of changes in settlement patterns

involving partial abandonment and/or substantial population decline. When compared to underlying and overlying deposits, Middle Archaic deposits in caves and rockshelters (e.g., Rodgers Shelter, John Paul Cave, and Albertson Shelter) are sparse to nonexistent (Dickson 2002; Kay, ed. 1982; Wood and McMillan 1976; Ray 1995, 1997). Relatively little human activity also appears to have occurred at the Big Eddy site (Ray 1998b:140, 2005:217–222) and the paucity of Middle Archaic points at other sites in the Sac River valley (Ray and Lopinot 2005a) suggests that changes in settlement were valley wide. Subsistence practices also apparently became even more diversified. The recovery of several notched flat cobble net weights from a Middle Archaic base camp on the upper White River indicates that fish may have become an important food source (Lopinot and Ray 1996). At Rodgers Shelter, Middle Archaic groups focused even more on the procurement of small mammals, such as squirrels and rabbits, than on deer (McMillan 1976:225).

Northwest Missouri. As for the preceding Early Archaic period, there is little information on Middle Archaic sites in the Smithville Lake or adjacent areas (McNerney et al. 1993:38; Wright and Schmits 1982:25). The only indications of occasional Middle Archaic occupations are a few side-notched points (Martin 1976:18). Schmits and Bailey (1989) defined two Middle Archaic phases based on his work in the central Little Blue River valley in Jackson County, Missouri, south of the Missouri River. The Blue Springs phase is early Middle Archaic (ca. 6660–6580 ± 120 rcybp) and is characterized by small side-notched points. The Jacomo phase is late Middle Archaic (ca. 5590–5550 rcybp) and is characterized by medium to large corner-notched points with expanding stems and a few straight-stemmed variants.

Late Archaic (4500–2700 rcybp)

The Late Archaic period is associated with the return to more mesic climatic conditions after the close of the Hypsithermal Interval. These conditions permitted the re-expansion of forests and diminishment of prairies in upland locations in the western Ozarks. Based on relative numbers of sites and projectile points/knives, the Ozarks contained larger human populations during the Late Archaic period than during the preceding or succeeding periods. Late Archaic sites are found in nearly every topographic position, although the largest sites tend to be located in the larger stream valleys and around perennial springs. A proliferation of corner-notched and basal-notched points may reflect a combination of increasing localization of regional cultural entities and a heightened pace of cultural change (Lopinot 1998:42). Subsistence strategies based on a more diverse array of resources than apparent in Middle Archaic times was adopted in many parts of the midcontinent (Ford 1974).

Wild nut resources, including hickory, pecan, walnut, and acorn, were extensively exploited along with fruits such as persimmon and wild grapes (Ray et al. 2009:178). Some of the best evidence for early plant domestication comes from Late Archaic contexts in the western Ozarks. Squash and bottle gourd were discovered at Phillips Spring in the Pomme de Terre River valley (Chomko and Crawford 1978; Kay et al. 1980). Squash remains also were recovered from Late Archaic contexts at Big Eddy in the Sac River valley (Powell and Lopinot 2005). Seeds from other native plants that were undergoing the process of domestication during Late Archaic times included sunflower, chenopod, sumpweed, and perhaps giant ragweed. The cultivation of these plants required plot preparation, planting, protecting, and harvesting, and is indicative of more sedentary lifeways.

Southwest Missouri. Ceremonial structures that served as interments for the dead appear for the first time in the Ozarks during the latter part of the Late Archaic period. Remains associated with Afton points were found in two mounds. A shallow rectangular pit excavated into a natural mound or hummock at the Colline Burial site (23PO305) contained the remains of a partially

cremated adult, an Afton point, and a few other chipped-stone artifacts (Wood 1985:18–19). An artificial rock-and-earth mound (Holbert Bridge, 23HI135) contained a bundle burial, 25 Afton points, seven unclassifiable point fragments, and several other chipped-stone artifacts (Wood 1961:48–51).

Deep alluvial deposits at Big Eddy contained one of the clearest stratified sequences of Late Archaic deposits in the Ozarks. At least four Late Archaic components were identified. From earliest to latest, they are Smith-Etley, Williams, Kings, and Afton (Ray and Lopinot 2005b:156–212). Each component is represented by a stratigraphically distinct cultural deposit containing only one point type, or two technologically similar point types in the case of the Smith-Etley component.

Four Late Archaic phases have been defined for the northern Ozarks and adjacent areas. Three (Sedalia, Titterington, and Smetley) appear to be contemporaneous (ca. 4200–3700 rcybp), but spatially separated across the Ozarks. Chapman (1975:200–203, 224) proposed a Sedalia phase characterized primarily by long lanceolate projectile points/knives, Clear Fork gouges, and chipped-stone adzes ("Sedalia diggers"). Sedalia base camps are located on ridge summits. This phase is centered in Pettis County and surrounding areas in westcentral Missouri. The Titterington phase (Cook 1976) is characterized by long corner-notched to square-stemmed Etley points, Wadlow preforms, adzes, and three-quarter-grooved axes. This phase in centered in western Illinois and eastern Missouri. The recently identified Smetley phase (Ray and Lopinot 2005b:194–201) is characterized by large broad-bladed Smith points, Etley points, and chipped-stone adzes. Smetley base camps are typically located in bottomland contexts, often near stream confluences and springs. This phase is centered in the Sac River and Pomme de Terre river valleys and adjacent areas in southwest Missouri. Based on his work at the Phillips Spring site, Kay (1983) extended the range of the Sedalia phase into the Pomme de Terre River valley, but the majority of the assemblage from Phillips Spring appears to conform more closely with that of the Smetley phase at Big Eddy than with Sedalia-phase assemblages to the north (Ray et al. 2009:183).

The fourth Late Archaic (Sac) phase was identified at the Big Eddy site (Ray and Lopinot 2005b:208–212). Although the Sac phase overlaps the Smetley phase spatially and temporally, it is technological distinct from it and other regional Late Archaic phases. The phase is based on a single-component assemblage (Williams component) in a discrete 30-cm thick midden. The diagnostic artifact is the corner-notched Williams point. Unlike tools associated with the Smetley phase, bifaces associated with the Sac phase are almost always heat treated. The Sac phase may range between approximately 4100 and 3600 rcybp. Unlike the Nebo Hill phase (see below), no pottery has been associated with the Sedalia, Titterington, Smetley, or Sac phases.

Northwest Missouri. Nebo Hill is the only Late Archaic phase that has been defined for the greater Kansas City area and northwest Missouri (Reeder 1980; Reid 1980, 1983, 1984). This phase was first believed to represent a Paleoindian or Early Archaic manifestation (Shippee 1948), but radiocarbon ages from the type site (23CL11) and other Nebo Hill sites revealed that it is Late Archaic (Reeder 1980, 1981; Reid 1980, 1983). Several artifacts characterize the Nebo Hill phase. They include narrow, thick, lanceolate Nebo Hill points; bifacial hoes and/or gouges (probable adzes); three-quarter-grooved axes; celts; and fiber-tempered pottery (Reid 1983:14–17). The temper consists primarily of shredded plant fiber with occasional grog fragments. Although uncommon, this fiber-tempered pottery is the earliest known pottery in the Midwest.

Nebo Hill populations hunted deer and small game and gathered nuts and wild seeds (Reid 1983:34). The proposed settlement pattern includes large, high-density sites on ridge summits during the warm months and small, low-density sites on stream terraces during the colder months

(Martin 1976; Reeder 1981; Reid 1983). Large corner-notched Etley and side-notched Osceola (or Hemphill) points made from exotic Burlington chert have been recovered from several mortuary and cache sites in northwest Missouri (Reid 1983:20–23); however, their function and any association with Nebo Hill are uncertain.

WOODLAND (2700–1000 RCYBP)

The Woodland stage was traditionally regarded as a time when horticulture, burial mounds, and especially ceramics first appeared; however, discoveries during the past 50 years indicate that each of these activities first appeared during the Late Archaic period in the Ozarks and bordering regions (see above and Chapman 1980:2–6). Nevertheless, widespread development and consistent use of ceramics, horticulture, and burial mounds did not occur in the Midwest until the Woodland stage. Ceramics were plain or cord marked and tempered with grit, limestone, sand, or grog (crushed sherds of broken pottery vessels). The bow and arrow were added to the weaponry late during the Woodland stage. In general, it is believed that the largely hunter-gatherer lifeway established during the Archaic stage continued into at least the earliest portion of the Woodland stage in the Ozarks.

Early Woodland (2700–2200 rcybp)

Early Woodland in the Midwest is characterized by Marion and Black Sand manifestations. Marion has been documented primarily from sites in Illinois and is characterized by thick cord-marked (or fabric-impressed) pottery and straight-stemmed Kramer points (Emerson 1986; Munson 1986). Neither the pottery nor the point type is common in Missouri except along the Mississippi River north of St. Louis. Black Sand pottery is predominantly sand-tempered and cord-marked and is occasionally decorated with incised lines, punctations, and nodes (Martin 1997). Black Sand projectile points/knives are contracting-stemmed with rounded (and sometimes pointed), straight, or concave bases.

Southwest Missouri. An Early Woodland presence in the Ozarks is meager at best (O'Brien and Wood 1998:170). Chapman (1980:9–10) noted very little, if any, real evidence of Early Woodland sites in the Southwest Drainage, Western Prairie, or Ozark Highland regions and suggested that Late Archaic lifestyles persisted into the Early Woodland time frame. As an alternate hypothesis, Chapman (1980:9) suggested that the Ozarks may have been used in Early Woodland times in a manner similar to how the Ozarks were exploited during the early historic period. The Osage used the Ozarks on occasion, but it was primarily for hunting and gathering rather than for permanent occupation.

Northwest Missouri. The bulk of evidence for Early Woodland presence in Missouri comes from the occasional recovery of Black Sand ceramics from sites in the Missouri River valley and adjacent portions of northwest and northeast Missouri (Chapman 1980:10–20; Martin 1997:23–78; O'Brien and Wood 1998:182). The greatest concentrations of known Black Sand sites are along the Missouri River east of Kansas City and in the Big Bend area. Unfortunately, no radiocarbon ages are associated with sites in either area. Thus, assignment to the Early Woodland period is based on diagnostic artifacts and cross dating with sites east of the Mississippi River that have associated radiocarbon ages.

A survey of the Fishing River drainage basin resulted in the identification of 29 sites with contracting-stemmed points and Black Sand pottery (Martin 1976, 1997). The main site in this drainage basin with the bulk of the diagnostic points (n=69) and pottery (n=71) is the Crowley site (23CL129) (Martin 1997:26–34). The primary Early Woodland site in the Big Bend area is Backes (23SA447), which produced primarily contracting-stemmed points with straight bases and

sand-tempered cord-marked pottery (Martin 1997:44–58). Another site with both Early Woodland and Middle Woodland artifacts is the Narron site (23SA191). Unlike contracting-stemmed Woodland points in the Ozarks, the majority (approximately three-fourths) of the blades of points associated with Black Sand pottery at Crowley, Backes, and Narron are alternately beveled. Based on Martin's (1997) overview, known Early Woodland settlements appear to be concentrated on alluvial terraces of the Missouri River and tributary streams.

A Bowlin phase, purported to be Early Woodland, was proposed for the Little Blue River drainage basin in Jackson County, Missouri (Schmits and Bailey 1989:231–232; Wright 1980). The phase is based on assemblages that are unlike Black Sand assemblages. Bowlin phase assemblages include sand-tempered plain and cord-marked pottery, primarily corner-notched projectile points/knives, and radiocarbon ages that range from 2455 ± 80 rcybp to 1850 ± 140 rcybp (Martin 1997:41). However, a contracting-stemmed point and cord-marked sand-tempered sherds from the Traff site (23JA159) were also included in the Bowlin phase.

Middle Woodland (2200–1500 rcybp)

Middle Woodland sites are more abundant than Early Woodland over most parts of Missouri (Chapman 1980). Peoples of the Middle Woodland period in Missouri were greatly influenced by Hopewellian peoples to the east. Exotic materials (e.g., obsidian, copper, mica, effigy stone pipes, and marine shells) and stylistic concepts were exchanged among Hopewellian affiliates, a system previously referred to as the Hopewell Interaction Sphere (Caldwell 1964; Struever 1964). Common ceramic decorations include cord marking, dentate stamping, punch and boss, incised crosshatching, punctating, and rocker stamping, sometimes in combination.

A western variation of classic Illinois and Ohio Hopewell is documented at four locations in Missouri. These regional centers include: (1) Havana along the Mississippi River in northeast Missouri, (2) Big Bend in Saline, Carroll, and Cooper counties, (3) Kansas City along the Missouri River east and west of Kansas City, and (4) Cooper along the Neosho River in northeast Oklahoma and possibly extending into northwest Arkansas, southwest Missouri, and southeast Kansas. Hopewell-like components in southeast Kansas have been grouped into a phase called Cuesta, which may be related to Kansas City Hopewell or possibly the Cooper center (Brogan 1981; Marshall 1972; Witty 1999). There has been an extended debate about whether these western Middle Woodland centers represent: (1) the migration of Hopewell peoples from east of the Mississippi River, (2) trade of Hopewell artifacts to western groups, or (3) the adoption of Hopewell artifact styles and ideas by unrelated western groups (Chapman 1980; Johnson 1979; Kay and Johnson 1977; O'Brien and Wood 1998).

The Kansas City, Big Bend, and Cooper centers have been described in detail elsewhere (Chapman 1980:22–47; O'Brien and Wood 1998:192–196). Each will be briefly reviewed, but the focus here is on an apparent, heretofore, unrecognized Middle Woodland center located in the lower Sac River valley and adjacent areas (between the Big Bend and Cooper centers).

Southwest Missouri. The Cooper site and a few other sites in Cherokee and Delaware counties in northeast Oklahoma produced pottery types (e.g., Cooper Zone Stamped, Ozark Zone Stamped, Cow Skin Dentate Stamped, and Honey Creek Plain) with decorations similar to Middle Woodland ceramics from the Kansas City, Big Bend, and Illinois centers (Bell and Baerreis 1951; Griffin 1946). Although similar in design, Cooper Zone Stamped and Ozark Zone Stamped differ in that the former is tempered with coarse grit (crushed limestone and chert), whereas the latter is tempered with grog or grit-and-grog. The limited amount of decorated Middle Woodland pottery and other Hopewellian artifacts that were known for southwest Missouri led Chapman (1980:26) to extend the Cooper center into southwest Missouri. He also suggested that the scant Middle

Woodland evidence there represents trade or incidental travel or hunting expeditions through the area. A distinction between the Cuesta phase in southeast Kansas and the Cooper phase in northeast Oklahoma is dubious, given their proximity, poorly known chronologies, and general similarities of artifact assemblages (Logan 2006:82; P. O'Brien 1984:45).

The notion that contracting-stemmed projectile points/knives are markers of the Early Woodland period (Emerson 1986:624; Martin 1997:87–89) does not hold up in the western Ozarks. Middle Woodland radiocarbon ages have been associated with contracting-stemmed points at several sites in southwest Missouri. Contracting-stemmed points in the southwestern Ozarks, previously referred to as Gary and Langtry (Chapman 1980:308–310), are now referred to as Standlee (Sandstrom and Ray 2004:58–59). Standlee appears to be a regional correlate of the Dickson type defined for Illinois (Justice 1987:190–191). Standlee differs from Dickson (and Gary) in that the base of the contracting-stemmed Standlee is generally concave rather than straight or convex. Standlee points are well represented in the Middle Woodland Fourche Maline phase in the Ouachita Mountains and Arkansas River valley (Galm 1984:214).

Several Middle Woodland sites have been documented in southwest Missouri since Chapman's (1980) overview and are summarized below. Most of these are in contract reports and are not well known. The evidence suggests that at least two, apparently contemporaneous Middle Woodland components are represented in southwest Missouri: (1) one associated with corner-notched Snyders points, and (2) one associated with contracting-stemmed Standlee points. It is possible that contracting-stemmed points represent an indigenous earlier Middle Woodland manifestation and corner-notched (Snyders) points represent an intrusive later Hopewellian manifestation. At present, variations in decorations and surface treatment of pottery and pottery temper have not been tied directly to either point type or component.

Deposits at Boney Spring in the Pomme de Terre River valley that contained contracting-stemmed (Standlee/Dickson) points in association with sand-tempered and limestone-tempered pottery yielded three radiocarbon ages between 1920 ± 50 and 1900 ± 80 rcybp (Wood 1976:100–102). A Middle Woodland component also was present at nearby Blackwell Cave based on plain and cord-marked pottery wares tempered with limestone and grit along with Snyders and Standlee points (Wood 1961:52–60). At John Paul Cave (23CN758), a radiocarbon age of 1890 ± 50 rcybp was obtained from Level 9, which produced nine Standlee points and one Snyders point (Ray 1995:40). One plain, grit-tempered pottery sherd, three Standlee points, and one Lander (Affinis Synders) point were recovered from the overlying level. Horizons II and III at Cobb Cave (23CN71) also contained substantial Middle Woodland deposits. Three of four radiocarbon ages from these two strata ranged between 2180 ± 120 and 1795 ± 110 rcybp (Benn and Lopinot 1993:56–58). The two horizons are dominated by cord-marked sherds with grit, grit-sand, sand, grog, and limestone tempers, and by Standlee, Snyders, and Landers (Affinis Snyders) points (Benn and Lopinot 1993:66, Tables 1 and 6).

Middle Woodland burials have been documented in various contexts throughout southwest Missouri. Two Middle Woodland burials were found in rockshelters in southwest Missouri. At Little Indian Rockshelter (23SN921), a Standlee point was found in the burial pit of a juvenile placed on its right side in a flexed position. The burial was dated to 1880 ± 60 rcybp (Ray 1994a:20). An infant also was interred on its right side in a flexed position at Great Spirit Rockshelter (23SN866); a contracting-stemmed (Standlee) point was found in the pit with the burial (Ray 1994b:42–45).

Five Middle Woodland burials have been found in alluvial terraces in southwest Missouri. One poorly preserved burial was discovered at the Patterson Spring site (23CN64) in Christian County (Turner and Benn 1986:21). The burial occurred in a dark midden deposit. Although no

burial pit outline was delineated, artifacts found in proximity to the burial consisted of a ceramic pipe, a small basalt axe, and a scatter of siltstone and limestone rocks. The pipe is a simple platform type similar to pipes found at sites in the Big Bend area (Chapman 1980:Figure 3.15), with the exception that the front (stem) and rear portions of the platform are more rounded than flattened. The bowl is straight-sided, but the upper portion appears to have been broken and reshaped by beveling a new lip. The clay was tempered with crushed chert, limestone, and grog. All of the 28 pottery sherds from the site are plain and tempered with chert, sand, and grog. Based on relative numbers of point types (including 21 Snyders and 19 Standlee), the Patterson Spring site "was most intensively occupied during the Late Archaic and [later] Woodland periods" (Turner and Benn 1986:27). A radiocarbon age of 1580 ± 50 rcybp was obtained from a hearth at the site (Turner and Benn 1986:21).

A second Middle Woodland burial was discovered at the Buried Beneath site (23GR539) in Greene County (McGrath et al. 1988:52–68). The skeleton was in a tightly flexed position on its right side in an oblong burial pit. A Snyders point was located on the left hip and a round flat limestone slab covered the burial. The upper portion of the burial pit contained several pottery sherds from a single vessel, flakes, limestone rocks, and chert cobbles. One hundred and seventy cord-marked (including smoothed-over cord-marked) limestone-tempered sherds from a single vessel were found within or adjacent to the burial pit. It was originally a large, probably conoidal vessel with slightly constricted neck, steep shoulder, and sharply rounded base (McGrath et al. 1988:115). The ware is unnamed. In addition to the Snyders point found with the burial, eight more Snyders points and a Snyders preform were later recovered from the Buried Beneath site as the site was monitored during sewer-line construction (Ray 1993:20–24).

Site 23JP164 next to the Spring River in Jasper County contained two burials (Sturdevant 1986). One was on its right side in a tightly flexed position. The other was badly decomposed, but also appeared to be in a flexed position. Neither had grave goods. A large quantity of pottery in the vicinity of the burials included plain and cord-marked globular jars with conoidal bases. Temper was identified as grit-and-grog and grit-and-limestone. Decorations included punctations and punch-and-boss nodes (Sturdevant 1986:77). Complicating the temporal affiliation of much of the pottery is the fact that the site has yielded Middle Woodland (1640 ± 80 rcybp) and Late Woodland (1230 ± 140 rcybp) radiocarbon ages (Sturdevant 1986:141) and Middle Woodland (Snyders and Standlee) and Late Woodland (Rice Side Notched) point types. Nevertheless, at least some of the decorated pottery is very similar to Cooper (or Ozark) Zone Stamped (Sturdevant 1986:98–105).

The final excavated Middle Woodland burial was discovered at the Bryan Jones site (23CE235) in an eroding cutbank of the Sac River, approximately 4.4–4.6 m below ground surface (Ray 2007b). The individual was placed on its left side in a tightly flexed position. Only the dorsal half of the skeleton was in situ. The entire length of the skeleton was underlain by a 2–3 cm thick layer of red ochre (hematite powder). Fill in the burial pit that overlay the skeleton contained moderate amounts of red ochre, charcoal, burned clay, and one small flake fragment. Samples of charred plant material collected from the burial pit directly above the burial produced three radiocarbon ages between 2210 ± 40 and 2120 ± 40 rcybp.

The lower Sac River valley (i.e., Downstream Stockton) is an area in southwest Missouri where Middle Woodland sites appear to be concentrated. This area along a relatively small river on the prairie-woodlands border (and adjacent streams) may represent a Hopewellian center distinct from Cooper and other Missouri centers. Middle Woodland sites with pottery also occur along the Sac and Little Sac rivers upstream of this area (Klinger et al. 1993:300–302), but the upper Sac River valley has not been studied as intensively as the Downstream Stockton area. At least 21 sites in the Downstream Stockton area have produced diagnostic Middle Woodland

artifacts (Ray and Lopinot 2005a:Table 4.2). Eighteen have yielded contracting stemmed (N=14) points and/or Snyders points (N=13). Typically, a site will contain predominantly contracting-stemmed points (e.g., 23CE25, 23CE324, 3CE412, and 23CE527) or Snyders points (23CE238 and 23CE239), but there currently is not enough data to determine if one or more types of pottery are predominantly associated with either contracting-stemmed or corner-notched points. Eleven sites have yielded pottery. Most of these sites contain plain (undecorated) pottery tempered with grit, grog, and/or grit-and-grog. Three sites contained grit-and-grog-tempered cord-marked pottery, and two sites contained Ozarks Zoned Stamped pottery. Although more work is needed to clarify this proposition, the confluence of the Sac River and Bear Creek appears to have been a focal point for Middle Woodland groups. Apparent base camps are 23CE412, 23CE238 (and adjacent 23CE239), and 23CE235 (and adjacent 23CE324), located within 1.7 km of each other.

In addition to the above Middle Woodland sites with diagnostic points and pottery, three sites in the Downstream Stockton area have yielded obsidian artifacts (Ray 2007a:331–332). They include: 23CE238, which contained many Snyders points; 23CE15/258, located near 23CE235; and 23CE408, located 5.3 km northwest of 23CE235. The three obsidian artifacts from the lower Sac River valley equal the number of obsidian artifacts that have been recovered from the Kansas City area and triple the number of known obsidian artifacts from the Big Bend area (Ray 2007a:332). Sites in the midcontinent that have yielded obsidian artifacts have previously been associated with major ceremonial centers or large village sites (Griffin 1965).

Thirteen radiocarbon ages have been obtained from Middle Woodland sites in southwest Missouri. Eleven radiocarbon ages from Bryan Jones, Cobb Cave, Boney Spring, John Paul Cave, and Little Indian Rockshelter are contemporaneous with Early Havana and Middle Havana in Illinois (ca. 2200–1750 rcybp). Radiocarbon ages from Patterson Spring and 23JP164 are contemporaneous with Late Havana. On average, these radiocarbon ages from southwest Missouri appear to be slightly younger than those from the Big Bend and Kansas City centers (Chapman 1980:269–270).

Ceramic collections from several open-air and sheltered sites revealed a modest Middle Woodland presence in the Truman Lake area (Roper 1993:664). These included pottery sherds with Havana-like decorations and the occasional cross-hatched rim sherd. Middle Woodland sites were reported to be clustered in two areas: (1) the "Tebo Creek area," which is where three large streams (Tebo Creek, Grand River, and Osage River) converge, and (2) the upper reaches of the Osage River basin. Unfortunately, excavations in the Truman Lake area failed to isolate Middle Woodland components, provide additional settlement-subsistence data, or produce radiocarbon ages.

Data are lacking regarding Middle Woodland settlement and subsistence patterns in southwest Missouri, partly because very few Middle Woodland base camps have been properly excavated and partly because there have been no comprehensive surveys of upland areas. However, based on the data at hand, it appears that the largest and multiseasonal camps were located in valleys, primarily along the main stems of rivers and their largest tributaries. Seasonal camps were located in sheltered sites in upland areas for the exploitation of upland plant and animal resources. Flexed burials (predominantly on the right side) were placed in alluvial terraces and rockshelters. There are no documented Middle Woodland burial mounds in southwest Missouri. Interaction-sphere-type artifacts include obsidian artifacts, platform pipes, and Havana-tradition pottery such as Ozark Zone Stamped. Subsistence data are scanty. The most common plant remains found at 23JP164 were maygrass and chenopod, with small amounts of other plant remains including two maize fragments (Sturdevant 1986:Table 7). However, this site had a Late Woodland component in addition to a Middle Woodland component, and the associations of plant materials with one or the other component are dubious.

Northwest Missouri. Sites that have yielded Hopewellian artifacts in the Kansas City area were first recognized by Wedel (1943). They have been referred to as Kansas City Hopewell. Among other Hopewellian artifacts, these sites have yielded cord-marked, zone-stamped, and cross-hatched pottery with rounded bottoms, anthropomorphic clay figurines, Snyders points, stone pendants, copper artifacts, and obsidian flakes (Chapman 1980). Subsistence was thought to have been based primarily on hunting, gathering, and fishing, but recent evidence from a Middle Woodland component at Fort Osage in Jackson County indicates a substantial reliance on starchy seed cultivation (Powell 2009). Mortuary practices include primary and secondary (cremated) burials in earthen mounds (with stone-lined interiors) located on ridge summits. Sites were located on terraces of the Missouri River or on terraces along the lower reaches of major tributaries. Some of the well-known sites in the Kansas City area include Renner, Trowbridge, Young, Deister, Shields, Aker, Babcock, and Bishop. Smaller dispersed Middle Woodland sites have been documented north and south of the Missouri River. Several Middle Woodland sites also have been recorded in the Smithville Lake (Wright and Schmits 1982:27) and Fishing River areas (Martin 1976), and at least one site (Black Belly) in Jackson County, Missouri produced contracting-stemmed points and a Middle Woodland radiocarbon age of 1620 ± 45 rcybp (Schmits and Reust 1981).

The Big Bend center includes a cluster of sites along the Missouri River and the lower reaches of the Chariton and Grand rivers (e.g., Fisher-Gabert, Givens, Hiatt, Stoner, Wakenda, and Woolem) and at least two sites near the mouth of the Lamine River (e.g., Mellor and Imhoff). Kay's (1975a, 1975b) statistical analyses of pottery and projectile points suggested that sites near the Chariton and Grand rivers differed from those along the lower reach of the Lamine River and, therefore, that two separate centers existed in the Big Bend area. Chapman (1980:39–47) discussed at least three Middle Woodland phases for the Big Bend center: Lamine, Wakenda, and Mellor. Pottery styles (e.g., Havana Zoned Stamped, Naples Stamped) in the Big Bend center are similar to those in Illinois, although the majority of radiocarbon ages appear to be later than those in Illinois (O'Brien and Wood 1998:194). Lithic artifacts include Snyders and Snyders-like points, bone pins, drilled canines and shark teeth, clay ear spools, and platform pipes (Chapman 1975). Burials were in mounds that do not have stone-lined chambers. In addition to sites on terraces, at least two sites in the Big Bend area (Fisher-Gabert and Givens) are in upland settings.

Late Woodland (1500–1000 rcybp)

The Late Woodland period is marked by the appearance of new technologies. One of these is bow-and-arrow technology, which arrived in the Ozarks by at least ca. 1400 rcybp, whether by diffusion or innovation. Although this new weaponry appeared on the scene and spread quickly, large hafted bifaces (e.g., Montgomery, Rice Side Notched, and Cupp) continued to be used as dart points and/or knives. Potters also began experimenting with the use of crushed shell as temper, first in combination with sand, grit, and limestone, and later with shell alone. Elaborate decorations of some varieties of Middle Woodland pottery gave way to less elaborate plain or smooth-over cord-roughened wares. The persistence of certain arrow and dart points and shell-tempered pottery into Mississippian times often confounds attempts at differentiating Late Woodland from Early Mississippian and later components. In the absence of radiocarbon ages, therefore, it is common in southwest Missouri to use Late Woodland/Mississippian terminology for temporal or component association.

Southwest Missouri. No phases have been proposed for the Late Woodland period in southwest Missouri (Ray and Lopinot 2008). Hafted projectile points found in rockshelters and open-air sites throughout this area (including Stockton and Truman lakes) consist of a variety of arrow points and dart points/knives (Benn and Ray 1996; Ray 1997; Ray and Benn 1989, 1992; Ray and Lopinot 2005a; Roper 1993:664). Arrow points are generally dominated by the corner-notched

Scallorn type with smaller numbers of side-notched (Reed, Haskell, and Morris) types. Dart points include Cupp (Chapman 1980:307-308; Sandstrom and Ray 2004:21), Rice Side Notched, and a large contracting-stemmed form called Montgomery. Montgomery was proposed to replace Table Rock Pointed Stem (in Missouri) and Gary A (in Arkansas and Oklahoma) to reduce confusion with the Late Archaic Table Rock Stemmed type (Sandstrom and Ray 2004:54–55) and multiple varieties of the Gary type that span the Early Woodland through Early Mississippian. Compared to earlier contracting stemmed points (e.g., Waubesa and Standlee), Montgomery is thicker and the base tapers to a point.

Excavations at numerous sheltered and open-air sites in the Table Rock Lake area and other portions of southwest Missouri have produced plain and cord-marked pottery with various types and combinations of tempers such as grit, sand, limestone, grog, calcite, and shell (Benn and Lopinot 1993:65–67; Chapman 1980:79–80; Ray 1988; Ray and Benn 1992:128–132). The late component at the Prospect Spring site (23GR711), dated by one radiocarbon assay to 1200 ± 50 rcybp, was interpreted as "a manifestation of a pre-Caddoan, indigenous Late Woodland population, a distinctive regional variety of a Late Woodland culture pattern that extended throughout the Ozarks" (Benn and Ray 1996:69). Prospect Spring potters produced plain and smoothed-over cord-marked ceramics that were predominantly shell tempered and calcite tempered; however, they also experimented with combinations of shell and limestone, shell and calcite, and calcite and limestone (Benn and Ray 1996:Table 1).

Burial tumuli are scattered throughout southwest Missouri and generally are of two forms: rock cairns and mounds composed of a combination of earth-and-rock fill. They were placed in prominent upland settings, usually on ridge tops and bluffs overlooking major stream valleys. They occur singularly or in small groups (usually <5). Most are circular and measure between 5 and 10 m in width and 20 to 70 cm in height. Human remains were interred in the cairns and mounds in a variety of ways. Secondary burials (e.g., bundle, broadcast, and cremation) were the primary mode of internment, but primary extended or flexed inhumations also occur (O'Brien and Wood 1998:263; Wood and Brock 1984:115, 2000:63).

Burial tumuli are most common north of the Ozarks Divide, i.e., north of Springfield (Ray 1990:15–17; Wood 1961, 1967; Wood and Brock 1984, 2000; Wood and Pangborn 1968a), but they also occur south of the Ozarks Divide (Henning and Pangborn 1960:816–817; Marshall 1956:20–33, 1960:821). Few have been adequately investigated and aged. Most have been categorized as Late Woodland, but the few dates that are available range from terminal Late Woodland to the early Mississippian times (Chapman 1980:80; O'Brien and Wood 1998:262–271; Wood and Brock 1984:115–119). Additional radiocarbon dating of organics from these rock cairns and mounds is needed to establish an adequate temporal ordering of the burial tumuli in southwest Missouri.

Rock cairns and mounds located on the north side of the Ozarks Divide have been grouped into two named burial complexes—Fristoe and Bolivar. The Fristoe Burial Complex is largely confined to the Pomme de Terre River basin (Wood 1961, 1967), whereas the Bolivar Burial Complex is confined to the Sac River basin (Wood and Brock 1984). They appear to be roughly contemporaneous and their artifact inventories exhibit some similarities. A few additional burial mounds in the Stockton Reservoir area (Wood and Brock 2000) are believed to be slightly younger than the burial mounds in the Fristoe and Bolivar complexes.

A wide range of utilitarian and nonutilitarian grave offerings has been found in late prehistoric burial mounds (Chapman 1980; O'Brien and Wood 1998:265–267; Wood 1961, 1967; Wood and Brock 1984, 2000). Many of the utilitarian artifacts mirror those found at habitation sites. Corner-notched Scallorn arrow points are the most common projectile point type, but a

variety of side-notched arrowheads (e.g., Reed, Morris, Haskell, Huffaker), and dart points (especially Rice Side Notched, Cupp, and Montgomery) also occur. Round and flat-based pottery vessels are smooth or cord-marked. Most vessels are tempered with shell or limestone, but grog, calcite, and sand tempers also occur. Other artifacts include: shell beads, pendants, and gorgets; bone beads, awls, pins, and spatulas; ceramic and stone pipes and earspools; and ground-stone items such as celts, manos, faceted hematite, and hammerstones. Compared to Middle Woodland times, there appears to have been a reduction in interregional trade of exotic raw materials. Exotic items are primarily beads made from *Marginella*, *Olivella*, and *Leptoxis* (formerly *Anculosa)* shells. Carbonized plant remains include cultivated (maize, squash, chenopod, maygrass, sunflower, marshelder) and wild (hickory nuts, walnuts, acorns, hazelnuts) foodstuffs.

The primary postulated Late Woodland economy consisted of diversified hunting and gathering supplemented by native seed horticulture (Benn and Ray 1996:68–69). Large numbers of sites in both upland and bottomland locations suggest greater exploitation of regional resources and larger populations than during earlier and later time periods (except perhaps for the Late Archaic). However, few large permanent settlements with domestic structures have been found and excavated. Circular and oval post mold patterns at the nonceramic Flycatcher (Pangborn et al. 1971) and Dryocopus (Calabrese et al. 1969:39) sites at Stockton Lake were interpreted as Late Woodland houses. The presence of multiple associated Late Archaic and Early-Middle Woodland dart points and a few arrow points indicates the deposits at Dryocopus were mixed and multicomponent. Diagnostic artifacts dominated by large contracting-stemmed (Montgomery) projectile points/knives found at Flycatcher (Pangborn et al. 1971:Figures 9–11) indicate a near single-component Late Woodland assemblage likely associated with the circular house patterns. The mixed-component Shady Grove site produced plain and cord-marked limestone-tempered pottery, Rice Side Notched dart points, and Reed arrow points, as well as earlier (Archaic) and later diagnostic artifacts (Chapman 1980:86).

Northwest Missouri. Compared to southwest Missouri, there is only meager data for the Late Woodland period in the Smithville Lake and Kansas City areas. The size and number of Late Woodland sites in these areas are markedly smaller than preceding and succeeding periods. With the possible exception of the Missouri River valley and adjacent areas, the greater Kansas City area and northwest Missouri appear to have been occupied intermittently by only small groups of seminomadic Late Woodland peoples that lived in temporary campsites, not permanent villages (Chapman 1980:110).

The Late Woodland period in the Kansas City area was subdivided into early Late Woodland and late Late Woodland by Johnson (1983). He viewed early Late Woodland as a continuation and eventual termination of Kansas City Hopewell. Early Late Woodland was characterized by plain sand-tempered ceramics and subtriangular dart points. The late Late Woodland was characterized by the appearance of small corner-notched arrow points and higher frequencies of cord-marked pottery.

Schmits and Bailey (1989:233–234) later identified two Late Woodland phases in the Little Blue River valley in Jackson County. The earlier Woods Chapel phase is represented by sand-tempered plain pottery, Steuben points, and oval-shaped houses with interior hearths and pits. The Lake City phase is represented by grit- (or grog- or sand-) tempered plain or cord-marked pottery and Scallorn arrow points. Limited data on Late Woodland in northwest Missouri precludes characterizing settlement-subsistence patterns.

MISSISSIPPIAN (1000–650 RCYBP)

As indicated earlier, there is considerable overlap in the material culture of Late Woodland and Mississippian societies in western Missouri. Some of the overlap appears to be real (e.g., the persistence of certain pottery styles and projectile point types), whereas some of the overlap may reflect artifact assemblages being recovered from mixed deposits within caves and rockshelters, the recovery of artifacts from special-use facilities such as burial mounds rather than stratified open-air habitation sites, and generally insufficient information to adequately delineate separate archaeological entities in time and space. Nevertheless, there are cultural adaptations that distinguish Mississippian from Late Woodland in most areas. In the Mississippi River valley and throughout much of the Southeast, the Mississippian period is a time of major population expansion, establishment of permanent villages, and increasing social complexity.

By about 1000 rcybp, indigenous Late Woodland populations in western Missouri began to adapt to influences from cultures to the south and east. They began to adopt many of their settlement-subsistence practices as well as many of their tools. The farming practices of Late Woodland times intensified during the Mississippian period. A substantial increase in food production, including a growing emphasis on maize cultivation, may have helped support the development of complex societies. Shell replaced other temper types as pottery became thinner and stronger, and bow-and-arrow technology essentially replaced the atlatl.

Southwest Missouri. About one thousand years ago, there appears to have been an influx of people and new ideas and artifacts into southwest Missouri, primarily from the Caddo-controlled Arkansas River valley to the south. The Arkansas River valley and southwestern Ozarks are generally regarded as a northern extension of the core Caddo cultural tradition located along the Red River and Ouachita River valleys in southwest Arkansas, northwest Louisiana, and southeast Oklahoma (Perttula 1992; Wyckoff 1980). Early Caddoan manifestations in the Arkansas River valley and the southwestern Ozarks are marked by the emergence of new forms of social and ritual activities at special (mound) sites, as well as the appearance of new ceramic technology with ties to contemporary groups in the Arkansas River valley.

For southwest Missouri, Ray and Lopinot (2008) used the term Caddoan Mississippian to reflect the level of Caddo influences on local Ozark inhabitants during the Mississippian period. These marginal Mississippian peoples lacked the fortified civic-ceremonial centers with platform mounds arranged around a central plaza, elaborate decorated pottery, and cult objects associated with the Southeastern Ceremonial complex found along and east of the lower Mississippi River valley. Caddoan Mississippian in the southwestern Ozarks is divided into early and middle subperiods of approximately 200 years each (Ray and Lopinot 2008). Diagnostic artifacts that are most characteristic of early and middle Caddoan Mississippian are shell-tempered Woodward Plain (Reed variety) pottery, Rice Side Notched and Montgomery dart points/knives, and various corner- and side-notched arrow points, including Scallorn, Reed, Haskell, and Morris.

Early Caddoan Mississippian is perhaps best represented by the Harlan phase, which Bell (1984:221) placed at 1050–750 rcybp. The Harlan site in Cherokee County, Oklahoma is the type site. It is a mound complex site that appears to have served as a mortuary ceremonial center (Bell 1984:229). Other early Caddoan-Mississippian mound centers include Lillie Creek, Reed, Pineville, Brackett and Goforth-Saindon, and Parris. Contemporary open-air base camps and field camps include School Land I and II, Huffaker, Jensen, and Houston (Sabo and Early 1990:87–88). Houses were square with four central posts and an extended entryway. The evidence regarding Harlan-phase subsistence is scant. There is some evidence for the cultivation of maize and cucurbits and the procurement of various animals, especially deer and bison (Sabo and Early 1990:88), but there is an overall lack of good data on subsistence. Increased trade and exchange

of items made from exotic raw materials (e.g., conch shell, copper, trade wares, and exotic cherts) help set the Harlan phase apart from earlier Late Woodland manifestations (Bell 1984:228). Concomitant with increased trade was the possible expansion of the Harlan phase into new areas, especially northward into the eastern portion of the Central Plains and the western portions of the Ozarks (Bell 1984:239). Some trade items of early Caddoan manufacture (e.g., marine shell, earspools, and Spiro Engraved vessels) made their way north of the Ozarks Divide into mounds and rockshelters in the Sac River valley (Perttula 1989; Wood and Pangborn 1968a).

Roughly contemporaneous with the Harlan phase was the Loftin phase, centered in the upper White River valley of southwest Missouri and northwest Arkansas. The type site is Loftin (23SN42), located at the confluence of the White and James rivers in Stone County, Missouri (Chapman 1980:141–142; Perttula 1983). This mound site had one submound rectangular structure and multiple outlying square houses with two or four central posts (Reeder 1983). The latter are similar in design to mortuary structures at Harlan (Bell 1984:229–230). The Vaughn I (23SN203) and Cantrell I (23SN389) village sites also were used to help define the phase. At least two other mound sites, Huntsville and Collins, have components that can be assigned to the Loftin phase (Sabo and Early 1990:96). Radiocarbon ages of between A.D. 1000 and 1180 were obtained from the Loftin site (Perttula 1983:48–49) and Huntsville site (Kay et al. 1989:148). The presence of maize and other cultigens (e.g., squash and domesticated chenopod, sunflower, and presumably maygrass) at Loftin and Huntsville, as well as at some sheltered sites (Fritz 1986; Harvey 1962; Powell 2001) indicates that food production was quite important, supplemented by the intensive exploitation of wild native plants (especially hickory nuts, acorns, and some fleshy fruits) and animals (particularly white-tailed deer). Ceramics of the Loftin phase include Woodward Plain from Loftin and an incised Caddoan bowl from Vaughn I (Chapman 1980:141–148). Rice Side Notched and Montgomery (Table Rock Pointed Stem) dart points/knives were the most common projectile points/knives (Neusius 1983:Figures 13–14). Arrow points include Reed and triangular forms that may represent unnotched Reed preforms.

Another early Caddoan-Mississippian mound site is the Pineville site (23MD46), located on a large terrace approximately 500 m southeast of the confluence of Big Sugar and Little Sugar creeks and the beginning of the Elk River in McDonald County, Missouri. Very little is known about this site. Most view the Pineville site as one of several civic-ceremonial sites designed to integrate local populations into a cohesive unit in the northern Caddoan culture area (J. Brown 1984a; Kay et al. 1989; Perttula 1983, 1989; Sabo and Early 1990; Wyckoff 1980). Limited excavations at Pineville mound in conjunction with preservation efforts penetrated midden deposits at the northeast corner of the mound and yielded a small artifact assemblage and the first radiocarbon age (880 ± 40 rcybp) obtained for the site (Ray 1996:12–19). It is tempting to view Pineville as an intermediate center between the Reed site on the west and the Loftin site on the east, but its proximity to Reed and the greater distance to Loftin suggest it was more likely associated with the Harlan phase. Undiscovered hamlets or villages in the bottomlands of the Elk River, Big Sugar Creek, and/or Little Sugar Creek probably supported the Pineville site. Single or extended family units occupying local rockshelters, such as Bontke Shelter and Henson Shelter, also may have contributed support.

Middle Caddoan Mississippian (ca. 800–650 rcybp) is a continuation of earlier Caddoan, but with more elaborate ceremonialism and material goods. However, there appears to have been a contraction of regional populations around select ceremonial centers. In northeast Oklahoma, this subperiod of Caddoan Mississippian is represented by the Spiro phase. Spiro-phase sites occur primarily in the floodplain of the Arkansas River valley and its main tributaries (Poteau, Neosho, and Illinois) in eastern Oklahoma (J. Brown 1984a:241). The largest civic-ceremonial centers were Spiro on the Arkansas River and Norman on the lower Neosho. These large centers were

apparently supported by populations living in small outlying villages, hamlets, and farmsteads. Subsistence appears to mirror that of early Caddoan Mississippian with an emphasis on various cultigens and native plants and animals. Corner- and side-notched arrow points and pointed-stemmed knives continued to be manufactured as hunting and butchering tools, but alternately beveled Harahey forms appear for the first time (J. Brown 1984a:246). Ceramics are dominated by the Woodward series (including Woodward Applique) and a red- or black-slipped companion ware called Poteau Plain. Trade continued on a wide scale to far-reaching areas such as the Red River valley, the Texas panhandle, the Memphis area on the Mississippi River, the Shawnee Hills of southern Illinois, western Tennessee, and the southern Appalachians (J. Brown 1984a:252–254). Lithic raw materials from the southwestern Ozarks included silicified siltstone (or Atoka argillite) for digging tools and possibly chert from the Peoria area of extreme northeast Oklahoma (J. Brown 1984a:246, 253).

Few residential sites contemporary with the Spiro phase have been found in the southwestern Ozarks. Nevertheless, at least three rockshelters in southwest Missouri have produced radiocarbon dates contemporary with middle Caddoan-Mississippian times (ca. 790–720 rcybp). Jenkins Cave (23CN711) yielded two plain shell-tempered pottery sherds, four side-notched arrow points (Haskell, Reed, and Morris), two triangular arrow points or arrow point preforms, a mussel shell scraper, a fragment of a stone pulley-shaped earspool, and a modified chunk of calcite (Ray and Benn 1992:79–82). The upper levels of Slow Drip Rockshelter (23SN777) produced one shell-tempered pottery sherd and at least three corner- and side-notched (Scallorn and/or Reed) arrow points (Ray 1992:42–55). Henson Shelter (23MD148) produced corner-notched (Scallorn) and side-notched (Reed and Haskell) arrow points, Montgomery dart points, drills, and a small quantity of shell-tempered pottery (Ray 2006a:88–117).

Contemporary open-air sites dating to middle Caddoan-Mississippian times also have been reported for southwest Missouri, although they are few in number. For example, the open-air Walnut Shade site (23TA708) in northern Taney County produced three radiocarbon ages dating between 800–750 rcybp (Conner, ed. 2004:Table 4). Ceramics were predominantly shell tempered and typical of the Woodward Plain type. One small earthen burial mound at the Ingram site (23GR46) near Springfield produced pottery tempered with calcite, sand, and chert, as well as fragments of a shell-tempered hooded water bottle (Douthit 1981:356–364). The hooded water bottle may be indicative of trade or contact with groups living in the Mississippi River valley to the east or southeast.

Pomona represents a Middle Ceramic complex adapted to the Plains environment. It appears to be roughly contemporaneous with Caddoan Mississippian. Pomona is a relatively poorly defined focus (or variant) located in eastern Kansas and western Missouri, extending from the Flint Hills to the upper Osage River valley and the tailwaters of Truman Lake (K. Brown 1985; Roper 2006:124–125; Witty 1967, 1981). Pomona houses were typically small, oval, and constructed of a light frame covered with mud and grasses (pole-and-thatch). They typically lacked central hearths, but had interior storage pits. Houses were typically constructed in bottomland settings and occurred individually, in small groups of two or three, and occasionally comprised a village. Subsistence patterns have not been well documented.

Pomona pottery vessels are small jars with globular bodies. They are generally cord marked but sometimes plain, and they are predominantly tempered with grog and in some cases shell or crushed bone. Lithic artifacts include triangular notched and unnotched arrow points, end scrapers, chipped-stone and ground-stone celts, and grooved sandstone abraders (Witty 1981:80). Conspicuously absent are diamond-shaped and beveled knives so common in Central Plains tradition assemblages (Roper 2006:124).

The temporal range of Pomona does not appear to be well established, spanning approximately six to eight centuries (ca. 1250–350 rcybp) with radiocarbon ages clustered around 200 years at either end of the range (Roper 2006:124; Witty 1981:81). The origin of Pomona may lie in eastern Plains Woodland (K. Brown 1985). Johnson (1991) proposed that the descendants of Pomona may be the Kansa, but this proposition has not been adequately studied (O'Brien and Wood 1995:69).

Northwest Missouri. Three largely contemporaneous cultural complexes or phases in northwest Missouri also appear to be contemporary with middle Caddoan Mississippian in southwest Missouri. These consist of Steed-Kisker (Chapman 1980:156–161; P. O'Brien 1978; Shippee 1972; Wedel 1943), Nebraska (Blakeslee and Caldwell 1979), and May Brook (K. Brown 1981; Schmits 1982). If these three phases and nearby Pomona represent distinct groups, then they appear to have been on friendly terms because of the apparent exchange of material items and the lack of fortified villages (Logan 1988:21).

The origin of Steed-Kisker is somewhat controversial, primarily because it exhibits attributes that are characteristic of both the Mississippian tradition at Cahokia and the Central Plains tradition in the Missouri Valley north and west of Kansas City. Apparent links to the Mississippian tradition are house structure (rectangular post and trench) and ceramics (shell-tempered with incised decorations on shoulders). These attributes led to the early proposition that Steed-Kisker represents a migration of Mississippian peoples up the Missouri River to the Kansas City area (Chapman 1952; Shippee 1972; Wedel 1943), a theory that more recently has been extensively criticized and dismissed (Angelbeck et al. 2001; O'Brien and Wood 1998; Roper 2006). The alternative explanation involves the influence of diffused Mississippian traits on indigenous peoples by trade and the movement of ideas rather than the resettlement of a foreign population (Henning 1967; Logan 1996).

The Steed-Kisker phase appears to be centered along the Missouri River in Platte and Clay counties, Missouri, but it extends north to the vicinity of St. Joseph and eastward into the Little Platte River valley. At least 36 Steed-Kisker components have been identified in the Smithville Lake area (Wright and Schmits 1982:29). Although some radiocarbon ages suggest a longer time span, the bulk indicate that Steed-Kisker dates to ca. 950–700 rcybp (O'Brien and Wood 1998:275). Since the initial discovery of Mississippian artifacts at the Steed-Kisker site at the mouth of the Platte River (Wedel 1943), several other sites have been affiliated with the phase including villages at Gresham, Friend and Foe, Butcher, McClaron, Cloverdale, W. W. Young, Zacharias, Katz, and Crabtree, and mounds at Vandiver, Avondale, and Shepard (Angelbeck et al. 2001; Calabrese 1969; Chapman 1980; Logan 1996; Shippee 1972).

The Steed-Kisker settlement system consists of small villages and dispersed farmsteads. They are typically located in the valleys of tributary streams of the Missouri River, although Calabrese (1969) suggested that sites also occur on bluff tops overlooking the Missouri River and its tributaries. The Butcher and Friend and Foe sites at Smithville Lake are located in the valley of the Little Platte River approximately 30 km east of the Missouri River. Two types of houses are associated with Steed-Kisker. One is subrectangular and semisubterranean with an elongated entryway (earth lodge) similar to Nebraska-phase houses. The other type is a rectangular structure with post-trench walls. The roofs of both house types were generally supported with two-to-four center posts and central hearths, and storage pits were located inside the structure. The dead were placed in hillside cemeteries or in low earthen mounds, generally in flexed or extended supine positions.

Although some pottery found on Steed-Kisker sites is sand- or grit-tempered and cord marked, most consists of shell-tempered Platte Valley Plain ware (Calabrese 1969:69–74;

Chapman 1980:159). Chapman (1980:297) separated decorated shell-tempered ware with incised rectilinear and curvilinear designs on the upper shoulder into Steed-Kisker Incised. Vessel types include jars, bowls, long-necked water bottles, and miniatures. Appendages include loop handles and effigies. Pipes were made from clay and stone. Diagnostic Steed-Kisker projectiles include triangular notched and unnotched arrow points, which have various names depending on whether they occur in the eastern Plains (i.e., Washita, Harrell, Huffaker, and Fresno) or Mississippi River valley (i.e., Cahokia Double Notched, Cahokia Triple Notched, Cahokia Multiple Notched, and Madison). Other lithic artifacts include beveled knives, end scrapers, sandstone abraders, and ground-stone celts. A high percentage of Burlington chert in chipped-stone tools at the Crabtree and Katz sites (Angelbeck et al. 2001:45–46) suggests that this nonlocal (Ozarks) chert resource was important to Steed-Kisker knappers.

Steed-Kisker peoples were primarily sedentary farmers who depended in large part on growing cultigens (maize, maygrass, chenopod, squash, beans, marshelder, sunflower, and tobacco), but also on gathering wild starchy seeds, nuts, and berries and on hunting deer, bison, and other small mammals (Angelbeck et al. 2001:66–88; P. O'Brien 1984:57). A relative lack of animal bones at village sites may be due to poor preservation conditions, or it may be due in part to hunting and butchering practices. Planned hunting expeditions and concomitant butchering activities may have taken place at sites far from village locations. An example of a Steed-Kisker hunting-butchering station appears to be Vista Shelter in southeast St. Clair County, Missouri (Wood 1968). Other sites in the lower Sac River valley with Huffaker and Harrell (Cahokia) arrow points (Ray and Lopinot 2005a) may represent additional Steed-Kisker hunting camps in southwest Missouri.

Roughly contemporaneous with Steed-Kisker is the Nebraska phase (Blakeslee and Caldwell 1979). This phase is centered along the Missouri River valley from St. Joseph, Missouri to Sioux City, Iowa and northeast Nebraska. Krause (1969) subdivided the portion of the Nebraska phase in northwest Missouri and adjacent areas into the Doniphan phase. Nebraska-phase houses are subrectangular and semisubterranean and were typically placed in upland locations along the Missouri River and its tributaries.

Nebraska-phase artifact assemblages are characterized by sand- and grit-tempered globular jars with everted or collared rims that may have handles or nodes and triangular notched and unnotched arrow points. Small percentages of shell-tempered pottery with incised lines on shoulders may indicate trade with nearby Steed-Kisker groups. South of St. Joseph, Nebraska-phase sites merge with and are difficult to distinguish from Steed-Kisker-phase sites. O'Brien and Wood (1998:276) suggested that a continuum existed between the Nebraska and Steed-Kisker phases in the vicinity of St. Joseph, with grit-tempered, cord-marked pottery being more common on sites north of St. Joseph and plain, shell-tempered pottery more common south of St. Joseph. The age range for the Nebraska phase is 900–525 rcybp (Blakeslee and Caldwell 1979:112).

The definition of the May Brook phase is based on artifact assemblages recovered from several sites located in the Little Blue River valley of Jackson County, Missouri. Primary among these are the Seven Acres (K. Brown 1981) and May Brook sites (Schmits 1982), but Schmits included Black Belly, Bowlin Bridge, and Bike Track Shelter in the phase. The May Brook phase is characterized by cord-marked and plain grog- and shell-tempered globular pottery vessels with straight rims and triangular notched and unnotched arrow points (e.g., Washita, Harrell, Huffaker, and Fresno). The recovery of these arrow point types in the same stratigraphic horizon and sealed alluvial deposits at May Brook (Schmits 1982:33–35) and at other sites indicates they probably were made by members of a single ethnic group and simply represent variations in notching triangular preforms.

Settlement-subsistence patterns appear more similar to that for Woodland sites than for Mississippian sites. May Brook sites lack evidence of permanent settlement. Sites appear to represent temporary seasonal encampments on floodplains and lower terraces of the Little Blue River and its tributaries (Schmits 1982:58). Subsistence practices were focused on hunting and gathering with limited use of cultigens. Radiocarbon ages for the May Brook phase are relatively tight (780–615 rcybp) and at least partially overlap those of Steed-Kisker. Schmits (1982:61–62) suggests that the May Brook phase is more closely related to Pomona sites than to Steed-Kisker sites. He has also speculated that the presence of May Brook-phase sites in the Little Blue River valley may represent Pomona populations moving eastward during an arid interval on the Plains.

TERMINAL PREHISTORIC (650–350 RCYBP)

Terminal Prehistoric is used here to refer to the final 300 years of prehistory instead of Late Prehistoric. Late Prehistoric is a relatively vague term that has been used in a variety of ways. It can refer to a relatively discrete cultural manifestation restricted to the last few hundred years of prehistory, or it can be used in a generic sense to refer to multiple cultural entities over the last thousand years of prehistory. Late Mississippian is inappropriate because the cultural manifestations that existed during this time in southwest and northwest Missouri are distinct from Late Mississippian lifeways in southeast Missouri and the deeper Southeast (see O'Brien and Wood 1998).

Southwest Missouri. The primary Terminal Prehistoric cultural manifestation that occurs in southwest Missouri and adjacent parts of northwest Arkansas and northeast Oklahoma is the Neosho focus (Baerreis 1940; Bell and Baerreis 1951; Freeman 1959, 1962; Purrington 1971), which is now generally referred to as the Neosho phase (J. Brown 1984a; Dickson 1991, 2002; Ray and Conner 2006; Thomas and Ray 2002). Conner (1999a) used the more generic term Neosho tradition to refer to a Neosho occupation in the Spring River valley in central Lawrence County, Missouri, because of the distance between this region and the Neosho type area. Certain aspects of the Neosho phase are similar to earlier Caddoan-Mississippian phases, whereas other aspects appear foreign as if borrowed from or introduced by immigrant or neighboring peoples, particularly the Oneota to the north.

Settlement-subsistence practices differ somewhat from those apparent for the earlier northern Caddoan. The settlement system was seasonally mobile and geared toward residential settlements (Wyckoff 1980:343). Neosho sites (e.g., Mode and Jug Hill) occur on river bottoms or on hilltops near rivers, but they are typically not large nor were they intensively occupied. The Dahlman site (23LA259) on the floodplain of the Spring River in southwest Missouri may be an exception. Survey evidence, information from collectors, and excavations at Dahlman indicate that while Neosho occupation of the area around Dahlman was intensive and/or long term, it was also dispersed with numerous small habitation loci (Conner 1999a, 1999b). Bottomland sites apparently represent spring-early fall residences in dispersed communities where food production (particularly of maize) was practiced along with hunting, fishing, and gathering. Large and small circular and oval pits are usually found at open-air Neosho sites (Wyckoff 1964:14–17, 48, 1980:512).

Neosho also practiced intensive seasonal exploitation of upland plant and animal resources while inhabiting rockshelters and caves during the fall and winter months. Examples of rockshelter field camps or base camps include: a group of six rockshelters along the Neosho River in Delaware County, Oklahoma (Freeman 1962; Purrington 1971); and Albertson Shelter, 3BE181, and 3BE532 in Benton County, Arkansas (Dickson 2002; Harcourt and Hawkins 1995). A few sheltered campsites in McDonald County, Missouri, include Bontke Shelter (Cobb 1976), Jacobs Cavern (Freeman 1959), Brittle Hollow Cave (Adams 1958:138–144), Cloud-Williams

Shelter (Dickson 2002), Henson Cave, and Henson Shelter (Ray and Conner 2006). A wide variety of artifact types present in Neosho components led Freeman (1962:6) to believe that sheltered sites were occupied year round by one or two small family groups.

An obvious departure from Caddoan-Mississippian practices is the apparent lack of construction and use of civic-ceremonial centers, some with mounds for the preparation and interment of the dead. Neosho dead were often placed in rockshelters, though open-air cemeteries are also known (Wyckoff 1980). Interments were usually primary and single in extended, partially flexed, or flexed positions (Freeman 1962:5; Wyckoff 1970:153). Associated grave goods are rare (Bell and Baerreis 1951:75).

Although the construction of earthen burial mounds is not associated with Neosho, there is some evidence that circular earthworks were constructed by Neosho, at least in southwest Missouri. The Spring River Earthwork (23LA45), located at the end of a ridge overlooking the confluence of the Spring River and Honey Creek, appears to be associated with the adjacent Dahlman site (Conner, ed. 1999). This earthwork, which consists of a single inner berm and an outer ditch, is roughly circular with a diameter of 92 m (Conner and Ray 1999:25–28). Neosho construction of the nearby earthwork was not conclusive; however, a refuse deposit in the earthwork ditch, which produced three plain shell-tempered body sherds, one plain shell-tempered flat basal sherd, three Madison (Fresno) arrow points, maize remains, and a radiocarbon age contemporary with two radiocarbon ages from Dahlman (Conner and Ray 1999:Table 2), strongly support a Neosho connection. A second apparent earthwork complex is located on the edge of Conner's Prairie in neighboring Dade County. It was first described in 1878 (Anonymous 1878a, 1878b) and later noted by Thomas (1891:129). The earthworks were described as circular and about 130 m in diameter with openings about 6 m wide on the east and west sides. Other Terminal Prehistoric earthworks are located in Oklahoma and eastern Kansas (Weston and Lees 1994). At least one, called Neodesha Fort, has been assigned to the Great Bend aspect or proto-Wichita (Weston and Lees 1994). The Old Fort earthwork in Saline County, Missouri, is associated with Oneota and the nearby Utz site (O'Brien and Wood 1998; Wood 1973).

Neosho pottery exhibits traits similar to, but also different from, Caddoan-Mississippian pottery. Ceramic wares consist of the shell-tempered types Woodward Plain (Neosho variety) and Neosho Punctate (Freeman 1959, 1962; Freeman and Buck 1960). The bases of both types are flat. Unfortunately, it is very difficult to differentiate the Neosho variety of Woodward Plain from the earlier (Caddoan-Mississippian) Reed variety of Woodward Plain. The exterior and interior surfaces of the Neosho variety of Woodward Plain are smoothed but never polished. Vessel types are globular jars with recurved rims and flower pot-like bowls with widely flaring sides to straight and slightly convex sides. Strap handles are present on some jars. The Neosho Punctate type, however, is diagnostic of the Neosho phase. This type has never been associated with Caddoan-Mississippian ceramics (Rohrbaugh 1984:284). Decorations are punctates, incised lines, and applique nodes; they occur primarily on jars but also can occur on bowls (Freeman 1959, 1962). The most common decorative elements are punctates, which are characteristically wedge shaped. Broad and narrow incised lines often occur in conjunction with punctates in horizontal or diagonal patterns. Applique nodes are relatively uncommon. Decorations occur on the rim or lip and from the lip to the upper shoulder.

Formal tools in Neosho chipped-stone assemblages are somewhat distinct from earlier Caddoan-Mississippian tools, but they overlap considerably with those produced by other contemporary Terminal Prehistoric groups living on the Plains. The primary projectile point type is the unnotched triangular Fresno arrow point. Variations on an otherwise isosceles triangular form have led to the creation of other unnotched arrow point types such as Maud (concave base), Shetley (excurvate sides), and Talco (incurvate sides). These slight variations probably represent

a range of variation for this triangular arrow point type. The variations also may relate to idiosyncratic behavior or unresharpened versus resharpened specimens. A side-notched form of Fresno, called Washita, occurs infrequently in Neosho assemblages (Bray 1956:Figure 18; Dickson 2002:219; Wyckoff 1964:Plate 3; Ray 2006b:67–69) and may reflect occasional interaction with groups to the southwest (e.g., Washita phase) and west. Likewise, elliptical Nodena arrow points, which are found occasionally at sites in the upper White River valley and adjacent areas (Bray 1956:62, 71; Cobb 1976:560; Dickson 1991:282), may reflect infrequent interaction with Late Mississippian groups residing along the Mississippi River to the southeast.

In southwest Missouri, the triangular Fresno type represents a departure from the side- and corner-notched arrow point varieties associated with early and late Caddoan Mississippian. The recovery of occasional Caddoan-style arrow points in Neosho levels and Fresno points in Caddoan-Mississippian deposits suggests: (1) there may be some overlap between the disparate technologies reflected in each type, (2) there may be some mixing of deposits by cultural and/or natural disturbance processes, or (3) many of the triangular "points" in Caddoan-Mississippian levels actually could be unfinished arrow point preforms for side-notched varieties with straight to concave bases such as Reed, Haskell, and Morris. Discrete pit features, hearths, and undisturbed deposits at Cloud Williams, Mode, Bontke Shelter, Henson Shelter, and Henson Cave support the notion that unnotched Fresno arrow points and notched Caddoan-style arrow points were not contemporaneous (Cobb 1976:237–248, 373; Dickson 2002:218; Ray and Conner 2006:64–102; Wyckoff 1964:49).

Large bipointed hafted or unhafted alternately beveled Harahey bifaces are another bifacial tool type that is associated with Neosho and other Terminal Prehistoric and protohistoric groups living on the Plains. Resharpened specimens are steeply beveled, and the blades exhibit flat parallelogram cross sections. It is widely viewed as a knife used for butchering bison, deer, and other large game animals. Unifacial scrapers are another formal tool type found in large quantities on Neosho and other Terminal Prehistoric sites across the Plains. They imply large-scale hide processing. They come in end scraper, side scraper, and side-end scraper forms. Most, however, are tear-drop shaped end scrapers that presumably were hafted into handles. Large quantities of these types of end scrapers do not occur in Caddoan-Mississippian lithic assemblages. Other chipped-stone tools typically found in Neosho assemblages include drills made from unifacial flakes and double-bitted (notched) chipped-stone axes.

The procurement of chert from quarry sites in the western Ozarks appears to have occurred primarily during the Terminal Prehistoric period. Artifacts made from nonlocal Burlington and Peoria cherts are often found on late prehistoric (especially Neosho) sites in northeast Oklahoma, southeast Kansas, southwest Missouri, and northwest Arkansas (Ray 2006c, 2007a; Thomas and Ray 2002; Vehik 1985; Wyckoff 1964; Wyckoff et al. 1963). Multiple quarries in residual Burlington chert deposits have been documented in southwest Missouri (Ray 2010). One in Lawrence County is the Spring-Honey Quarry (23LA293), located along a ridge slope next to the Dahlman site (Conner and Ray 1999:30–31; Thomas and Ray 2002:216). This quarry site is associated with the Neosho occupation at the Dahlman site (Ray 1999:60–61). The localized deposit of Peoria chert in Ottawa County, Oklahoma, also was quarried extensively. The primary exploitation of this site as a quarry appears to have occurred during Terminal Prehistoric times associated with Neosho and possibly other Terminal Prehistoric groups of the Plains Village tradition, as well as the historic Osage (Ray 2007a:349, 2010; Thomas and Ray 2002:218–219; Vehik 1985:93).

Non-chipped-stone artifacts that are found in Neosho assemblages, but apparently not in earlier Caddoan-Mississippian assemblages, include paired and unpaired arrow shaft abraders, bone arrow shaft straighteners, bone rasps, bison scapula hoes, and pipes made from red

pipestone (Freeman 1962:10; Ray and Conner 2006:78–107; Thomas and Ray 2002:214; Wyckoff 1964:49). Numerous late prehistoric perishable items (e.g., basketry, leather bags, clothing, wooden and cane tools, feathers, nuts and seeds, and cultigens) have been recovered from dry rockshelters and caves in northwest Arkansas and southwest Missouri (Bushnell 1915; Cobb 1976:425–460; Dickson 2002; Harrington 1960). Many of these perishable items were associated with the uppermost levels and Neosho occupations.

Relatively few Neosho houses have been excavated. The single house found at Jug Hill was rectangular and apparently lacked large center posts (Wyckoff 1964:20, 49). It did, however, contain hearths and storage pits. There are also indications that some temporary structures may have been erected in rockshelters (Harcourt 1994:8–9; Harrington 1960:104).

The origin of Neosho is controversial. An integral part of the controversy involves the unique pottery type, Neosho Punctate. As noted earlier, this decorated ceramic ware, which has lip and shoulder punctates, has never been associated with Caddoan-Mississippian ceramics. A parallel in decorated pottery has been drawn between Neosho Punctate and similar punctated designs on Oneota pottery. However, a major discrepancy between the two pottery types is the basal form of the respective pottery types, i.e., flat-based Neosho pottery versus round-bottomed Oneota pottery. Freeman (1962) saw this vessel form discrepancy as evidence of diffusion of ideas from neighboring pre-Oneota groups to local Neosho potters.

Early discussions on the origin of Neosho focused on the migration of an extraregional population or populations into the southwestern Ozarks (Orr 1946). A migration of Chiwere-Siouan groups from the north (i.e., Oneota) was suggested by Griffin (1937a, 1937b) and Bell and Baerreis (1951). Chapman (1980), however, hinted that Neosho might have resulted from a migration of Dhegiha-Siouan groups that originated in the Lower Mississippi River valley. An alternative non-migration proposal by Freeman (1962:10–11) suggested that Neosho represents cultural continuity from preceding (Caddoan) groups that adopted certain pottery designs and stone and bone artifacts through contact with contemporary proto-Oneota groups and/or from contemporary Caddoan groups living in the southern Plains. The strength in Freeman's cultural continuity argument rests primarily on the continued production of flat-bottomed pottery vessels. If a migration of Oneota groups into the southwest Ozarks had occurred, one would expect to find at least some round-bottomed pottery vessels at Neosho sites. None have been discovered or reconstructed.

Vehik (1993) also questioned Chapman's Dhegihan origin for Neosho. She argued that Neosho is probably tied to a Plains Caddoan or Arkansas River Valley Caddoan tradition. Others contend that cultural change during Terminal Prehistoric times was an adaptive response by native Caddoan-Mississippian populations to changing environmental conditions (Baerreis and Bryson 1965; Wyckoff 1980). A shift to drought-like conditions ca. 750–550 rcybp (A.D. 1200–1400) may have caused the expansion of grasslands followed by large herbivores such as bison. As an adaptation, native groups may have transitioned into semi-sedentary hunter-gatherer-farmers who made artifacts resembling those of neighboring Plains societies (Wyckoff 1980).

The descent of Neosho groups, or the link between protohistoric groups and historic tribes, is just as controversial as the origin of Neosho. Chapman (1980:228) suggested that the evidence, though limited, indicated that scattered social units from the southwestern Ozarks combined to form the Osage tribe. He made tentative links between the Osage and Neosho (Chapman 1959a, 1974a). Part of the problem with tracing Osage connections is the inability to determine total body shape of Osage pottery from the Brown site (23VE3) due to the small fragmentary nature of the sherds that were recovered (Chapman 1963:47). Others disagree with Chapman's Neosho-Osage connection citing scant evidence (O'Brien and Wood 1998; Yelton 1991). They believe the

best evidence indicates that the Osage derived from the Oneota tradition. Perttula (1992:142) also believes a Neosho-Osage link unlikely because there is no overlap between the termination of Neosho occupation ca. 350 rcybp (A.D. 1600) and the late seventeenth-early nineteenth century Osage occupations.

Northwest Missouri. The Oneota tradition is a relatively long one, extending from approximately 1050 to at least 300 rcybp and into the protohistoric and historic periods. It also covers a relatively vast region from southern Wisconsin and Minnesota, through Iowa and western Illinois, to northern Missouri, eastern Kansas, and eastern Nebraska. Most of the evidence indicates that Oneota originated in the upper Mississippi River valley and migrated to the south and southwest by 700–600 years ago (O'Brien and Wood 1998:345; Ritterbush 2006:151). Initial occupations in Missouri appear to have been in the Big Bend area of the Missouri River near the mouths of the Grand and Chariton rivers about 600 years ago. Guthrey appears to have been one of the first Oneota sites in this area followed by Dowell and Utz (Henning 1970:136). Utz, the largest site (>300 acres), has yielded the widest range of artifacts and appears to have been the focal point of Oneota in the Big Bend region (Utz phase) ca. 600–300 rcybp. Other major Oneota sites, located farther up the Missouri River, include King Hill at St. Joseph, Missouri, Doniphan and Fanning in extreme northeast Kansas, and Leary in extreme southeast Nebraska.

Oneota peoples appear to have been primarily semisedentary, although some permanence was established at selected sites. In Missouri, the primary settlements were located on ridge summits overlooking the Missouri River valley. Oneota houses were relatively fragile and impermanent structures (Bray 1991:46). House plan and shape varied depending on location (e.g., houses on the Plains compared to houses in Wisconsin, Illinois, and central Missouri). At the Utz site, houses were elliptical to subrectangular with vertical wall posts set approximately 8–12 cm apart. Although there is no direct evidence, it is probable that the wall posts were interwoven with flexible branches and covered with mats or hides (Bray 1991:46). Storage pits occur inside the houses as do prepared (puddled) floors; however, hearths apparently were not placed inside houses. The houses ranged from 9–15 m in length. Maximum length and width at Utz was 15.3–x–6.4 m. It appears that the Utz settlement was abandoned nearly 300 years ago (A.D. 1712). The former inhabitants resettled a few miles upstream of Utz at the Gumbo Point site where they resided from about 1727 to 1789 (Chapman 1959b).

Some Oneota groups set aside designated cemetery areas, although burials and skeletal material can be found almost anywhere on an Oneota habitation site (Henning 1970:4). Although comparatively rare, at least one earthwork is associated with Oneota. It is the Old Fort site located near the Utz site in Van Meter State Park, Saline County (O'Brien and Wood 1998:349). Two parallel ditches and one or two embankments encompass a roughly elliptical area that covers approximately 6 acres.

Oneota peoples appear to have practiced a generalized subsistence strategy based primarily on hunting, gathering, and fishing supplemented by small-scale gardening with maize as the primary crop (Henning 1970:4). At Utz, Oneota had adapted to exploiting animals and wild plants on the prairies, in the river valleys, and in the adjacent Ozarks interior woodlands. Long hunting and foraging expeditions were conducted seasonally from base camps or villages (Chapman 1980:236).

In Missouri, Oneota pottery vessels are shell tempered and occur as globular jars with rounded bases, constricted necks, and vertical or flaring rims (Bray 1991:48–65; Henning 1970:4; O'Brien and Wood 1998:350). Two to four loop or strap handles may be attached to the rim and upper shoulder of cooking pots. Some pots that lack handles have lugs. Oneota pottery may be plain (Utz Plain or Van Meter Plain) or decorated (Van Meter Trailed and Van Meter Incised).

Decorations, involving primarily incising but also finger impressions and punctations, were applied to the lip, body (typically shoulder and upper body), and handles. Specific design motifs include diagonal and vertical lines, chevrons, spirals, concentric circles, triangles, and punctations (Benn 1989; Bray 1991; Chapman 1980:298–299).

Lithic artifacts in a typical Oneota assemblage reflect an adaptation to a prairie-plains environment. Projectile points are predominantly unnotched triangular arrowheads referred to as either Madison or Fresno. End scrapers and side scrapers, presumably for hide preparation, are plentiful. Other chipped-stone tools include beveled (Harahey) knives, drills, perforators, and gravers. Although some exotic chert resources are represented in Oneota chipped-stone assemblages, the bulk from Oneota sites in Missouri is composed of Burlington chert. One large quarry site (Van Meter Quarry) is attributable, at least in part, to Oneota (Ray 2007a:207, 2010). Extensive quarry pits and trenches excavated into residual Burlington chert deposits are located on ridgeslopes next to the Utz site. Several other large quarries in residual Burlington chert deposits in Saline County also may be attributable to Oneota (Ray 2010), but direct evidence is currently lacking. Burlington chert is abundant in Saline County and occurs in large nodules suitable for making long knives and other tools.

Oneota ground-stone tools include sandstone arrow-shaft abraders, manos, metates, igneous celts and grooved mauls, and distinctive disk pipes made from catlinite, a red claystone quarried from a specific location in southwest Minnesota. Another artifact that occasionally shows up on Oneota sites is the catlinite tablet, on which birds, birdmen, and mythical images were engraved. Artifacts made from bone are bison-scapula hoes, arrow-shaft wrenches, punches, awls, needles, scapula knives, and ornaments (Henning 1970:4). Socketed conical projectile points, punches, handles, and ornaments were fashioned from antler. Trade items that appear on Oneota sites are native copper from the Great Lakes region, turquoise from the Southwest, marine shells from the Gulf Coast, pottery vessels from Caddoan and central Mississippian groups, and catlinite from Minnesota (Bray 1991:69–77; Henning 1970:142; O'Brien and Wood 1998:352).

Beginning in protohistoric times (ca. 350–280 rcybp), European metal trade goods (e.g., scissors, awls, saws, files, hoes, axes, knives, guns, gunflints, brass kettles) and tools fashioned from metal (e.g., metal arrow points) began to replace traditional chipped- and ground-stone artifacts and ceramic vessels (Chapman 1946:19; Chapman and Chapman 1964:95–97). The few items that appear to have continued to be made from local resources by Missouri and Osage Indians living at the Brown, Plattner, and Gumbo Point sites were large oval scrapers and gunflints made from Ozarks cherts and the occasional bifacial knife and triangular arrow point (Ray 2007a:Table 8.4, 349–351).

Prior to 1970, it was generally presumed that Oneota evolved from an Old Village Middle Mississippian base as exemplified by Cahokia and Aztalan (Griffin 1946:90, 1960:853). However, Henning (1970:5–8) pointed out that there is no conclusive evidence of Old Village attributes in Oneota materials and that a series of radiocarbon ages indicated that Oneota in some areas was contemporaneous with the Old Village of Cahokia and possibly earlier than Old Village of Aztalan. He concluded that the evidence strongly suggests that Oneota developed independently, possibly from a distant and undefined "common ancestor" with Old Village.

The various historic tribes that occupied prehistoric Oneota territory at the time of European contact spoke Siouan languages. Two linguistic subgroups, Chiwere and Dhegiha, began to diverge about one thousand years ago (O'Brien and Wood 1998:347). Chiwere-Siouan speakers include Winnebago, Missouri, Ioway, and Oto, whereas Dhegiha-Siouan speakers include the Kansa, Osage, Quapaw, Omaha, and Ponca. Through historic records, several Oneota sites have been linked to, or appear ancestral to, a number of historic tribes. The Oneota Utz site has been

directly associated with the Missouri Indians (Chapman 1946; Henning 1970:165; O'Brien and Wood 1998:352). Other Oneota sites are thought to be associated with historic Indian tribes, but these associations have not been confirmed. For example, the Ioway and Oto are thought to be associated with the Leary site, and the Kansa are tentatively associated with the Fanning and King Hill sites (O'Brien and Wood 1998:355–356).

As indicated previously, the association of the Dhegian-speaking Osage with a prehistoric progenitor is still uncertain. Chapman's (1959a, 1974a, 1980) tentative association of Osage with Neosho is now out of favor. Most now believe the Osage derived from the Oneota tradition, but concrete evidence is lacking (Henning 1970:146; O'Brien and Wood 1998; Yelton 1991). There are no known pre-Osage or pre-Kansa sites in the areas where they lived at the time of European contact. The prevailing current hypothesis is that Dhegiha-speaking peoples were late arrivals in western Missouri and that they adapted to regional (Oneota) traditions after establishing local residence (Henning 1993).

3. ETHNOHISTORY AND EURO-AMERICAN CONTACT IN MISSOURI

by

W. Raymond Wood

EARLY EUROPEAN CONTACTS

The present state of Missouri has long been a major player in the history of the midcontinent because its eastern margin is the Mississippi River and it is bisected by the Missouri River. The locale of St. Louis immediately below the confluence of the Missouri and Mississippi rivers was a strategic place both for Missouri's Native Americans and for invading Europeans. Despite human occupation for thousands of years into the past, written documentation of the region begins in 1673 with the passage of Father Jacques Marquette and Louis Jolliet down the Mississippi along the eastern margin of the modern state. The map of 1673–1674 that Marquette produced on his return showed numerous tribes living along the lower Missouri River; the map is archived in the Còllege Sainte-Marie in Montreal (Tucker 1942:2–3, Figure 2). Seeking the Western Sea, or the Pacific Ocean, they explored none of its tributaries more than a few miles, returning home when they realized they were headed for the Gulf of Mexico.

The several Siouan-speaking tribes residing in various parts of Missouri were later augmented, temporarily, by a number of Algonquian- and Iroquoian-speaking tribes that were displaced from their homelands further to the east. Some of these groups resided briefly in the state or passed quickly through Missouri on their way to reservations in the west. The ever-expanding Euro-American settlements in the east forced these migrants ever westward, some of them from as distant as the Atlantic coast. As John Bowes (2007) has argued, some of these groups were not only exiles, but also pioneers and unwilling trailblazers during the nineteenth-century development of the United States.

Tribal Movements

As far as we know, Marquette and Jolliet spearheaded the French voyageurs, or *coureurs de bois* (literal translation as "runner of the woods"), that quickly penetrated the rich fur-bearing streams of the Missouri and its tributaries. The Jesuit and his companion entered the Mississippi by way of Green Bay on Lake Michigan and the Fox and Wisconsin Rivers, but they met no Indians in their descent of the Mississippi until they reached the mouth of the Des Moines River, which forms the northeasternmost boundary of the modern state of Missouri. Ascending that river a few miles, they entered and described a Peoria village on its south bank, one that was recently located and that today lays within the confines of Iliniwek State Historic Site in Clark County, Missouri. Excavations at this two-part fortified site (Haas-Hagerman [23CK113]) that dates to the middle seventeenth century have confirmed its ethnic identity (Grantham 1993).

At this Peoria village, the travelers apparently obtained information on tribes that lived to the west along the course of the Missouri River and its major tributaries. Although the Missouri River (that Marquette labeled on his map as the *Pekittanoui*) is shown only as a short stub, the positions of the major Siouan-speaking tribes to the west are shown with relative precision along its approximate course (Tucker 1942:Plate 5). The explorers passed the mouth of this stream without comment except on its roiling character, and the map shows none of the Algonquian-speaking

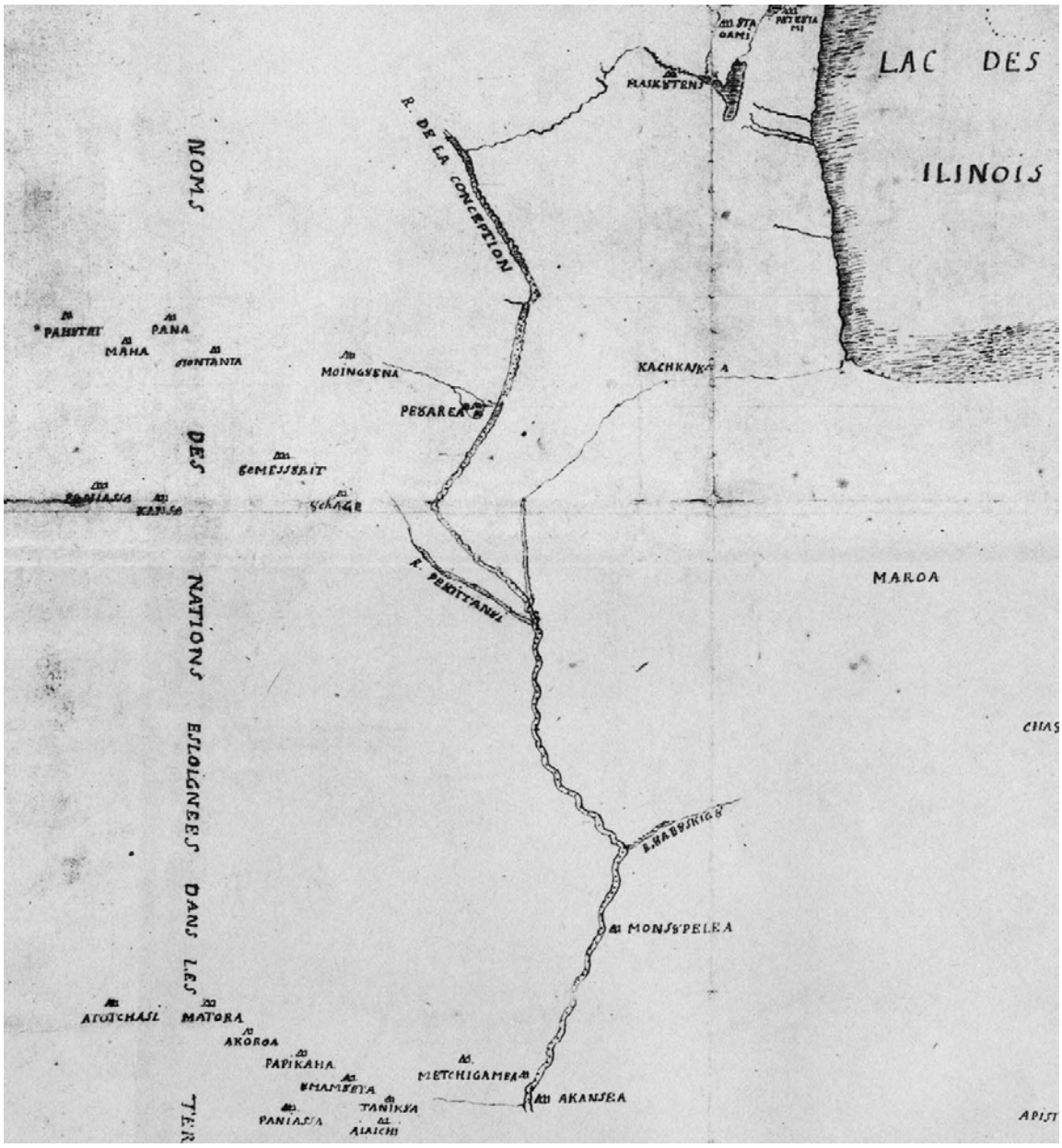

Figure 2. Excerpted portion of the Marquette map of 1673–1674.

groups later to be identified that lived on either bank of the Mississippi near its mouth. The Osage, Missouria, and Kansa are, however, shown in positions approximating the regions they occupied at the time and that today are encompassed within the state of Missouri. The Frenchmen discovered a horned "monster" painted on a rock a few miles above the mouth of the Missouri near where the town of Alton, Illinois now exists. Such images were depictions of the concept of the *manitou* that prevailed in Algonquian religious beliefs, and probably represented the product of one of the Algonquian-speaking Illinois Confederacy tribes that were soon to be documented as living in the vicinity of the mouth of the Missouri River. In contrast, the concept of *wakan*

tanka or *wakanda* was held by the Siouan-speaking Osage, Missouria, and Kansa living further upstream (Denny 2000:13).

Other explorations, such as those of Rene Robert Cavelier, Sieur de La Salle and Henri de Tonti on the Mississippi, produced few notes on the ethnography of the region, although they reached the mouth of the River Colbert (the Mississippi) and claimed its basin for France in 1682. On descending the river, the La Salle expedition visited a deserted Tamaroa village on February 11 on the east bank of the Mississippi about seven leagues below the mouth of the Missouri, although the inhabitants had returned by the time the expedition retraced its route (Cox 1905–1906, Vol. 1:17, 134; Foster 2003:27–28, 124). LaSalle catalogued a number of tribes of the interior, descriptions that gave rise to many legends among the *coureurs de bois* or voyageurs. He wrote that two Frenchmen lived among the Missouri tribes in 1680 or 1681, perhaps the two *coureurs de bois* who were captured by the Missouria on the Mississippi River (Nasatir 1990:5, Note 5).

LaSalle's lieutenant Henri de Tonti recorded in his journal on March 8, 1688 that "the river of the Missouri comes from the west about 300 leagues … [where] … three villages of the Missouri, Oto, and Osage are neighbors to one another, situated on the prairie at 150 leagues from the mouth of the Missouri River" (Pease and Werner 1934:277). In May 1682, he recorded a plot by a mixed group of Illinois, Missourias, and Tamaroas to kill him and his party; however, they were saved by the Illinois who recognized the Frenchmen as friends (Anderson 1898:107–109). Tonti supposedly met the Missouria on the Missouri River a day and a half's journey from the village of the Tamaroas (Dorsey and Thomas 1911b:911). The Tamaroas, an Iliniwek group, were living on the east side of the Mississippi across from the confluence of the Missouri River and the Mississippi River. Although long-range French voyageurs had penetrated the Missouri Valley from the region of the Great Lakes at an earlier date, these illiterate fur traders left no records for us. La Salle's exploration ended when his own men murdered him in 1787 in southeastern Texas.

The Illinois "Confederacy"

At this time, a number of small, closely-related Algonquian-speaking groups were living or soon came to live near the mouth of the Missouri River and further downstream along the Mississippi. They were members of what has been called the Illinois "Confederacy," and consisted of the Tamaroa, Cahokia, Kaskaskia, Michigamea, and Peoria. The names of other tribes mentioned during the time may be synonyms. Some early mentions of them may have been groups that were later incorporated into the five former tribes, for disease and warfare often reduced groups to such small size that consolidation was necessary for their survival. At the time of earliest recorded European contact, the Tamaroa lived on either side of the Mississippi around what is now St. Louis, sharing the east side of the river at times with the Cahokia (Pease and Werner 1934:389).

The Kaskaskia were settled on the upper Illinois River at Starved Rock about 120 km west-southwest of Chicago, and the Michigamea lived along the Mississippi in northeast Arkansas near the mouth of the Arkansas River. This is shown on Marquette's 1673–1674 map and it is also where the La Salle expedition of 1692 found them (Foster 2003:97, 99, Note 24). Earlier, the Michigamea were recorded as living near the Osage, apparently near the mouth of the Osage River. Having been driven west by the Iroquois in 1680, this is shown on the Franquelin 1685 map (Alvord and Bidgood 1912:235; see cover of this report); how long they remained there is unknown. The Peoria lived in eastern Iowa (Callender 1978b:673) and northeastern Missouri.

In 1699, Fathers Jolliet de Montigny, Antoine Davion, and Jean Francois Buisson de St. Cosme had established the mission of the Holy Family at Cahokia or Tamaroa Mission. Upon their arrival, they found that the Shawnee, Chickasaw, and another tribe had attacked the Cahokia Indians (Alvord 1920:116; Balesi 1992). More ethnographic notes in the region of St. Louis began the following year when Gabriel Marest, a Jesuit priest, escorted a band of Kaskaskia Indians across the river from Illinois to the mouth of the River des Peres, in what is now the city of St. Louis (Alvord 1920:132; Bannon 1954). Pierre-Charles le Sueur's 1702 map of the Mississippi River depicts the village and states (in translation) that it was the "Village of the Tamaroa or Cahokia, here also are the Michigamea" (Wood 1993:Plate 4c).

Fathers Montigny, Davion, and St. Cosme also established a temporary mission on the present site of St. Louis in 1700. It was established when the Kaskaskia Indians moved from the Illinois River to the mouth of the River des Peres and lasted for two years (Nasatir 1990:6–7). The De Gannes Memoir of 1702 records that many nations lived along the banks of the Missouri River and that several of these nations come to trade among the Illinois. He specifically mentioned the Osage and Missouria, who were recently at war with the Illinois, but who otherwise were very glad to keep on the good side of the Illinois because of their close trading ties. Beginning about 1700, all of the Illinois except for the Peoria began to settle along the Mississippi valley south of St. Louis. Each of them eventually moved into or through the state of Missouri.

Shortly after the mission of the Holy Family of Cahokia was established in 1699, groups living on the east side of the Mississippi River were joined by French traders and by a band of Tamaroa Indians who hoped to evade Iroquois raids. A period of rapid and sometimes confusing change now took place. The Michigamea and Tamaroa moved downriver and established the town of Kaskaskia on the east bank of the Mississippi in Illinois near the mouth of today's Kaskaskia River. In so doing, they abandoned the Des Peres settlement. French settlements and forts on the east bank (in what was to become known as the American Bottom) soon provided a focal point for different tribes. The Kaskaskia and Tamaroa became associated with the town of Kaskaskia; the Michigamea with Fort des Chartres, built in 1719; and the Cahokia with the town of Cahokia. In about 1693, the Michigamea moved to become part of the Kaskaskia and the Peoria absorbed the Cahokia, Piankashaw, and Wea to become the Confederated Peoria. Little is known of their villages on the Mississippi, although the remains from one eighteenth-century Kaskaskia village, the Guebert site (1719–1833) located three miles north of the town of Kaskaskia, have been studied (Good 1972).

The Illinois in the Mississippi Valley came under increasing attack by various eastern groups that were moving west due to the advance of European settlement and because of warfare among the eastern tribes. After an Iroquois attack in 1680, the Illinois moved to the west bank of the Mississippi, encouraged also by repeated attacks by the Sauk, Fox, Kickapoo, and Potawatomie, followed by the invasion and occupation by these groups of their former territories on the east bank.

Under attack, unable to defend themselves from their many enemies, and demoralized by alcohol with the degeneration of their cultural traditions, their numbers diminished. By 1832, the Sauk, Fox, Kickapoo, and Potawatomie had been reduced to two small entities and both had left the states of Illinois and Missouri during the administration of President Andrew Jackson. The five Illinois groups were reduced to two. The Kaskaskia absorbed the Tamaroa and the Michigamea, and they moved to a reservation on the middle reaches of the Marais de Cygnes River in eastern Kansas; in turn, the Cahokia merged with the Peoria, who were dispatched to allotments in extreme northeastern Oklahoma (Callender 1978b:673, 677–679; Good 1972:1–62;

Hauser 1973; Temple 1958). The only village site of the tribes of the Illinois Confederacy now known to exist in the state of Missouri was the Peoria village at the Iliniwek State Historic Site.

Missouria

Coincident with and for several years prior to the Des Peres settlement, unlicensed French *coureurs de bois* were going up the Missouri to trade with the Missouria and Osage, first noted by Marquette and Jolliet (Table 2). Baron La Hontan claims to have traveled west of the Mississippi and to have visited in 1688 the Missouria, a tribe he located in two villages along the Missouri River downstream from the mouth of the Osage River (La Hontan 1703:130–132). Houck (1908, Vol. 1:238–239) accepted La Hontan's claim of visiting the Missouria, although more recent authorities have questioned the rest of his account (Berry and Chapman 1942:293), a narrative that Villiers du Terrage regarded as pure legend (Villiers du Terrage 1925:28; Nasatir 1990:5). The first acceptably documented trip to the Missouria occurred in 1693 (Nasatir 1990, Vol. 1:5). In 1692, La Salle mentions the *Mintache* (Missouria) Indians at the mouth of the Missouri River, but French traders found them living in the Big Bend area of the Missouri River in 1693. Their principal village at that time is today known as the Utz archaeological site (23SA2). This was a locality they had occupied, at least intermittently, for perhaps a century prior to European contact. Other early contact-period Missouria village sites are the nearby Gumbo Point and Utlaut sites and another unnamed village a few miles upstream noted by Lewis and Clark (Moulton 1986, Vol. 2:296).

Soon after the Tamaroa Mission was established in 1699 at Cahokia, Father St. Cosme expressed a desire to plant a cross among the tribes farther up the Missouri River. Writing to the Bishop of Quebec from the Tamaroa Mission in February 1700, Father M. Bergier mentioned that Missouria cabins were present at the Tamaroa village just east of the Mississippi River (Fortier 1909:236–237). He also indicated that there soon would be about thirty-five additional cabins of Missourias "who are winter-quartering some ten or fifteen leagues from here below the [Tamaroa] village, on the river." He goes on to say that "we must not, however, count this nation as forming part of the village and of the Tamaroa mission, because it remains there only a few months to make its Indian wheat, while awaiting a day to return to its village, which is more than a hundred leagues away, upon the shores of the Missouri River" (Fortier 1909:236–237). The Missouria traveled widely.

In 1702, Father Bergier, the successor to Father St. Cosme, expressed a desire to establish missions among the Kansa and *Panimaha* (Skiri Pawnee) tribes on the Missouri River. At this time, Father Bergier mentioned that the Osage were too numerous, but indicated that there had been a reduction in the Missouria Indians. About four years later (1706 or 1707), Derbanne ascended the Missouri River with a small party of men for nearly four hundred leagues where they reported seeing Spanish horses. At that same time, Bienville reported that two Canadians spent two years going from village to village on the Missouri River. For that matter, there were probably a number of *coureurs de bois* traveling the lower Missouri River after 1700. Nasatir (1990:7) believes that the *coureurs de bois* penetrated great distances up the Missouri, but their activities were retarded by the *méfiance* (i.e., distrust) of the Plains Indians. He elaborates, however, that these unrecorded adventurers probably made their exploratory trips up the branches of the Missouri—the Osage, Kansas, and the Platte rivers—rather than the main stem. Dartaguiette was able to prepare a map by 1712 of the Missouri River from reports by the *coureurs de bois* (Nasatir 1990:10).

In 1712, Etienne de Véniard, sieur de Bourgmont, a young French officer at Detroit, met the Missouria Indians where they, along with some Osages, had traveled to aid du Buisson at Fort

Table 2. Early European Contacts with the Missouria.

Date	European Contact	Nature of Contact/Description
1673 June	Louis Jolliet and Father Jacques Marquette	Several villages of savages are located along this river; map locates Missouria, Osage, Kansa, Omaha
1682 Feb 14	La Salle	Catalogued some of the native tribes of the interior; LaSalle's expedition gave rise to many legends among the *coureurs-de-bois*.
1682 May	Tonti	I offered the calumet; an Illinois among them, when he saw me, recognized me and cried out: "This is my comrade; these are Frenchmen!" We went ashore and passed the night with them. There was a plot to kill us, but, as it was a mixed party of Illinois, Missouritas, and Tamaroas, the Illinois foiled the design [took place a day and half from Tamaroa village].
1683	La Salle	Wrote that two Frenchmen had lived among the Missouri tribes. He says that in 1680 or 1681 two French *coureurs-de-bois* were captured on the Mississippi by Missouri Indians and taken off to their village.
1689 March	Baron La Hontan	Houck (1908, Vol. 1:238–239) accepts that La Hontan visited the Missouria in the company with the Outagamis (Foxes); Villiers du Terrage rejects it (Nasitir 1990:5).
1693 May-June	Father Gravier (also see Houck)	Two French traders accompanied by Kaskaskia Indians, visited the Missouri and Osage Indians, hoping to set up trade with them and to establish peace among the tribes.
1698	Father St. Cosme	Reported that a large number of savages lived upon that river.
1699 March	Father St. Cosme	Tamarois mission (Cahokia) founded.
1700 March 9	Father Limoges	Expressed desire to St. Cosme that he wanted to plant a cross among the tribes farther up the Missouri River.
1700 July 10	Father Marest of the Kaskaskia Mission	Wrote to Iberville that the Missouri was well peopled with Indian nations; he spoke of the Kansa and Panis carrying out commerce with the Spanish; he had seen Spanish horses; he mentioned the Oto and Iowa tribes.
1700 July 13	Le Sueur	Commented that Missouri means "canoe," so named for the Indians who are called the "peoples of the canoes."
1700 late	Fathers Montigny, Davion, and St. Cosme	Temporary mission established on the present site of St. Louis; established when the Kaskaskia Indians moved from the Illinois river to the mouth of the Des Peres river; the mission was maintained for two years before it was abandoned.
1700	*Coureurs de bois*	Were probably penetrating the Missouri River by 1700; probably made their sallies up the branches of the Missouri, the Osage, Kansas, and Platte rivers.
1702	Father Bergier (successor to St. Cosme)	Desired to establish missions among the Kansa and Panimaha (Omaha) tribes on the Missouri; the Osages being too numerous and the Missouri Indians reduced to nothing.
1706 or 1707	Derbanne	With a small party of men ascended the Missouri nearly four hundred leagues; reported he discovered Spanish horses.
1706 April	Bienville	Two Canadians reported they spent two years going from village to village on the Missouri.
1712	Dartaguiette	Map of Missouri R from reports by the *Coureurs de bois.*
1712		Missouria went to the aid of Dubuisson when he was besieged in Detroit by the Fox Indians.
1712	Bourgmont	First met Missouria in Detroit; accompanied tribe on their return to their village.
1714	Bourgmont	Became idol of tribe when he visited two years after he first met tribe.

Detroit, a settlement besieged by the *Renards* (Fox) (Villiers du Terrage 1925:18). Becoming enamored with the daughter of a Missouria chief, Bourgmont accompanied the Missouria back to their village on the Missouri River. He is thought to have lived with them for five years, where he took a Missouria woman as a wife and had a son. He later returned to France, where he obtained a charter as Commandant of the Missouri. He led an expedition up the Missouri River and he built the first French fort on the Missouri River, Fort Orleans, in 1723 (Norall 1988). This fort was on the north bank of the Missouri River in present Carroll County nearly opposite the Missouria Indian village (Utz site). In 1724, the Missouria at Utz moved across the river to be near the new fort.

De Bourgmont was the first person to explore and describe the Missouri River, reaching as far upstream as the mouth of the Platte River in 1714. His travels resulted in a document that describes his course, *The Route One Must Take to Go Up the Missouri River.* Guillaume Delisle used this document in Paris to create a map of the river dated 1714, a map that locates the "Village des Missouris" in the approximate position of the Utz site (Wood 1983b:Plate 1; see Figure 3 for a reissued version of this map), although the written document itself is free of information about the locations of any Native Americans. However, De Bourgmont's *Exact Description of Louisiana*, dated to ca. 1717, mentions the Wea, Piankashaw, Miami, and Kaskaskias on the Mississippi River, and locates the Osage and Missouria in central Missouri, the Kansa in western Missouri, and the Otoe on the lower reaches of the Platte River in today's Nebraska (Norall 1988:108; 113–123; Villiers du Terrage 1925).

It has long been known that the predecessors of the Missouria occupied the Utz site. Dale R. Henning has called a number of prehistoric Oneota-related villages in the Big Bend locality the Chariton River Continuity that he believes are ancestral Missouria communities. The continuity began with the Guthrey Oneota village ca. 1350–1400, with the possibility of prior and subsequent occupations, and ended with the Gumbo Point site, abandoned about 1777 (Henning 1970:85, 160–162, 1998a:385–389).

Intensive French trade began with the Missouria in 1723 with the establishment of Fort Orleans, the first European fort west of the Mississippi. Despite being a monopoly, it was not commercially successful and was abandoned only five years later (Norall 1988:47, 89; Villiers 1925:116). A second and short-lived French post among the Kansa Indians was built by a Canadian named Joseph Deruisseau on the Missouri near the mouth of the Kansas River in 1744 that was called the "Post of the Missouris." It came to be known as Fort Cavagnial (Hoffhaus 1984:59). Fort Orleans and the Post of the Missouris near present-day Leavenworth were, however, not the only sources of European goods, for French traders were active on the lower Missouri River from bases in Kaskaskia and other French towns on the Mississippi from the early decades of the eighteenth century until the time of Lewis and Clark (Nasatir 1990, Vol. 1:36, 41; Piazza 1992:18–26).

The Missouria remained in the Big Bend area throughout the 1700s, but they scattered because of repeated warfare and near obliteration in an altercation with the Sauk and Fox during the 1790s. Most of the survivors scattered among their Siouan-speaking relatives; some joined the Otoe on the lower Platte River in Nebraska, others went to live with the Osage and Kansa, and a few went to the Ioway (Milner 1982:121; Moulton 1986, Vol. 2:295–302; Nasatir 1990, Vol. 1:261). The Missouria are today merged with the Otoe as the Otoe-Missouria Nation.

Figure 3. A later reissued version of the 1714 Delisle map.

THE OSAGE

The Osage were the dominant force in the region when Europeans first contacted them (Table 3). They controlled a vast area south and west of the Missouria villages, including much of the Ozark Highland and adjoining prairies in Missouri and Arkansas, extending into eastern Kansas and northeastern Oklahoma. The semi-permanent villages of the Grand and Little Osage were in present-day Vernon County, Missouri, on the middle reaches of the river that was named after them from the earliest times, although the Little Osage lived for a time on the Missouri River in present-day Saline County. Hunting parties from these bases ranged over vast tracts of land to the west and south. Most of their earliest known village sites lie within a few miles of one another, and are all protohistoric, containing varying amounts of Euro-American trade goods.

French traders began going up the Missouri River in the late 1600s, perhaps even before Marquette and Jolliet passed the mouth of the stream in 1673, and trade with the Osage rapidly became important on the lower Missouri. In 1680, some Osages visited La Salle at Fort Crèvecoeur on the Illinois River, the first of a probable succession of visits to posts on the Illinois (Wedel 1973:148). The first recorded visit to them in Missouri was in 1719, when Claude-Charles Dutisné went to make treaties with the Osage and found the Great Osage in present Vernon County, where all of the Osage appear to have lived at the time. In 1794, Pierre Chouteau, a French businessman of Spanish St. Louis, established the first trading post among them, Fort

Table 3. Early European Contacts with the Osage.

Date	European Contact	Nature of Contact/Description
1673 June	Louis Jolliet and Father Jacques Marquette	"Several villages of savages are located along this river" (Nasitir 1990:30); map locates Missouria, Osage, Kansa, Omaha.
1680	La Salle	Some of the Osage tribe visited La Salle at Ft. Crèvecoeur on the Illinois River—first of a probable succession of visits to Illinois posts.
1680	Dr. Daniel Coxe	French discoveries printed at Paris by order (1691) owns the Illinois were driven by the Iroquois in 1680 out of their country and went to settle among the Osages, who dwell west forty or fifty miles beyond the River Meschacebe (Mississippi).
1687	Father Douay	"About six leagues above this mouth, there is on the northwest the famous river of the Massourites or Osages….and inhabited by many populous tribes; they include also the Osages who have seventeen villages on a river of their name, which empties into that of the Massourites, to which the maps have also extended the name of Osages" (Shea 1852:222).
1688	Tonti	"The river of the Missouri comes from the west about 300 leagues from a lake which I believe to be the lake of the Apache. The three villages of the Missouri, Oto, and Osage are neighbors to one another, situated on the prairie at 150 leagues from the mouth of the Missouri River" (Pease and Werner 1934:277).
1693	Father Gravier	Two French traders accompanied by Kaskaskia Indians, visited the Missouri and Osage Indians, hoping to set up trade with them and to establish peace among the tribes.
~1697	Bacqueville de la Potherie	"[The Illinois] marched, to the number of twelve hundred warriors, against the Osages and Accances (Kansa) and carried away captive the people of a village there. The neighboring peoples, having been apprised of this raid, united together and attacked the Illinois with such spirit that the latter were compelled to retreat with loss" (Blair 1996:107–108). Osage slay Outaouak (Ottawa) chief *Nansoaskoüet*; Ottawa and Illinois attack Osage and Kansa at their village.
1700	*Coureurs de bois*	Were probably penetrating the Missouri River by at least 1700; probably made their allies up branches of the Missouri, the Osage, Kansas, and Platte rivers.
1700	Tonti	Tonti wrote, based on secondhand information, probably from c*oureurs de bois,* that the Osages had 300 "cabanes" (cabins).
	Father Limoges	Expressed desire to plant a cross among the Missouri tribes, especially the Osage.
1702	Father Bergier	Wanted to establish missions among the Kansa and Panimaha (Skidi Pawnee), saying the Osage were too numerous. He learned from two French traders who had wintered with the Osages that the tribe had been much depleted by "malady" and a little to "la chasse" (hostile raids from other Indians). The two men reported that the Osage only had 200 cabanes altogether in their two villages seven leagues apart on the White River (Osage) which emptied into the Missouri. This may indicate the Little Osage were living separately at this time near the Osage River.
1702	Pierre Liette	"The savages of whom I have spoken who come to trade among the Illinois are the Osage and Missouri, who not long ago waged war with them, and who, aside from their need of hatchets, knives, and awls, and other necessary things, are very glad to keep on the good side of this nation, which is much more war-like than theirs. They never fail every year to visit them and to bring them the calumet, which is the symbol of peace among all the nations of the south" (Pease and Werner 1934:389).
1714		Assisted the French in defeating the Foxes at Detroit.
1714	Bourgmont	Noted Little Osage village 30 leagues from great village of the Missourias.
1718	Dutisné	First official exploration of the river reaching the village of the Osage.
1719	Dutisné	Dutisné visited the Great Osage village (Brown Site, 23VE3). There were trade goods on the site.
1719		Warriors had been at the Arkansas Post well before 1719 and documents indicate that some traders, in turn, had reached the Osage village.

Carondelet (Foley 1989:69–70; Houck 1909, Vol. 2:106–110). Named after the Spanish governor of Louisiana, Fort Carondelet served the Osage for three years, as did a somewhat later but unnamed post that Manuel Lisa built a few miles down the Osage River. William Clark labeled this post "Old Fort" on an 1804 map (Jackson 1961:Map).

The Great Osage inhabited two villages on the Osage River that are currently known as the Brown (dating to about 1675–1777) and Carrington (about 1777–1825) sites. The Little Osage occupied the Plattner site on the Missouri River throughout the 1700s and later the Hayes site on the Little Osage River in Vernon County (ca. 1790–1806) (Chapman, ed. 1985). In 1719, Claude-Charles Dutisné, like De Bourgmont before him, noted that Plattner, a "village of [Little] Ausages" was on the Missouri only a few leagues from Utz (Wedel 1972:16). Zebulon M. Pike visited the Hayes site in the fall of 1806 as he was on his way to the Spanish southwest (Jackson 1966, Vol. 2:31). The early Osage villages that Lay (1969:10) mentions at the mouth of the Pomme de Terre River are more likely those of the Kickapoo, who were assigned a reservation in the area in 1819.

The Osage obtained horses in the 1680s and quickly became mobile, although not to the extent of many of their western neighbors, and traders found a ready source of horses among them (Hyde 1951:15, 56; Matthews 1961:27). The Osage wars against the Caddoan peoples of the Red River and further south in the 1730s and 1740s led the Caddoans to seek refuge even further to the south. Then, ranging from their homes in Vernon County, the Osage hunted during the winters for fur-bearers in the former Caddoan haunts as far as the Arkansas River. Between 1794 and 1803, and in part with the encouragement of the Spanish government, there was mounting pressure on traditional Great Osage and Little Osage hunting territories by the many Algonquian-speaking tribes that were being squeezed ever westward. The Delaware, Kickapoo, Potawatomie, Sauk and Fox, and others were being encouraged by the United States government, especially after the Louisiana Purchase, to move into what had been Osage hunting grounds west of the Mississippi. Political problems within the tribe, exacerbated by French traders and problems with their new neighbors, led to two subdivisions within the Great Osage. One group lived on the upper Osage River and the other in two villages in Arkansas.

Successive treaties with the American government in 1808, 1818, and 1824 deprived the Osage of all their lands in Missouri, Arkansas, and Oklahoma. They retained only their lands in southern Kansas as a reservation. Although they retained the right to hunt in their former range, the Osage rightly considered the eastern tribes to be invaders who competed for scarce game, and warfare escalated between them. In 1865 and 1870, the Osage were moved to a reservation in northeastern Oklahoma, though many of them continued to live on the Verdigris River in southeastern Kansas (Foreman 1936:266).

No Osage Indian burials are known in the state of Missouri, but one potential site exists on the Little Sac River in Dade County. This site was excavated on private land during salvage work in the Stockton Reservoir in the 1960s. The remains of a young female were placed in a shallow pit mantled by a low rock-and-earth mound. Her remains were accompanied by a few glass and shell beads and by three items of rolled white metal, perhaps German silver (Wood and Pangborn 1968a). It is tempting to regard this burial as that of an Osage Indian, for the goods in the grave pit appear to be earlier in time than those we would expect from other later groups that passed through this area (such as the Delaware), and the mound is not far distant from the traditional villages of the Osage Indians in Vernon County.

The Kansa

The Kansa apparently lived as Oneota-tradition peoples on both banks of the Missouri River north of Kansas City until the late 1700s. The first historical note of their location is on maps derived from the Marquette and Jolliet expedition of 1673, on which they appear as the "Kansa" (Tucker 1942:Plate 5). De Bourgmont reported in 1714 that the Kansa Indians lived in westcentral Missouri around the mouth of the Kansas River (Norall 1988:108). Since the time of Marquette and Jolliet, the tribe had been living in this locality and to the west along the lower reaches of the Kansas River near modern Manhattan.

The earliest documented Kansa village stood on the site of present-day Doniphan, Kansas, at the confluence of Independence Creek and the Missouri River. They apparently occupied this general locality from about 1718 or before to about 1724 and later. With the establishment in 1723 of Fort Orleans at the mouth of the Grand River, French traders brought goods much closer to them, and in 1724 De Bourgmont used the village on Independence Creek to launch a western expedition to establish peace with the Plains Apache and initiate trade with the Spanish. Fort Orleans lasted only a few years, but about 1744 the determined French established Fort Cavagnial next to this Kansa village. After this short-lived fort was abandoned, the Kansa moved their village or villages away from the Missouri River and built them on the lower reaches of the Kansas River (Bailey and Young 2001; Unrau 1971; W. Wedel 1959:51–52). The site of one village, not yet located on the ground, is labeled "Old Kansas vill. des 24" on a map of the Missouri River drawn by Joseph N. Nicollet in 1839; it is shown at a location a few miles south of the town of Atchison, Kansas (see Figure 5; Figure 4 provides the inset location for Figure 5).

The Kansa homeland and hunting grounds originally extended west along most of the major tributaries of the Kansas River into the present state of Colorado, but in 1825 they ceded most of this land to the United States government, keeping a long rectangular reservation that extended from their westernmost villages to the uppermost reaches of the Saline River. Dispossessed from this reservation in 1846, they were given a small reservation (some 400 square miles) near Council Grove, Kansas in 1859 to 1880, although a second reservation was established in northcentral Oklahoma in 1872 (Unrau 1971).

The Kansa village on the Missouri visited by De Bourgmont in 1724 is almost certainly the Doniphan site (14DP2), investigated by the Smithsonian Institution in the years prior to World War II. A few miles north of Doniphan is the Fanning site (14DP1), an Oneota village overlooking the Wolf Creek valley that probably represents a prehistoric Kansa village predating 1700 (W. Wedel 1959:535, 617, 636). The Oneota King Hill site (23BN1) in southern St. Joseph, Missouri contains some trade goods and may be an early contact-period Kansa site, although there is no historic documentation for it (Henning and Thiessen 2004:395–397; Shippee 1967). Since De Bourgmont's account of his visit to the area in 1714 and 1724 mentions no Kansa villages on the east bank of the Missouri, Henning (1993) believes this putative Kansa site predates 1714. A French connection is suggested by the presence of early seed beads, watermelon seeds, and peach pits.

The Ioway

In the 1600s the Ioway lived in southern Minnesota and Wisconsin, but they moved to northeastern Nebraska opposite present-day Sioux City by the early 1700s. They subsequently moved to modern Council Bluffs, Iowa, and then to villages in southeastern Iowa. By the late 1700s and early 1800s, the Ioway were living in a variety of villages on the Grand and Chariton Rivers in northcentral Missouri. Ioway villages are documented on maps in the Grand River

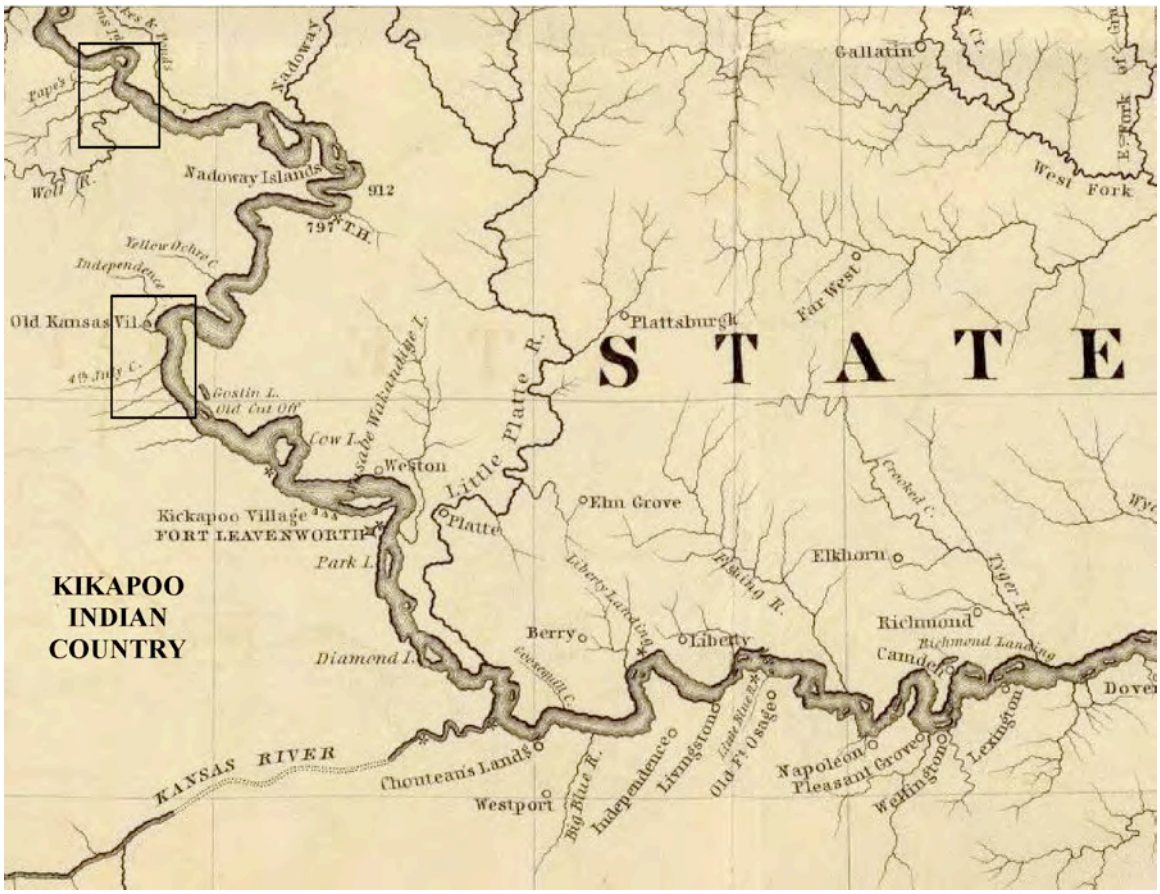

Figure 4. Base map showing inset locations for Figures 5 and 6.

valley, but archaeological sites there have yet to be verified (Roberts and Rickers 1996:29; Wedel 2001). The Ioway comprised a small tribe and mostly occupied a single village historically.

In 1824, the Ioway gave up their lands in Missouri, although some of them later settled along the Missouri River in the Blacksnake Hills in the vicinity of today's St. Joseph, Missouri (Mott 1938:255, 258). One of their camps there was visited in 1848 and 1849 by Rudolph F. Kurz, who left several sketches of them and of his Ioway wife, as well as illustrations of neighboring Kansa, Kickapoo, Fox, and Potawatomi Indians (Kurz 1937:29–60; see also illustrations in Kläy and Läng 1984). Other Ioway lived along the lower Platte River in Missouri near its junction with the Little Platte north of Kansas City.

They soon moved west of the Missouri River, when the Great Nemaha Reservation was established for them in 1836 in extreme northeastern Kansas and south of the Great Nemaha River in Nebraska. There they lived in two settlements consisting of mat- or bark-covered lodges and skin-covered tipis: none of these settlements has been recorded archaeologically. Later some Winnebagos left Minnesota and Iowa to join the Ioway and remained for five to nine years. The Ioway reserve was further reduced in 1854 when their lands were restricted to a small portion of the original reservation adjoining the Missouri River. Here they were assigned lands in severalty

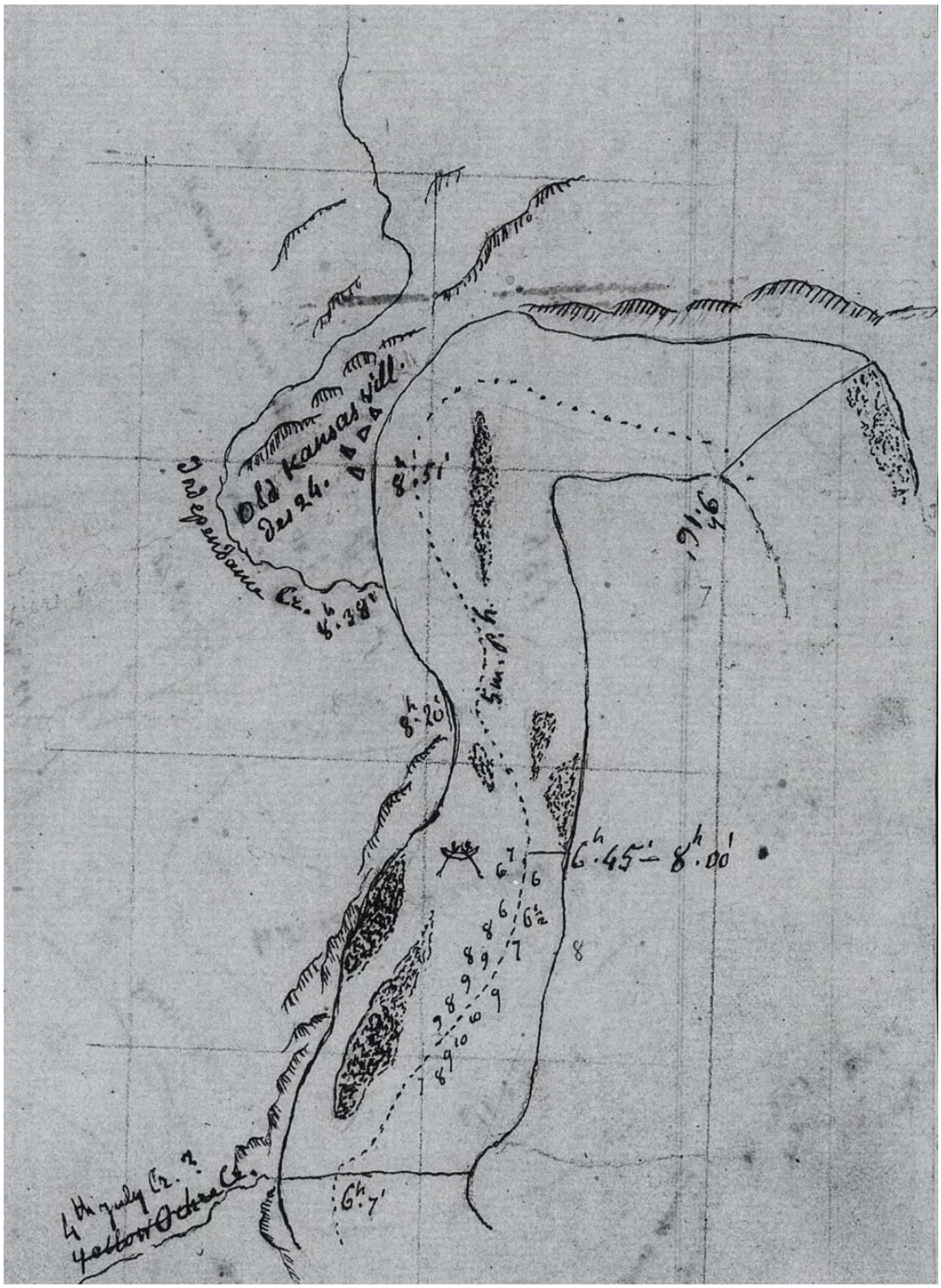

Figure 5. Excerpt from Nicollet 1839 map showing location of Old Kansa Village (Wood 1993:Plate 20).

and began farming. Between 1878 and 1881 many Ioways that objected to lands in severalty and who identified with their traditional lifeways moved to the northeastern part of Oklahoma Territory near modern Stillwater, where a small reservation was set aside for them (M. Wedel 2001:442).

OTHER TRIBES ENTER THE STATE

Twelve different Indian groups are historically recorded in Missouri as remnants of once-greater populations of eastern groups that entered the state following their displacement by Euro-American settlement and the intertribal upheavals that accompanied the arrival of Europeans. Migrations of some eastern tribes to lands west of the Mississippi River began even before the Louisiana Purchase in 1803, but the provisions of the Indian Removal Act, signed into law by President Andrew Jackson on May 26, 1830, greatly accelerated this movement. Some tribes came from as far distant as the Atlantic Coast; others arrived from what became the midwestern states. All of these groups were Algonquian speakers except the Iroquoian-speaking Cherokee, who may have hunted at times within southern Missouri in historical times even before their "Trail of Tears."

The Mississippi Valley between Cape Girardeau and Kaskaskia was for a time home to a number of displaced eastern Indians, especially during the last decade of the 1700s. In December 1797, Zenon Trudeau wrote that:

> Small parties of the Chavonnes [Shawnee], Loups [Delaware], Peorias, Illinois, Miamia [Miami], Otave [Ottawa], Mascutin [Mascouten], Kickapoux [Kickapoo], and Pouteatamia [Potawatomi] are scattered over our territory. Many of them are encamped close to our settlements, [and] carry on commerce or exchange as best please them (Nasatir 1990, Vol. 2:529).

These different groups are almost invisible archaeologically, although many if not most of them hunted at times west of the Mississippi River in Missouri.

The Sauk and the Fox

Surely the most important of the tribes to enter the state during historic times were the Sauk and the Fox, or the Mesquakie. Although the Fox are invariably associated with the Sauk throughout their post-contact history, they always maintained a separate identity. Despite the repeated alliances between them and their often-collaborative actions, the two tribes remained politically and territorially distinct. The hyphenation of their names as the Sac-and-Fox by the United States government invariably led to a misleading view of their relationship.

The first sound documentation of the Fox finds them living in the vicinity of Green Bay, Wisconsin in the late 1600s. Their movements between the early 1700s and 1842 carried them to a sequence of localities in the three-corner region of southwestern Wisconsin, northern Illinois, and northwestern Iowa. Between 1832 and 1847, they and the Sauk ceded their lands to the government and were assigned a reservation together with the Sauk in northeastern Kansas. Dissatisfied with the reservation and their relations with the Sauk, they returned to Iowa during the 1850s. The Iowa legislature legalized their residence at the Mesquakie Settlement on the Iowa River near the little town of Tama in 1856. Today, they are known as the Sac-and-Fox of the Mississippi in Iowa (Callender 1978a:636, 643–645). Their rapid movement through the state of Missouri probably left no major settlements and no verifiable archaeological sites attributable to them have been found.

The movements of the Sauk largely parallel those of the Fox, although they are more complicated and the history of one of their subgroups, the so-called "Missouri Band," is closely tied with lands that became northern Missouri. During the late 1600s to early 1700s, the Sauk

were living around Green Bay, Wisconsin. As for the Fox, an earlier home may have been around Saginaw Bay in southeastern Michigan, having removed westward as a result of attacks by the Iroquois. Between 1733 and ca. 1850, they maintained an informal alliance with the Fox.

The Sauk occupied various localities in southeastern Iowa and a settlement on the lower Rock River in Illinois between the late 1700s and the early 1800s. During the early 1800s, the Sauk divided into two politically distinct groups when the so-called "Missouri band" left the rest of the tribe, became independent, and moved south to become known as the Sac-and-Fox of the Missouri. The remaining Sauk and the Fox became the Sac-and-Fox of the Mississippi and became embroiled in the Black Hawk War of 1832.

The Sauk and Fox are frequently noted in the history of northern Missouri even before the separation of the Missouri band. A large contingent of Sauk, Fox, Sioux, Menominee, and Winnebago Indians, accompanied by a few British soldiers and Canadian traders, attacked St. Louis in April 1780. Although the raid was repulsed with little loss of life to the attackers, many of the settlers and their slaves perished (Nasatir 1932:243–251). During the 1790s, their attacks on the Missouria were so severe that the latter tribe was almost obliterated, the remainder fleeing to live with the Osage, Kansa, and Otoe (Bray 1961:219; Maximilian in Thwaites 1906, Vol. 22:246).

The Sauk were in a belligerent mood following the Louisiana Purchase in 1803 and declared war on the Osage, killing a number of them. Because they believed the United States was more favorable in activities and trade toward the Osage, they attacked a white settlement on the Cuivre River north of St. Louis and killed three settlers. There was little that the Americans could do in retaliation (Nasatir 1932:258–259). In 1804, the Sauk attacked outlying white settlements, killing hunters and destroying Nathan Boone's saltworks in the Big Bend area of the Missouri River. Things did not improve by 1808, for the Sauk were busily attacking other Indian families, stealing horses and slaughtering livestock belonging to white settlers, and ignoring requests to surrender the slayer of a white trader (Foley 1989:177, 203). However, matters calmed down considerably after a few years.

During the War of 1812, William Clark, superintendent of Indian Affairs in St. Louis, moved the "friendly" Sauk and Fox from the upper Mississippi to the south bank of the Missouri River in central Missouri. In doing so, they would be less prone to influence by the British to participate in hostilities against the United States. A trading post also was established near them, likely on Factory Creek at a locality a few miles downstream from the modern town of Lupus (Gregg 1938–1939). The Sauk and Fox settlement remained on the Missouri for the winter of 1812–1813 (Soikkeli 1999:9); despite this, no remains suggestive of this occupation are presently noted in the many archaeological sites recorded in that locality. The only archaeological site in the state that in all probability can be attributed to the Sauk is the burial site of two young women on a sandy knoll on a terrace on the east bank of the Chariton River north of the town of Kirksville in northern Adair County. It is estimated to date between about 1785 and 1809 (Kay 1968). A "Sakis" village is also shown on Joseph Nicollet's 1839 map at the mouth of Wolf River in Doniphan County, northeast Kansas (Figure 6).

The Sauk sold all of their lands in Iowa in 1842 and were assigned a small reservation in northeastern Oklahoma by 1846. The "Missouri Band" joined them. In 1869, the reservation was moved to another one in northeastern Oklahoma where most of them remain today (Callender 1978d:648, 651–654).

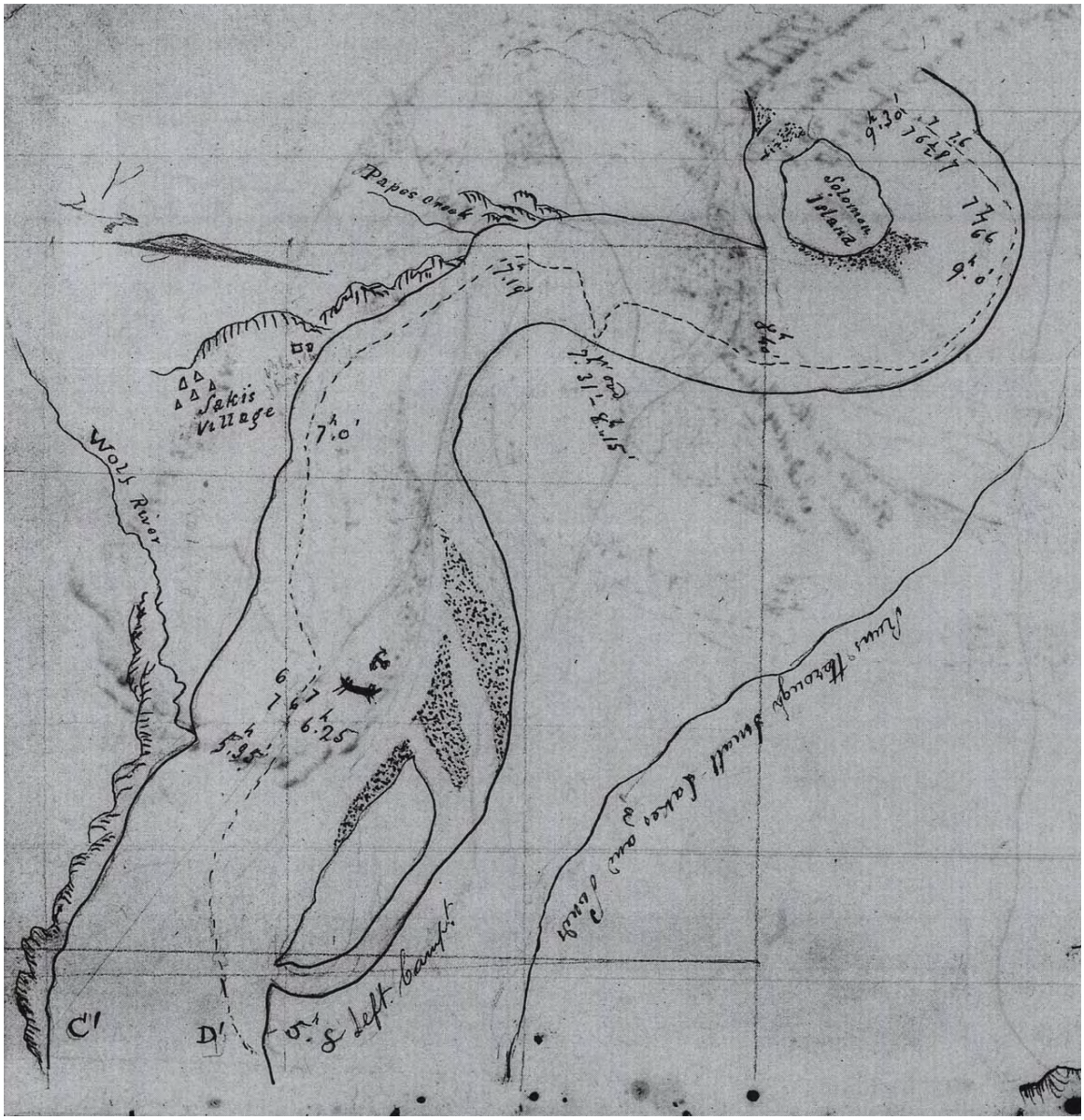

Figure 6. Excerpt from Nicollet 1839 map showing location of Sauk or "Sakis Village" (Wood 1993:Plate 23).

Kickapoo

The history of Kickapoo movements covers more of the Midwest and Great Plains states than that for any of the tribes that passed through Missouri. From their original mention by the French in southeastern Michigan in 1640, Iroquois raids forced them west into southern Wisconsin, though some returned for a time to a locality near the western end of Lake Erie. About 1729, they moved from Wisconsin into central Illinois on the Sangamon River and western Indiana on the Wabash River. At that time, they split into two bands—the Prairie Band, who occupied central Illinois, and the Vermilion Band, who lived on the west bank of the Wabash River and began to

absorb the Mascouten tribe. In 1763, a band of Kickapoos are said to have settled on the Missouri River west of St. Louis (Gibson 1963:91), and by 1804 there were small bands of Kickapoo living along the Missouri River, including one camp just upstream from St. Charles (Moulton 1984–2001, Vol. 2:245). Nothing specific is known of these occupations, although the Kickapoo actively continued raids against the Osage.

American settlement soon forced the Illinois Kickapoo further west. Following the war of 1812, a band of 63 families crossed into Missouri from Kaskaskia; some settled on the Osage and Pomme de Terre rivers, and others settled on the White River in southwest Missouri (Gibson 1963:97). In 1819, both bands agreed to treaties in which they gave up their lands for an area in southwest Missouri that lay south of the Osage River and west of the Pomme de Terre River (Kappler 1903:128). Their movement to this locality in Benton and Hickory counties south and west of the modern town of Warsaw occurred slowly over a period of 15 years (Callender et al. 1978:656, 662–666). There is little documentation as to where they lived there and no sites have been recorded. Local tradition suggests that a Kickapoo village was in Benton County near the mouth of the Pomme de Terre, and a trading post for them was said to be nearby (Wood 1961:110–111). However, there is no documentary confirmation for these sites, and any trace of Kickapoo residence in the locality in all likelihood has been lost beneath the waters of the Harry S. Truman Reservoir.

Late Woodland rock-and-earth mounds are common on the hills and bluffs nearby. Three of them contained Euro-American trade goods that clearly postdate their construction by prehistoric peoples. No discrete historical-period graves were found in them (perhaps because of disturbances by vandals), but three of the four mounds overlooking the town of Fairfield in the Fairfield Mound group (23BE6/2–3) contained pin brooches, an ear bob, part of a brass bell, brass and iron tinklers, and fabric. Wray-Martin Mound 2 (23BE128) just south of Fairfield also contained three rolled brass beads (Wood 1967:29–30, 37, 62, Figures 10, 15, and 26). It is tempting to suggest that these Euro-American goods derive from Kickapoo graves intrusive in the mounds, but the material is not diagnostic of any particular group.

The continued arrival of groups from east of the Mississippi soon depleted the available game, and by treaty in 1832 the Kickapoo moved from western Missouri to a reservation in 1839 in northeastern Oklahoma (Kappler 1903:366), though in a map drawn by Joseph N. Nicollet they are shown in a village (not labeled "old") just above Fort Leavenworth, Kansas (Wood 1993:Plate 19). There were many other subsequent movements of the tribe that are not relevant to this study that took some of them into Oklahoma and Texas and even into the province of Coahuila, Mexico, where they remained, leaving only the Kickapoos in Kansas living in the United States.

Shawnee

The original home of the Shawnee, at least during the latter half of the 1700s, was in the southern parts of modern Ohio. During recorded history, their very scattered groups never united into a single society, and the frequency and extent of their movements makes it difficult to summarize their activities prior to their arrival in Missouri. Bands began moving westward after the Revolutionary War and the period of warfare that ensued. Later, some Shawnees crossed into Spanish territory on the west bank of the Mississippi and settled into lands north of the town of Cape Girardeau. Two groups were involved in this settlement—the "Absentee Shawnee" between 1780 and 1815 and the "Black Bob Band" between 1790 and 1825. Both groups largely moved southwest into the Arkansas River valley in Arkansas between 1821 and 1831, but others moved west and lived briefly in villages west of the Mississippi. Other Shawnee traveled across the state

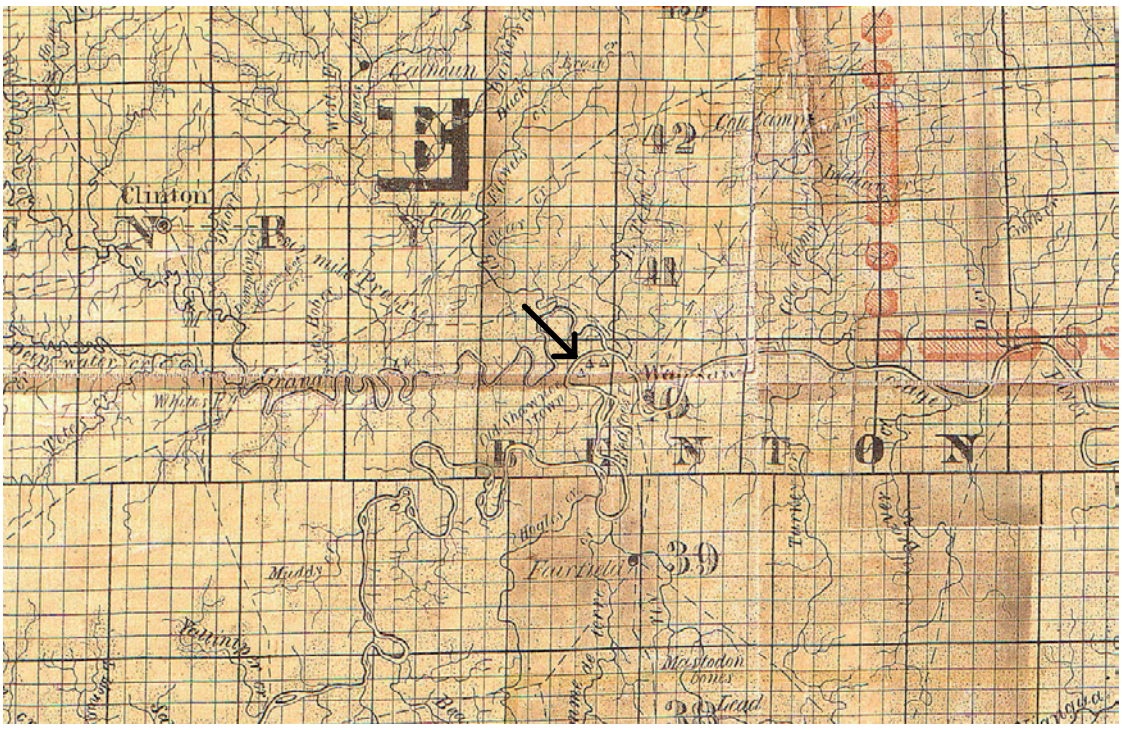

Figure 7. Location of "Old Shawnee town" at juncture of the Grand and Osage rivers (excerpted from Hutawa 1844).

of Missouri from western Ohio to a reservation in northeastern Kansas in 1834 (Callender 1978e:622, 630–633).

An unspecified group of Shawnee is documented on an 1819 General Land Office map for a township in Benton County as living in "Old Shawney Town" on the south bank of the Osage River directly opposite the mouth of the South Grand River. This location is also depicted on the map of the state of Missouri by Hutawa (1844) (see Figure 7). Today, the locality is beneath the waters of the Harry S. Truman Reservoir about one mile upstream from the dam near Warsaw, Missouri. W. R. Wood visited the locality with a metal detector in 1963, but found no trace of metal. The site perhaps had been buried beneath overbank deposits left by the Osage River (Missouri Archaeological Society site files for 23BE134).

Cherokee

The core homeland of the Cherokee from their early contacts with Europeans to the 1700s was in the Great Smoky and Blue Ridge Mountains in the western corner of North Carolina and adjoining parts of South Carolina and Tennessee. A treaty in 1785 with the United States left some Cherokee dissatisfied, and they moved west to the mouth of the St. Francis River and later to the White River in Arkansas. In 1788, they petitioned the governor of Spanish Louisiana in St. Louis to grant them refuge and, with his approval, a number of Cherokee settled into the area around New Madrid, Missouri (Kinniard 1946–1949, 2:255, and 3:406).

By 1799, parts of what are now St. Louis and St. Charles counties were deeded to some Cherokee by Spanish land grants. They were forced from these properties by the United States government after the Louisiana Purchase in 1803. Some refugees then migrated into what are

now Boone, Howard, Franklin, Randolph, and Macon counties in northern Missouri. Their descendants now call themselves the "Northern Cherokee Nation of the Old Louisiana Territory."

After Missouri passed legislation in 1838 that effectively outlawed Native Americans from living in the state, many Cherokee thereafter chose to dress and behave like local whites to conceal their identity rather than be forced to move to a reservation in Oklahoma. Their descendants still live in northern Boone County and elsewhere in northern Missouri and today are seeking federal recognition as a tribe (Northern Cherokee Nation of the Old Louisiana Territory 2009).

Cherokee claims to lands as far west as the Wabash River in Illinois and the Tennessee River in Tennessee were ceded between 1821 and 1835 (Fogelson 2004:337–341). In Georgia, however, the discovery of gold and the press of settlement led to efforts by the whites to remove them to Indian Territory in Oklahoma. Despite their progress toward a democratic system of government and other advances toward "civilization," treaties were ignored and the Cherokee were forced from their homes by the Indian Removal Act of May 26, 1830. The forced removal of the Cherokees from their homeland in eastern United States resulted in the "Trail of Tears," in which thousands died from exposure and malnutrition during the removal, as well as later from poor living conditions in their reservation in Oklahoma.

Four routes were taken to remove the Cherokee to Oklahoma Territory. One of them was by water, but two of the land routes took the Cherokee through southern Missouri into Oklahoma. The major trail began at Cape Girardeau and wound its way across the southern part of the state and through the town of Springfield; the other land route also began at the town of Jackson but passed only through part of southeastern Missouri. Four thousand Cherokee died on this trek to Oklahoma Territory and are buried along the trail, and still others succumbed after arriving in a new and unfamiliar environment. Limited archaeological investigations have been conducted along the northernmost trail in the vicinity of Springfield, Missouri (Jones 2008), and the Missouri Department of Natural Resources has established the Trail of Tears State Park near Jackson, in Cape Girardeau County, Missouri.

Potawatomie

The original homeland of the Potawatomie before 1641 was in southwestern Michigan along the southeastern shores of Lake Michigan, although they had moved to its western shore and occupied the Door Peninsula that adjoins Green Bay by 1665. They later expanded their range to include lands around the entire southern shore of Lake Michigan and as far west as the banks of the Mississippi River (Clifton 1978:725–727).

In August 1836, the Indiana Potawatomie negotiated and signed the Treaty of Yellow River, agreeing to vacate their lands within two years. By August 1838, nearly the entire group migrated peacefully to their new lands in Kansas except for the village of Chief Menominee; they were removed forcibly and 839 members marched west. It resulted in the so-called Potawatomie Trail of Death, in which typhoid fever and the stress of the march led to the death of more than 40 individuals. The caravan entered Missouri by way of Quincy, Illinois and passed through Palmyra, Paris, Huntsville, Lexington, and Independence, reaching their destination in Osawatomie, Kansas on November 4; less than 700 Potawatomi remained of those that began the journey (Winger 1939:43–53; see map in Bowes 2007:79). A few escaped to find refuge elsewhere.

Continued settlement of their lands by Americans moving westward, however, led to the displacement in 1841 of those few remaining in the east to a reservation along the Osage River in

northeast Kansas, while those living in Illinois and Wisconsin were brought together with the former group on the Kansas River (Clifton 1978:737–738). There are no verified Potawatomie archaeological sites known in Missouri, although hunting and raiding parties did enter and other groups passed through the state. A few individuals were buried along the route of the Potawatomie Trail of Death across northern Missouri.

Delaware

The Delaware originally lived in the Delaware Valley in New Jersey and in adjoining areas along the Atlantic seaboard, including Long Island. They consisted of two groups, the Munsee and the Unami, whose moves subsequent to European contact led them westward into southern Ontario, western New York, Ohio, Pennsylvania, Wisconsin, and Indiana. By 1789, at the invitation of the Spanish lieutenant governor, Don Manuel Perez, some Delaware and Shawnee moved to the vicinity of Cape Girardeau, Missouri, to provide a buffer between the Spanish settlements and the hostile Osage (Nasatir 1990, Vol. 1:42). Other smaller groups lived in widely scattered areas in the Midwest.

Following the Treaty of St. Marys with the American government in 1818, the main body of Delaware, principally those living in central Indiana near Indianapolis, were settled on the middle reaches of the James River in Missouri, many of them at a village called "Delaware Town" at a location about 12 miles south of present-day Springfield (Morrow 1981). From that base, the Delaware undertook long-range bison hunts far to the west and south, acts that led to conflicts with the Osage and Pawnee who also hunted there. Hostilities with these tribes and the poor hunting along the James River led to dissatisfaction with the locality, and the Delaware were granted new lands in northeastern Kansas in 1829. By 1831, the main body of them left Missouri for a reservation on the north bank of the Kansas River between Lawrence and Fort Leavenworth. Following the Civil War, the group finally moved to Oklahoma (Goddard 1978:220–224).

In 1822, a group of Delaware lived near one of the first Indian trading posts in southwest Missouri, one established for trade with them in 1822 by Joseph Philibert on the south bank of the White River a few miles above the junction of the James and White rivers. No trace of this post could be found in the 1950s. Another and later post for the Delaware was reputed to have been built on a high terrace against Philibert Bluff, on the north bank of the river just west of the mouth of the James River. Investigations there by the University of Missouri in 1953 revealed foundation stones, fragments of glass and glazed earthenware, but no evidence of trade goods (Wood 1983a:5–6). More recent archaeological and historical research on the Delaware presence along the James River by the Center for Archaeological Research at Missouri State University has been reported by Rees et al. (2000, 2002, 2003). A number of Delaware sites have been identified and at least four have been tested, resulting in the recovery of everything from scissors to silver brooches and earbobs to British and French gunflints.

4. HISTORIC BACKGROUND

By

W. Raymond Wood

INDIAN TRIBES IN MISSOURI

The primary early historic Native American residents of the present state of Missouri were five tribes that spoke Siouan-Catawba languages—the Missouria, Ioway, Otoe, Osage, and Kansa. The Siouan-Catawba languages also included the Mississippi Valley Dakotan tribes such as the Winnebago and the Santee, Sisseton, and Teton Sioux, among others. Among the major subdivisions of the Siouan-Catawba were the Chiwere speakers and the Dhegiha speakers (Goddard 1996b:322). The Missouria, Otoe, and Ioway spoke mutually intelligible dialects and, together with the Winnebago, comprise the Chiwere-Winnebago subdivision, while the Osage and Kansa Indians are closely related to the widely distributed Dhegiha-speaking Quapaw, Omaha, and Ponca. The Quapaw lived along the lower Mississippi River and the Omaha and Ponca lived on the Missouri River above the mouth of the Platte River.

It is popular to draw boundaries for the territories occupied by Native American groups. However, any such delineation of territory is ephemeral at best, since it depends on the time it is meant to depict. Groups did not remain regionally stable and the arrival of Europeans on the east coast led to dynamic tribal movements in what would become Missouri. Innumerable migrations characterized the historical period, in addition to far-reaching trading, hunting, and warfare patterns. Without firm documentation, the burial of a given individual in any part of the state cannot be ascribed to any historic group that occupied the locality where it was found. A review of trade, hunting, and warfare is therefore relevant.

Native Americans engaged in trade over long distances from the earliest times. Paleoindian projectile points have often been documented made of chert that is native to localities hundreds of miles from the site at which they are found. Archaeologists have documented region-wide trade from Archaic to historic times, trade that carried goods for a thousand or more miles across the continent (Ford and Webb 1956; Wood 1980). People traveling such long distances could well die of natural causes or from enemy action and be interred hundreds of miles from their homes.

Indian trails have been documented in many parts of the country and a number of them—some of them possibly of prehistoric origin—are reported for the state of Missouri. Some authors have mapped a number of trails that criss-crossed the state of Missouri, drawing on maps produced in the late seventeenth and early eighteenth centuries, and on early accounts such as those produced by George W. Featherstonhaugh and Stephen H. Long (e.g., Houck 1908, Vol. 1:225–232; Wood 1936) (see Figure 8). Those carrying goods to trade used these well-worn trails as did war parties. The distances that some groups traveled are surprising. For example, Missourias traveled to Detroit to battle the Sauk and Fox; Iroquois Indians from New York traveled as far west as Nebraska to raid the Pawnee; and Hidatsa Indians crossed what is now the state of Montana to raid Shoshones and others in the eastern Rocky Mountains. Such a list can be greatly expanded, but the conclusion is clear: *Native Americans were inveterate long-range traders, their concept of warfare sometimes led them across hundreds of miles to raid their enemies, and it was inevitable that some of them would die far from home*. The lack of firm documentation means that the grave of any individual in a particular region cannot be ascribed with certainty to any historic group that occupied the locality where it was found.

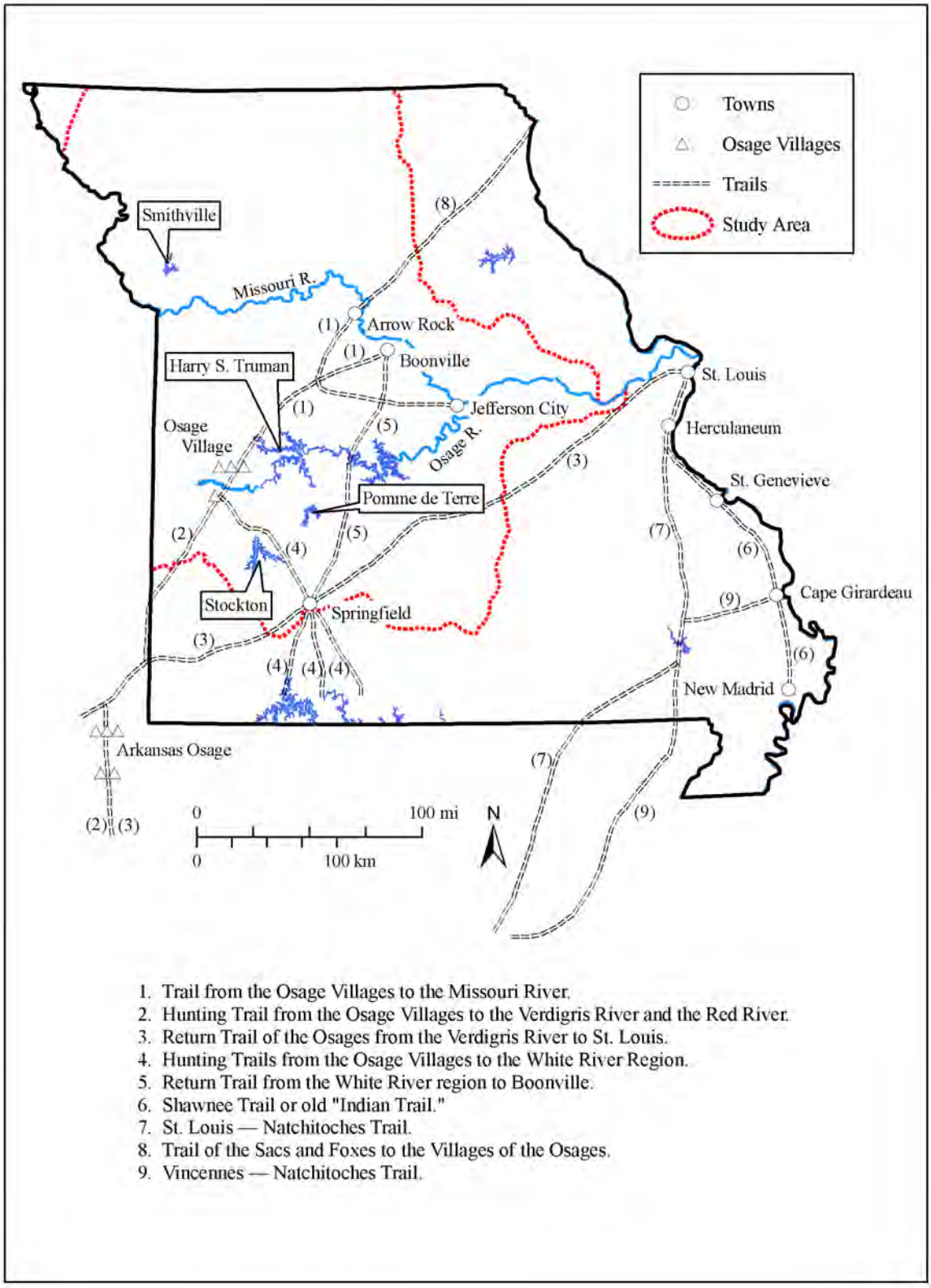

Figure 8. Reconstruction of trails in Missouri (adapted from Houck [1908, Vol. 1:226] and Wood [1936]).

CHIWERE-SIOUAN SPEAKERS

Otoe-Missouria

The earliest of the Chiwere speakers known to have been contacted in the present state of Missouri by Euro-Americans were the Missouria, the tribe that provided the name of the modern state of Missouri and the name for the major river that bisects it. When the Missouria were first contacted following the Marquette and Jolliet expedition in 1673, they were living in villages around the Big Bend of the Missouri River in what is today the center of the state of Missouri. Their homes originally consisted of oval bark-covered wigwams, but by the early 1800s they had adopted the four center-post earth-mantled lodge that typified and was borrowed from the earthlodge-dwelling residents such as the Otoe and Pawnee further west. The Otoe also erected bark lodges similar to those used by the Ioway and the Winnebago.

The Missouria were brought to the brink of extinction by intertribal wars in the early historic period, principally at the hands of the Sauk and Fox. The Missouria survivors therefore merged with their closest relatives, the Otoe, then living along the Platte River in present-day Nebraska, and with the Osage and Kansa. The lifeways of the Missouria are not well known because they became so integrated with the Otoe before documentation began of their way of life. It is therefore difficult to disentangle their respective traditions. Hence, this combined entry for the two tribes is based largely on the synthesis prepared by Marjorie M. Schweitzer (2001).

Both groups were sedentary village-dwelling gardening tribes that also depended greatly on hunting bison and on gathering wild plants. Like neighboring horticultural groups, they cultivated corn, beans, squash, and pumpkins. The women of each family tended their own river-bottom plots, the harvest of which belonged to them. The principal occupation of the men was hunting, primarily for bison, elk, and deer, although the long-range hunts of the historic period probably post-date the arrival of horses (Haines 1938:430, 433). On their spring and fall hunts, the Otoe, led by different leaders of the Buffalo and Bear clans, pitched their tipis in a camp circle with the entries facing east.

Their kinship system was based on patrilineal exogamous clans and the basic social unit was the extended family, which consisted of parents, their children, and often their grandparents and other relatives. Wives owned all family property except for the personal belongings of the men. Marriage patterns were dictated by membership in one of the seven (originally perhaps ten) clans, each of which had its own rituals, ceremonies, and duties. Hereditary clan chiefs, however, convened as a governing body with the primary leader or chief selected from the Bear Clan, the largest and most powerful clan. Associations such as secret societies, dance groups, and benevolent societies cut across the clans and helped alleviate potential tribal divisions (Whitman 1937:15).

Both the Missouria and the Otoe were organized in a three-tiered hierarchy. Deriving their power from heredity, the highest-ranking members included the chiefs, followed by warriors and their families. Commoner families made up the lowest rank. All of nature was permeated by *wakhada* (sacred power), which was accessed by means of dreams and visions emanating from the supernatural. A circle divided into four parts, each part having deep significance in various aspects of life, represented this power.

The Otoe males were trained as warriors, but they were organized for peace, not war, and they valued a good hunter more than an outstanding warrior. The duties of warriors included overseeing hunters, and punishing or whipping those who disobeyed the orders of the leader of the hunt. Such men were highly regarded and expected to protect the people in times of war and to look after the people in their village.

The entire village mourned for four days when someone died. Although each clan had its own manner of preparing the body for burial, the usual interment was in a tree or set upright in a pit grave facing north, the body covered with logs and earth. One's horse might also be strangled and its body left at the gravesite.

Ioway

During the 1600s, the Ioway lived primarily along the lower reaches of the Upper Iowa River, in extreme northeast Missouri, in adjoining parts of southeast Iowa, and across the Mississippi River in present-day Wisconsin. Their villages were on elevated flood-free terraces overlooking the stream bottoms in which they cultivated their gardens. Beyond their villages in the uplands were deciduous forests, and further to the west were tall-grass prairies that extended westward to the Missouri River and beyond. Mildred Wedel has admirably summarized what is known about this tribe (Wedel 2001:432–446).

> The women tended small gardens of corn, beans, and probably squash, and gathered nuts, fruits and other plant food, while the men hunted bison, deer, and elk. The men also planted tobacco and sacred maize for use in their ceremonies. Originally they hunted on foot, although they engaged in large-scale, long-range bison hunts in the extensive prairies to the west and northwest after they obtained horses. Little of their traditional culture was recorded until the early 1800s. In earlier times, they buried their dead in trees, but historically they placed the remains in a pit together with a variety of grave offerings.

Their villages consisted of lodges erected on a pole framework with a pitched roof and covered by woven rush mats or slabs of walnut bark. Some of these summer lodges measured 6 m (20 ft) in width and 9–12 m (30–40 ft) in length, large enough to house an extended family (Bushnell 1922:Plate 32b). Bark- or mat-lined pits were dug in the floors for storage of foods and other goods. During the winter, they occupied localities better protected from the elements, a single nuclear family living in smaller oval wigwams also constructed of poles and bark or mats. Some families also occupied the familiar Plains tipi during the winter. Only when the Ioways spent some time among the Otoe in the early 1800s did they build the four-post earthlodge common among the Plains village peoples. Like the Otoe-Missouria, a horse was often strangled over the grave.

The Ioway were bound as a tribe by an origin myth that gave names to their ten original exogamous patrilineal clans. By the 1800s, the clans were divided into two unnamed moieties, an element of their culture that disappeared in the 1900s. The head chief of the tribe in the spring and summer was the leader of the Buffalo clan, while that of the Black Bear clan led the hunt and other village activities in the fall and winter. Two prestige classes cut across the clans. One of the groups consisted of clan chiefs that occupied hereditary leadership roles in the tribe, and the other was composed of titled warriors and their families. Warriors could attain this rank by certain war exploits, including scalping an enemy. The remaining population had less wealth and more limited rights in society, more often being observers than participants in tribal ceremonies. Precontact sources on Ioway religious concepts are inconsistent and lack detail, although they probably shared a great deal with their Otoe-Missouria relatives.

DHEGIHA-SIOUAN SPEAKERS

Osage

The dominant Dhegiha-speaking tribe that occupied the southwest part of the present state of Missouri was the Osage, a group closely related to the Kansa Indians that lived to the northwest

of them. When French explorers arrived in the late 1600s, the Osage were living in several villages along the Osage River and its tributaries in present-day Vernon County, Missouri. Their hilltop villages of some 60–300 houses had a more regular settlement arrangement than that of their neighbors. In both their permanent villages and in hunting camps, their lodges were spaced along either side of a main east-west pathway, arranged according to clan and moiety membership. Their homes consisted of three different types. A rectangular bark- or mat-covered lodge, erected under a center pole supported by a line of center posts and having side doors, was the most popular, some of them 6 m (20 ft) in width and up to 30 m (100 ft) in length. Smaller dome-shaped lodges covered in the same manner were used in both their permanent villages and on hunting trips (Bushnell 1922:Plate 32a). The Osage never adopted the Plains-style tipi, living instead in small, rectangular, skin-covered tents that were open on both ends while on long-range bison hunts and while traveling (Chapman 1985a).

Osage culture was not described until 150 years after European contact. By this time, most of their tools and weapons had been replaced by white-produced alternatives (Bailey 2001:476–496). The former importance of hereditary chiefs and religious leaders had waned, leaving leadership to war leaders and young warriors. Subsistence, however, remained much the same. The men hunted bison, elk, deer, and other small game, while the women tended gardens of corn, beans, and squash and gathered wild foods. Hunted meat was, however, the principal item in their diet in the late winter and early spring except when hunting was poor. At that time, they fell back on their stores of corn and other garden products and dried or preserved fruits, prairie turnips, and water chinquapins.

A council consisting of the village chiefs planned the summer and fall tribal hunts; they divided the hunting areas between them so there was no competition for game. Before leaving for these hunts, their surplus food and valuable items were stored in bell-shaped pits in and near their villages. These hunts carried them well to the southwest of their villages into the Great Plains, as far west as the great bend of the Arkansas River in present-day Kansas. Other hunting parties ranged through most of the Ozark Highland south of the Missouri River and into present-day northwest Arkansas. The western bison hunts were under the control of the village chiefs and the warrior soldiers they appointed. Security was necessary, especially in historic times, for their hunting grounds also were visited by their enemies—the Pawnee, Comanche, Kiowa, and, later, the Cheyenne.

Twenty-four patrilineal clans were the basic units of tribal organization. These were divided into two moieties. The Tsizhu or sky or peace moiety contained nine clans, whereas there were 15 clans in the Honga or earth-and-war moiety. The community plan mirrored these divisions. The east-west pathway in the village symbolized the course of the sun and the passage of life. Homes of the Tsizhu moiety lined the north side of the pathway, whereas those of the Honga lined the south side. The five named Osage bands were the Little Osage, the Big Hill, Hearts Stay, Thorny Thicket, and Upland Forest. Traditionally, each band occupied its own village. Therefore, at one time, band and village were synonymous, each with its own hereditary chiefs and a full roster of 24 clans.

The all-pervasive force of *Wakanda* controlled the Osage people and their world. Prayers were directed to the evening and morning stars, the four winds, and the rising sun, which symbolized the birth of humans and the revitalization of all living things. The dead were wrapped in a robe together with personal possessions and food and were buried in a sitting position in a mound of rocks.

Kansa

Linguistically and culturally, the Kansa (more often called the Kaw) were most closely related to the Osage and, according to the Osage, their language differed from Osage no more than that which existed between the Osage bands (Bailey and Young 2001; Unrau 1971). Living to the immediate northwest of the Osage, their villages were along the Missouri River above the mouth of the Kansas River and along the lower reaches of the Kansas River itself. During the 1700s, they hunted across much of northwest Missouri, but ranged much further to the west along the drainages of the Kansas, Republican, and Smoky Hill rivers as far as present-day eastern Colorado. Because the Pawnee also hunted the center of this range, the Kansa might move south to hunt along the Arkansas River with the Osage.

Consistent with the lifeways of their Osage relatives, Kansa economy was based on hunting by the men, and gardening and gathering of wild foods by the women. After planting corn, beans, and squash, the tribe left on their annual summer bison hunt. The hunt was organized by three band chiefs that appointed a hunt leader each season; he in turn appointed men to act as hunt police who had the power to punish those who disobeyed the rules of the hunt. Returning to their villages, they harvested their crops, stored the surplus, and prepared for a winter hunt. At its conclusion, they broke into separate groups and spent the winter scattered through the prairies.

Permanent Kansa villages were composed largely of randomly placed circular earthlodges of the style built by the Pawnee and other Plains village tribes, as well as a unique variant of the earthlodge that was covered with bark, hides, or reed mats. The villages were set on high points overlooking their river bottom gardens. They also lived in rectangular wigwams that might measure 7.6–x–18.3 m (25–x–60 ft). Portable dwellings used by hunting parties consisted of a frame structure covered with painted skins and, probably, tipis.

The Kansa were divided into three bands. They consisted of the Kahola, Rock Creek, and Picayune, each of which apparently occupied separate villages. A fourth and later unnamed band was primarily of mixed blood. Two levels of political power were present in each village: village chiefs and hereditary chiefs. A council consisting of the entire village elected a village chief, and a tribal leader was elected from among the three village chiefs. The highest-ranking bands chose the men to hold the position of the hereditary chiefs, some of whom might be women if no brother or son was available to hold the office (Bailey and Young 2001:470–471).

Sixteen patrilineal clans were present, each of which ranked in decreasing importance following the five highest-ranking ones—Earth, Sun Carrier, Big *haga*, Elk, and Deer. These clans were grouped into two moieties of eight clans each that, in camp, may have been arranged in two lines similar to the community plan of the Osage (Bailey and Young 2001:470). Little is known of Kansa religion. One creation story appears to be a syncretic version of a Kansa and Judeo-Christian tradition. The voice of *wakkada*, the creator, was often heard in thunder. More consistent with native beliefs, *wakkada* also alluded to lesser sacred powers, a powerful shaman, or a variety of sacred objects. The death of a prominent man normally called for a raid on an enemy tribe. Kansa warriors would not return until they had killed an enemy. The method(s) of inhumation is not known.

ALGONQUIAN SPEAKERS

Several members of the great Algonquian language family inhabited eastcentral Missouri and westcentral Illinois during historic times. Still others lived for a short time or passed through the state of Missouri at a later date. These included the Delaware, Shawnee, Kickapoo, and Sauk and Fox, most of the latter four tribes having originally lived in what is now the Michigan peninsula, northern Indiana, and central Ohio; the Delaware originally lived on the east coast in New Jersey,

southeastern New York, and eastern Pennsylvania. Relations between the varying Algonquian-speaking tribes, especially between those of the so-called Illinois "Confederacy," were interrelated and convoluted.

Illinois "Confederacy" (Cahokia, Kaskaskia, Michigamea, Peoria, Tamaroa)

These five independent tribes, whose homes clustered primarily along the Mississippi River near and around the mouth of the Missouri, shared a common language and origin tradition. They are often described as a confederacy, but there is no evidence of any overarching or intertribal organization to merit this designation. The several dialects of Illinois are most closely related to those of the Miami. At the time of initial European contact, some 12 tribal terms are mentioned in varying accounts. Some of the references were probably to subtribal bands, but some may have been alternate or variant names of the same groups; others probably vanished when they were absorbed into other Illinois groups. Charles Callender (1978b:673) has summarized these tribes collectively as the Illinois. In time, the Kaskaskia absorbed the Tamaroa and Michigamea, whereas the Cahokia united with the Peoria. Ultimately, two bands of the Miami, the Wea and the Piankashaw, united with the Peoria in 1854 to become the Confederated Peoria.

The Illinois had strong cultural ties with other Central Algonquian groups, especially with the Miami, but ties also were close with the neighboring Chiwere-speaking Missouria, Otoe, and Ioway. Despite the fact that the Illinois were said to be linguistically and culturally identical to the Miami, the two did not coalesce until the mid 1800s. Before that time, the two tribes often were hostile to one another and to many of their neighbors, although at the time of contact a common threat for each of them was from Iroquois raiding parties. The little that is known of the Illinois largely dates from the time of Marquette and Jolliet until about 1700, and is limited to the Peoria and Kaskaskia; almost nothing is known of the culture of the Cahokia, Michigamea, and Tamaroa.

Illinois summer villages often were large and could extend for long distances down the banks of rivers, as illustrated by the Peoria village that Marquette and Jolliet visited in 1673. It contained 300 lodges; a Kaskaskia village was observed a few years later that had 351 lodges. These lodges consisted of large rectangular pole structures covered with rush mats, one very large lodge perhaps serving as a ceremonial or ritual center. Summer camp lodges and winter lodges were much smaller, but mats also covered them. Women collected wild foods and tended gardens of corn, beans, and squash. The men hunted and fished. A summer bison hunt of some six-week's duration was undertaken after the gardens were planted. After the harvest, the inhabitants deserted the village to establish winter camps.

Each tribe appears to have inhabited a single village or occupied a specific part in any multi-tribal settlement. Only by referring to the customs of neighboring tribes can one infer that these villages were led by war and peace chiefs. Details of their bison hunts are limited to the familiar custom of having men act as soldiers to enforce hunt rules. Their lodges probably contained either multiple families or extended families, since their lodges contained up to four fireplaces. The existence of patrilineal clans is postulated on the basis of several animal "devices" mentioned in an early account. Clans themselves disappeared by 1760, as had any trace of possible moieties.

Descriptions of religion are equally vague, although there is mention of an overall being, the Master of Life and the source of visions that were sought by young men. Details of rituals other than those associated with warfare, shamanism, and the calumet dance are sparse. Members of each sex buried their own dead together with food and other grave goods.

Miami, Piankashaw, and Wea

The Miami Indians spoke an Algonquian language so closely related to Illinois that early narratives speak of the two as being culturally and linguistically the same (Callender 1978c). Early French accounts described the Miami as including the Atchatchakangouen, Kilatika, Mengakonkia, Pepikokia, Piankashaw, and Wea, although only the latter two tribes survived into the 1800s, and the Pepikokia appear to have been absorbed by the Wea. It has been hypothesized that the various Miami-speaking groups were once subtribes of a larger entity, for they all recognized a common origin despite being fully independent (Trowbridge 1938:12). The closest ties of the Miami were with other Algonquian-speaking tribes to the northeast. At the time of European contact, they sometimes shared a village in Wisconsin. However, the Miami were only recorded in the early 1800s after major cultural changes had been made following the introduction of the fur trade. Data on the Piankashaw and Wea are also almost nonexistent.

Gardening was an important activity. Miami women cultivated large fields of corn. They also gathered wild roots and tubers. By the time Miami culture was recorded, bison were gone, although suggestions of communal hunts for them are preserved in the equal distribution of game taken by hunting parties. Historically, fish had probably replaced the summer hunt so that game would be taken when their hides were in prime condition for the fur trade.

The Miami occupied summer villages and winter camps. Summer villages consisted of oval wigwams covered by rush mats; winter dwellings were smaller and covered with bark or hides. Villages were sometimes scattered for miles along a riverbank, with one of the larger lodges being used for public occasions. Five to ten patrilineal clans were originally present, but they disappeared by 1860. The clans were once organized into two moieties, Sky and Earth, similar to those of the Dhegiha and Chiwere tribes. Like their neighbors, each village had a patrilineally inherited peace chief and a war chief, though a daughter would inherit the position if a son were not available.

An ever-present deity called the Master of Life remained important to them into the 1800s, but the significance of the sun in their rituals declined. Only one ritual activity is known in any detail, that of the *Midewiwin*. Its attendance by all in a village was compulsory. An elaborate *Midewiwin* described in the late 1600s was held for the safe return of a war party.

Kickapoo

The Kickapoo spoke a Central Algonquian language most closely related to those of the Sauk, Fox, and Mascouten. From an original home likely in southern Wisconsin they moved successively through the historic period from Illinois and Missouri as far southwest as the provinces of Coahuila and Sonora, Mexico. Ultimately they absorbed the Mascouten. Each of these groups shared important linguistic and cultural ties with the Shawnee, a group from which legend suggests they had earlier separated. There is an extensive literature on the Kickapoo, although details of their early-contact lifeways are not well known (Callender et al. 1978:656–667).

By the time they moved to Illinois, the several loosely defined and rather fluid political and territorial bands had been arranged into the Prairie and the Vermilion bands. The units were autonomous and of approximately the same size. They acted on occasion in unison, but they more often did not. The bands were composed of an uncertain number of clans that probably were patrilineal, as with other related Central Algonquin speaking-groups, and it is possible that at one time they were divided into moieties. Almost nothing is known of traditional political organization, although councils of clan leaders apparently were important in historic times.

Kickapoo religious beliefs centered about a hierarchy of manitous or spirits. First among them was the Great Manitou, or Creator, followed in succession by the four winds, the sky, the sun, moon, stars, and earth.

Shawnee

The Shawnee spoke a Central Algonquian language closely related to those of the Kickapoo, Sauk and Fox, and Miami. Indeed, the Kickapoo originally probably broke away from the Miami. Because of their more eastern location, they shared many elements with eastern and southeastern cultures, for their closest relations were with the Delaware on the east coast and Pennsylvania, the Iroquois in New York, and the Creek in the southeast. The latter connection appears to have been a very old one, although they were often at war with other southeastern tribes.

The most important Shawnee subgroups consisted of five patrilineally derived divisions. Each division was thought of as a territorial, political, and ritual unit that centered on a town carrying its name. Each division also had specific responsibilities for tribal welfare, linking the divisions as a tribe. Two of the divisions provided tribal political leadership: one or the other provided the tribal chief. The other three divisions provided tribal ritual, war, and health. Secondary subgroups consisted of fluid territorial groups that became permanent independent groups by the late 1800s. These groups consisted of the Eastern Shawnee, Cherokee Shawnee, and Absentee Shawnee. Any description of Shawnee culture must be drawn from accounts that span several important periods in their lives (Callender 1978e:622–635).

Their semi-permanent towns consisted of rectangular bark-covered lodges arranged around a large structure used for rituals and other gatherings. One of them at Old Chillicothe measured a little more than 18 m (60 ft) square, whereas another at Lower Shawnee Town measured almost 28 m (90 ft) in length. Burials, not accompanied by grave offerings, were in cemeteries near the village.

The gardening and gathering of wild foods by women and the hunting of wild game by men characterized economic life at Shawnee towns. In the fall, the people would leave their villages and establish winter camps in sheltered river bottoms, from which hunting trips would forage for deer, bison, bears, mountain lions, and turkeys for two or three weeks. They returned to their towns in the spring, planted crops, and remained relatively stationary until about August, when they returned to their winter camps.

Traditionally, there may have been as many as 34 exogamous patrilineal clans among the Shawnee, but these were later reduced to twelve. By 1859, the clans had reorganized into six groups. Important social and political positions were assigned to individuals in different clans.

Sauk and Fox

The lives and culture of the Sauk and Fox (or Mesquakie) are so parallel and interconnected that it is preferable to treat them as one unit, despite numerous small differences between them. Nonetheless, they both have distinct identities and histories, although they formed a formal alliance from the mid 1700s to the mid 1800s. Both groups spoke a Central Algonquian language that linguists often hyphenate as Sauk-Fox, a language closely related to that of the Kickapoo. There are sufficient similarities between these groups and the Mascouten to believe that they were close neighbors before European contact. Both the Sauk and the Fox were originally residents of eastern Wisconsin near Green Bay. Their subsequent movements carried them to northwestern Iowa and southern Wisconsin, then through Iowa and Missouri to reservations in Kansas and Oklahoma. The so-called Missouria band of Sauk made a wide detour through eastern and

northern Missouri (Callender 1978a:636–647, 1978d:648–655). Early in the contact period, the Sauk also were closely linked with the Potawatomi.

Sauk and Fox economy depended almost equally on hunting and gardening. The women tended gardens of corn, beans, and squash, with some reliance on gathering wild foods, while the men hunted. Before bison vanished in the prairies of Iowa in the early 1800s, Fox men engaged in annual bison hunts. Thereafter, deer were the main source of protein. In the fall, the Fox (and probably the Sauk) left their homes and traveled to the west, where they broke first into small camps and then into larger ones in protected river bottoms. They returned to their villages in the spring and the men went on summer hunts.

The semi-permanent Sauk and Fox villages were built along streams near their gardens, moving when firewood became too scarce. The pole houses of the Fox were about 12–18 m (40–60 ft) in length and some 6 m (20 ft) in width, covered by slabs of elm bark. Fox houses were arranged in two parallel rows separated by an open area that was used for community activities. Winter camps occupied oval or circular, dome-shaped pole structures covered with cattail mats. The Sauk differed from their neighbors in congregating most of the tribe in a single summer village.

The Fox had a system of eight or more exogamous patrilineal clans named for real or mythical persons who had assembled a sacred pack for which annual ceremonies were held. The Sauk had 12 clans. Each major pack was celebrated annually by two separate ceremonies. Fox society involved a division between war and peace organizations, each with its own leader, although a council met to deliberate and choose among options that affected the entire tribe. The paramount leader among the Sauk was chosen from the Sturgeon clan.

Fox religion divided the universe into an Upper or sky region, and a Lower or beneath the earth region. The Great or Gentle Manitou ruled the Upper region, but numerous other manitous or spirits were identified with the four directions, the sun, the earth, and other cosmological and natural features. The dead were buried in an extended position and later covered by a small wooden shed.

Delaware

The Delaware spoke dialects of two closely related Eastern Algonquian languages—Munsee and Unami. The Munsee-speaking people lived in northern New Jersey and southeast New York, whereas the Unami speakers lived in southern New Jersey and in eastern Pennsylvania. Consisting of linguistically and culturally similar bands that never formed a single political unit, the name Delaware was given them only after they had moved west and abandoned their homelands along the east coast. Their movement west was fragmented, leaving them in widely scattered localities in southern Ontario, western New York, Wisconsin, Kansas, Missouri, and Oklahoma. These movements were complicated by their many poorly documented divisions and mergers (Goddard 1978:213–239).

The many different and local subgroups are known under a wide variety of names and had varying forms of alliances. Local groups also cooperated in hunting drives, in self-defense, and in relations with the Iroquois and Europeans. Their single-band villages depended on hunting and the gardening of corn and other cultigens. A given lineage appears to have provided the leader or chief of a given local group, although a general council of the adults commonly made important decisions. The succession of leaders could be either matrilineal or patrilineal.

In the fall of the year, open areas and undergrowth in the forests were burned to prevent abandoned gardens from growing over, but were also important means for driving and trapping

game. This was the season most important for hunting, especially for deer, bear, turkey, and other small game; moose were tracked in inland areas. They left their villages in the winter to occupy small lodges in protected areas, planting their crops of corn, beans, and squash in the spring, taking in ocean fish and shellfish, and hunting during the summer.

Villages consisted primarily of multiple-family longhouses, usually measuring about 6 m (20 ft) in width and often 30 m (100 ft) in length. Such longhouses might be home to eight or more families. These bark-covered homes were partitioned so that each family had its own space and fireplace. Communities often were surrounded by a log stockade, whereas the houses might be widely scattered when not fortified. Religious beliefs and ceremonies are poorly known, although a green corn ceremony was held at the time of harvest. It and other ceremonies are sketchily described. The dead were buried in pit graves in a sitting position accompanied by food and grave goods, mounded with earth, and enclosed by a fence.

IROQUOIAN SPEAKERS

Cherokee

The Cherokee speak a language that is the sole member of the Southern Iroquoian branch of the Iroquoian linguistic family, a language that diverged from Northern Iroquois thousands of years ago (Fogelson 2004). When first visited by the European explorer Hernando de Soto, they occupied parts of the southern Appalachian Mountains in eastern Tennessee, western Virginia, North Carolina, and northern Georgia. Their subsequent expansion in all directions was terminated by the expulsion of most Cherokee to northwest Arkansas and north Oklahoma in the early 1800s, culminating in the infamous “Trail of Tears” (King 2004).

Cherokee culture shared a great deal with some of the elaborate chiefdoms in the Southeast, but by contrast their society was noncentralized, egalitarian, and fluid. Their towns, often enclosed by a post palisade, consisted of dwellings set near or around a ceremonial and political center consisting of either an elevated octagonal or circular, semisubterranean structure. This structure was erected on a pre-existing mound of earth. The center may also have included an open plaza and the residences of chiefly priests and other officials. Palisades largely vanished in the historic period, and settlements became more dispersed and were built along riverways. Households consisted of separate wattle-and-daub buildings that were sleeping and eating areas, a cookhouse, and elevated storage structures.

Their diet consisted of garden produce grown by the women and meat hunted by the men. With men’s help, the women grew corn, beans, and squash, and gathered a wide variety of wild foods. Deer was the primary game, although small numbers of bison and elk were hunted, in addition to a number of other game animals including bears. Birds, especially passenger pigeons and turkeys, also were important, as were the numerous varieties of fish in southeastern waters.

The Cherokee were divided historically into seven matrilineal, exogamous clans, although there may originally have been as many as ten. Representatives of the different clans were responsible for given ceremonial roles in some towns. Political responsibility lay in the white or peace organization, and the red or war organization, the leadership of which in some cases resided in particular clans and may have been hereditary. By 1827, the effect of Euro-American contact led to a more centralized leadership and the adoption of a constitutional government patterned on that of the United States.

A wide range of spiritual beings was believed to require respect and propitiation, with some evidence for an original creator. Most of their religious ceremonies were conducted in the

summer by individual towns together with satellite or affiliated settlements. The dead were usually buried in cemeteries, although they might be interred in or near the floor of the house.

5. MIGRATION LEGENDS

by

R. Bruce McMillan

The earliest European record of tribes west of the Mississippi River in lands that are now part of the State of Missouri was shown on the Marquette Map of 1673–1674 (Tucker 1942:2, Plate V). This map contained information based on observations made by Father Jacques Marquette during his expedition with Louis Jolliet down the Mississippi River in 1673. In his narrative entitled *Recital of the Voyages and Discoveries of Fr. Jacques Marquette of the Company of Jesus in the Year 1673* (Hamilton 1970:47), Marquette identified several Indian tribes living west of the Mississippi River, based on information that he had received when he visited the Iliniwek village just west of the Mississippi River near its confluence with the Des Moines River.

The Jesuit priest wrote that the "Pekitanoui" (Missouri) is a river of considerable size that comes from a great distance to the west and that discharges into the "Missisipi" (sic). He went on to say that along its banks are many villages of "savages" (Kellogg 1917:249). Shea (1852:268) helps identify the native groups by presenting a comparative table of names shown on the Marquette map with more modern tribal names.

The Marquette map of this unexplored country is necessarily vague (Figure 2), but three of the tribes occupied villages in locations that were almost certainly in what became Missouri: the "Pe-warea" (Peoria) in the northeast corner of the present-day state (village visited by Marquette and Jolliet); the "Ouchage" (Osage) further west and south of the R. Pekitanoui (Missouri River); and the "We-messouret" (Missouria) in the central part of the state. Marquette places the Moingwena, an Iliniwek group, northwest of the Peoria at a location that appears to be in southern Iowa. In addition, he records six tribes west and northwest of the Missouria and Osage that are most likely in the current states of Kansas and Nebraska. Two of these can be identified from Marquette's names—"Kanza" and "Maha" —as the Kansa and the Omaha.

Of the three tribes Marquette located in Missouri, the Peoria spoke an Algonquian dialect, while the Missouria and the Osage were Siouan speakers (Goddard 1996a:4, 8). The Peoria will not be dealt with in detail since the tribe lived primarily east of the Mississippi River and, when living in Missouri, were inhabiting lands far to the east of the reservoirs that are the subject of this review. The historical treatment of the Missouria and Osage, however, will be the focus of this assessment.

The Reverend J. Owen Dorsey was the first to classify the languages of the Missouria and the Osage Indians as belonging to the Siouan language family. He placed the Missouria along with the Iowa and Otoe into a language he termed *Chiwere*, one that contained two dialects and which was closely related to the Winnebago (Dorsey 1885a:919–920). He aligned the Osage with four other closely related dialects spoken by the Kansa, Omaha, Ponca, and Quapaw, into a language group he termed *Dhegiha* (Dorsey 1885a, 1890). The Chiwere- and Dhegihan-speaking peoples were Siouan groups that Dorsey believed had migrated into the lower Missouri River valley sometime prior to European contact (Dorsey 1886).

MIGRATION LEGENDS OF THE CHIWERE SIOUX

Authors beginning in the early nineteenth century recorded that informants representing Chiwere-speaking tribes claimed that, based on oral tradition, their groups had originated from a location north of the Great Lakes. This account can be traced to Stephen H. Long who wrote in his journal in 1819 of a nation composed of tribes that later would be identified by Dorsey as being Chiwere speakers (Dorsey 1885a). Long's account reads as follows:

> This great nation … originally resided somewhere to the northward of the great lakes, and on their emigration southwardly, after performing a considerable journey, a large band of them, called *Ho-ro-ge*, or Fish Eaters, from their fondness of fish, separated from the main body, and established their residence on the margin of a lake. This band is now known by the name of Winnebagoe. During the journey … another band separated from them on the Mississippi, and received the name of *Pa-ho-ja*, or Gray Snow, which they still retain; but are known to the white people by the name of Ioways, or Aiaouez. [Yet] another band seceded from the migrating nation, and established a village at the mouth of the Missouri river; from which circumstance they received the name of *Ne-o-ta-cha* or *Ne-o-ge-he*, signifying those who build a town at the entrance of a river; they have been known to us only by the name of Missouries (James 1823:338–339).

Long further stated that tradition among the Otoe suggests that they distinguish themselves by the name Wahtohtata, a designation that was applied to the nation at the period of their separation from the Missouries on the Mississippi River.

Gallatin (1836:127) repeats that the Iowas, Otos, Missouris, Omahas, and Poncas[1], together with the Winnebago, came from the north. He noted that the Winnebago stopped on the banks of Lake Michigan, while the other tribes continued on south, crossing the Mississippi and then occupying the lands where they were found by Europeans. He said that the Missouria originally settled at the junction of the confluence of the Missouri and Mississippi rivers (Gallatin 1836:127), but were later driven from this location to a place farther up the Missouri River.

Although these earlier accounts addressed the migration legends of the Chiwere Sioux, it is Dorsey (1886) who is generally accorded the recognition for illuminating the ethnogenesis of these Chiwere-speaking tribes. Specifically, he noted that according to tradition, after having parted from the Winnebago at Green Bay, the Iowa, Missouri, and Oto moved westward to the Iowa River, where the Iowa stopped. The remaining two tribes continued westward, reaching the Missouri at the mouth of the Grand River. Here, on account of a dispute, the Oto withdrew and moved farther up the Missouri River. The Missouria remained here and settled in the Big Bend area of the Missouri River in what is today Saline County.

MIGRATION LEGENDS OF THE DHEGIHA SIOUX

The Dhegiha Sioux—the Osage, Kansa, Omaha, Ponca, and Quapaw—were once living together as a single nation in the Ohio River valley according to Dorsey (1886:215). There, they were known to the Iliniwek tribes as the "Arkansa" or "Alkansa."[2] In fact, the Jesuit missionary

[1]The Ponca Indians are Dhegihan-Siouan speakers and are not included by most authors as part of the migration legends of the Chiwere-speaking tribes.

[2]Various spellings—Arkansa, Alkansa, Acansea, Akansea– are found in the early French Jesuit translations of the Algonquian term for the Quapaw, as well as the Ohio River where oral history indicates the Quapaw once lived.

Father Gravier in 1700 mentioned that the Illinois and Miami Indians both referred to the Ohio River as "the river of the Akansea," because the "Akansea" formerly dwelt there (Shea 1861:120). Early theorists believed that since most Siouan-speaking tribes resided west of the Mississippi River, the few eastern tribes who spoke Siouan must have emigrated into the east. Hale (1883:1), the first individual to record the Tutelo language, discounted this theory by demonstrating that the language spoken by eastern Siouan-speakers was what he termed an "older form." Soon thereafter, most students of Indian languages believed that Siouan-speaking groups had migrated from the east to the west.

The idea of westward migration was reinforced by a legend of an Osage Indian chief who informed George Sibley, the factor at Fort Osage, that according to tradition his tribe had emigrated from the east in great numbers where the population had become too dense for their hunting grounds (Featherstonhaugh 1844:70–71). He described landmarks along the Ohio River where they had dwelt and where the nation began to separate. They followed the river and those who turned upstream once they reached the Mississippi River, arriving at the confluence of the Missouri and Mississippi rivers. Here again they split, some followed the Mississippi north while others advanced up the Missouri River (Featherstonhaugh 1844:70).

The story related by Sibley is very similar to the migration legend detailed by Dorsey nearly forty years later. He indicated that, during the westward migration, the Dhegiha-speaking nation separated at the mouth of the Ohio River, with one group descending the river and becoming known as the *U-ga'-qpa* or Quapaw, meaning the "downstream people." The remaining portion of the nation turned northward and ascended the Mississippi River above its confluence with the Ohio, thus taking the name *U-ma^{n}'-ha^{n}* or Omaha, or "those going against the wind or current" (Dorsey 1886:215). At the mouth of the Missouri River, the Omaha remained for a period of time near the site of present-day St. Louis. Then they ascended the Missouri River to an extensive peninsula on the river having a high mountain as a landmark. Here, according to the informants from the Kansa and Osage tribes, their ancestors, including the Osage, Kansa, Omaha, and Ponca, dwelt together (Dorsey 1886:218). Sometime later, the nation separated and broke into the four above-mentioned tribes with the Osage moving to the upper reaches of the Osage river and the Kansa to the Kansas River, and with the latter two tribes immigrating farther up the Missouri River. McGee (1897:53) believes this migration must have taken place no later than A.D. 1500, since it preceded De Soto's discovery of the Mississippi River valley.

The De Soto entrada found the "Capaha" or Quapaw already established on the western bank of the Mississippi River in 1541, although still a considerable distance above their later position at the mouth of the Arkansas (Mooney 1894:10). Mooney (1894:10–11) mused that:

> the absence of Siouan names along De Soto's route in the interior country held later by the Osage is significant. The inference would be that the Muskogean[3] tribes were already established in the southern region … before the Siouan tribes had left the Mississippi.

Mooney suggests that the reason that Algonquian tribes referred to the Ohio River as "the river of the Akansea" was that the Quapaw brought up the rear when leaving the Ohio River and thus their name lingered longest in the traditional memory of the Illinois and Miami, and they were still in the vicinity of that stream when encountered by De Soto. Modern scholars question whether De Soto actually made contact with the Quapaw. Hoffman (1993:141) believes that an

[3]Rankin (1993:220) has argued that *Pacaha*, the village visited by De Soto that some authors have ascribed to the Quapaw, is more likely to have been occupied by Tunican-speaking people. He concludes that the Quapaw were late arrivals in this part of the Mississippi River valley.

encounter was unlikely because of the absence of Siouan language names and the lack of any mention by the Spaniards of Quapaw bark-covered long houses. He concludes that "historical, ethnological, and oral tradition data suggest that the Quapaw are latecomers to Arkansas who drove the Tunica out when they settled … [perhaps] after 1543."

SUMMARY

There are several variations of these migration legends but all tend to contain a common theme of southwestward movement by Chiwere speakers and westward movement among the tribes composing the Dhegiha-speaking nations. Multiple versions of migration legends were recorded among members of the same tribe and, various versions were incorporated into the oral history of the different Siouan-speaking groups. Francis La Flesche cites several different versions of the Dhegiha migration told by individuals of the Osage and Omaha tribes. He relates that rituals, myths, legends, and stories were all products of oral tradition; and that "any thought or event affecting the life of the tribe [and] transmitted by this means often lost some of its important details; … [stressing that] a story might be told in many versions" (La Flesche 1917:459).

The various migration legends of the central Siouan peoples all tend to surround a common theme, that of southwestward movement by Chiwere speakers and westward movement among the tribes composing the Dhegiha-speaking nations. These central Siouans, both the Dhegiha- and Chiwere-speaking peoples, experienced a series of schisms, migrations, and amalgamations before emerging as the Siouan tribes of the prairies met by Europeans. Their traditions convey a picture of recurrent splintering and regrouping.

> As they moved, they sometimes amalgamated with other Dhegihan-speaking peoples, as evidenced by the presence of a Kansa clan in the Omaha tribes, an Osage clan among the Poncas, and a Ponca clan among the Kansas, Osages, and Quapaws. They retained aspects of the cultures from which they emerged and absorbed some of the cultures of the people they met: Quapaws demonstrated Mississippian cultural influences, Kansas incorporated Oneotan influences, Osage took over elements of both, and Poncas and Omahas adopted traits from the Caddoan-speaking Pawnees and Arikaras who were there before them (Calloway 2003:60).

6. OSAGE ORIGINS

by

R. Bruce McMillan

The Osage Indian tribe controlled the territory south of the Missouri River that included southern Missouri and parts of northern Arkansas after European contact and throughout the eighteenth century. Thus, the Osage are germane to any discussion of affiliation with earlier prehistoric groups that occupied Corps of Engineers' lands in western Missouri south of the Missouri River. That would include the Harry S. Truman, Pomme de Terre, and Stockton reservoirs. The purpose of this section is to review the literature and summarize the various theories on the geographic origin of the Osage Indian tribe and whether or not they can be related to archaeological complexes that preceded them in the reservoir areas.

Osage oral history suggests that the tribe migrated into the upper Osage River basin from an ancestral home in the Ohio River valley. Most archaeologists, with some notable exceptions, agree that the Osage were late immigrants into the area. In fact, the Osage sites on the various branches of the Osage River in Vernon County suggest that by the time the Osage arrived there they were already actively carrying on commerce with European traders. Several different theories have been espoused to account for the geographic origin of the tribe and to identify archaeological complexes that could conceivably be affiliated with this Dhegihan-speaking group. The propositions that can be framed as hypotheses are summarized below.

OHIO RIVER VALLEY

The Ohio River valley was postulated as the place of origin for the Dhegiha-speaking tribes as early as the mid-nineteenth century (Featherstonhaugh 1844:70–71). Dorsey (1886) later claimed that the Dhegiha Sioux—the Osage, Kansa, Omaha, Ponca, and Quapaw—once lived together as a single nation in the Ohio River valley where they were known to the Iliniwek as the "Arkansa" or "Alkansa."[1] The Jesuit missionary Father Gravier in 1700 elaborated by saying that both the Illinois and Miami Indians referred to the Ohio River as "the river of the Akansea," because the "Akansea" formerly dwelt there (Shea 1861:120). Although these early accounts are based on oral tradition, at least one early map does show the Akansa located on the lower Ohio River (Winsor 1895:107).

One of the principal proponents of an Ohio Valley homeland for the Dhegiha-speaking Siouan peoples was John R. Swanton, who championed his position in a series of papers on the history of the Siouan peoples (Swanton 1923, 1943). When discussing migrations of these tribes, he maintained that the geographic positions of tribes speaking Siouan dialects reflected former contact, with traditions that pointed to the Ohio Valley (Swanton 1943:66). Countering his claim was James B. Griffin (1942, 1960), who stated emphatically that there was no "sound historical

[1]Various spellings—Arkansa, Alkansa, Acansea, Akansea, Akansa—are found in the early French Jesuit translations of the Algonquian term for the Quapaw, as well as the Ohio River where oral history indicates the antecedents of the Quapaw and other Dhegiha-speaking tribes once lived. We will use "Akansa" unless quoting a previous author.

evidence for believing that the central Ohio Valley was the point of dispersal for the Siouan speaking tribes" (Griffin 1942:279). Griffin went on to say, "this is not to deny the hypothesis that the central Ohio Valley could not have been such an area …, [but] it must have been at a period far removed from that of the Fort Ancient occupation." He argued that an Ohio Valley connection could only be tested by comparing material from known Siouan sites in the Chiwere, Dhegiha, Dakota, and Akansa areas with archaeological material from the Ohio Valley (Griffin 1942:280). As Parks and Rankin (2001:104) declare, neither side was ultimately able to marshall convincing proof for their claims.

Another line of evidence to support affinities among groups that might relate back to a "core area" or homeland is language. Most linguists accept Dorsey's classification of the Siouan language and believe that the Dhegiha subgroup of Mississippi Valley Siouan dialects spoken by the Quapaw, Osage, Kansa, and Omaha-Ponca reflect a place of common origin (Parks and Rankin 2001; Rankin 1982, 1988). The place of origin cannot be discovered through linguistics alone, and linguists tend to cite oral traditions as evidence that the Ohio Valley was the original homeland for these Siouan-speaking groups (Parks and Rankin 2001:104).

Recently, based on archaeological data, some researchers have advanced a hypothesis that the Dhegiha Sioux are descendants of peoples who moved out of the upper Ohio River valley as late as the seventeenth century after the initiation of raids by the Iroquois nation. The latter became a superior force and far more aggressive after receiving improved flintlock firearms from the Dutch in the 1640s. Drooker (1997:337) notes that groups from Madisonville left their Ohio River homeland sometime during the first quarter of the seventeenth century and suggests as one option that they may have settled toward the western prairies near Oneota sites, occupied by people who were closer to the rich sources of bison hunting. Although acknowledging that their departure was influenced by Iroquois League hostilities, she also believed there was a pull generated by the first French trading posts in the Great Lakes and the Illinois country.

Jeter (2009:373–376) is also a proponent of a very late Dhegiha-Siouan migration from well up the Ohio Valley. He suggests that this migration took place around 1660 and that their homeland was actually farther up the Ohio Valley in the Kentucky-West Virginia-Ohio borderlands, a region occupied by protohistoric peoples that he identifies as "eastern Fort Ancient" (Jeter 2009:373). Dates for eastern Fort Ancient terminate about A.D. 1650 and it is the first well-documented complex in the Ohio Valley to produce evidence of longhouses. Jeter believes that house types are more solid evidence for connections between archaeological manifestations and ethnographic descriptions than ceramics or other artifact types. Reinforcing this is the fact that the longhouse is one of the most long-lasting Quapaw traditions, maintained well after their acceptance of European tools. For that matter, the Quapaw still maintain a long, rectangular tribal meetinghouse today (Hoffman 1990:222).

Jeter reminds us that the archaeological evidence for a connection with eastern Fort Ancient sites is in agreement with Dhegiha-Siouan migration legends. He subscribes to the notion that the eastern Fort Ancient proto-Dhegiha Siouans moved down the Ohio Valley to the Mississippi River, where they separated and migrated to the historic locations recorded for the Omaha-Ponca, Osage-Kansa, and Quapaw (Jeter 2002:214). Supporting a late migration argument for at least the Quapaw, if not other Dhegihan-speaking tribes, is their apparent absence in northeast Arkansas at the time of the de Soto expedition. Although Dan Morse (1990, 1991) has argued that Pacaha, a town site identified in the de Soto chronicles, was a Quapaw settlement, others have questioned this ascription and suggested the occupants could just have likely been Tunican speakers (Hoffman 1993a, 1993b). Hoffman calls attention to the discordances between what is known of historic Quapaw architecture, village distribution, ethnology, and linguistics with the putative

Quapaw archaeological remains in northeast Arkansas (Hoffman 1993a:134). Indian place names and personal names recorded in northeast Arkansas by the de Soto narrators appear to be Tunican in origin; none appear to be Siouan, nor have any longhouses been recorded on the archaeological sites (Rankin 1993). It was not until the 1673 Marquette-Jolliet expedition that there is solid historical evidence of the Quapaw residing in Arkansas near the confluence of the river named for the tribe. Puzzling, however, is the fact that definitive Quapaw sites have yet to be identified.

Several historians have accepted the premise that the Akansa were late migrants out of the Ohio Valley (Baird 1980; Hyde 1962:64). Some writers have speculated that sites in the Wabash-Ohio River area may represent seventeenth century Dhegiha-Siouan villages (Hathcock 1983:17). This late protohistoric complex, named Caborn-Welborn (Green and Munson 1978), is more likely a late Mississippian assemblage, one that is interpreted by most archaeologists to represent descendents of the Angel chiefdom. The Angel polity of southern Indiana collapsed around A.D. 1400 (Pollack 2004:2). Caborn-Welborn houses are typical Mississippian wattle-and-daub-covered, wall trench forms that clearly contrast with the long houses associated with the central Dhegiha-Siouan tribes (Pollack 2004:102).

Although the Ohio River valley is clearly identified in the oral traditions of Dhegihan-speaking tribes as their homeland, a location supported to a certain degree by linguistic evidence, there is still a dearth of archaeological data to support such a proposition. If indeed migrations did originate in the Ohio Valley, then the timing of movements of these people is another issue. Jeter (2009), as discussed above, argues for a very recent, mid-seventeenth century migration following the initial Iroquois raids. Contrasting with this is the timing applied to the separation of the Siouan languages by the linguists that may give some hints of migrations. Springer and Witkowski (1982:74) propose that the proto-Dhegiha separated from the proto-Chiwere-Winnebago ca. A.D. 1000 and the Quapaw, Kansa, Osage, and Omaha-Ponca separated about A.D. 1300. A more recent analysis has the Dhegiha separating from the Chiwere ca. A.D 600–700 (Rankin 1997; see Alex 2000:215). One can only conclude that the evidence at present is inconclusive.

OZARK HIGHLAND AND ADJACENT PLAINS

Early archaeological investigations in the southwest Missouri, northwest Arkansas, and northeast Oklahoma area of the western Ozark Highland identified archaeological complexes that were believed to be antecedents of the Osage Indians (Baerreis 1939, 1941; Harrington 1924a). Later, Carl H. Chapman, who spent much of his professional career researching the Osage Indians (Berry et al. 1944; Chapman 1946, 1952, 1959a, 1959b, 1974b, 1974c, 1982; Chapman, ed. 1985; Chapman and Wiegers 1985), became an adherent to the thesis that the Osage tribe evolved *in situ* in the western Ozarks. One of Chapman's primary interests was linking historic Osage sites (Figure 9), dominated by Euro-American trade goods, with the earlier protohistoric and prehistoric archaeological record. The dramatic change from native-manufactured material culture to European trade items made tracing the roots of historically acculturated tribes a difficult proposition.

Early in his career, Chapman utilized a paradigm that was popular during the World War II era, the Midwestern Taxonomic System (McKern 1939), to classify the remnants of native-manufactured items (ceramics, and stone and bone tools) still retained by the Osage. He was not completely comfortable using this approach, but he proceeded "for the sake of giving some indication of the things to be looked for in tracing the Osage by means of archaeology" (Chapman 1946:25). He noted that the Osage culture was late in time, already named, classified linguistical-

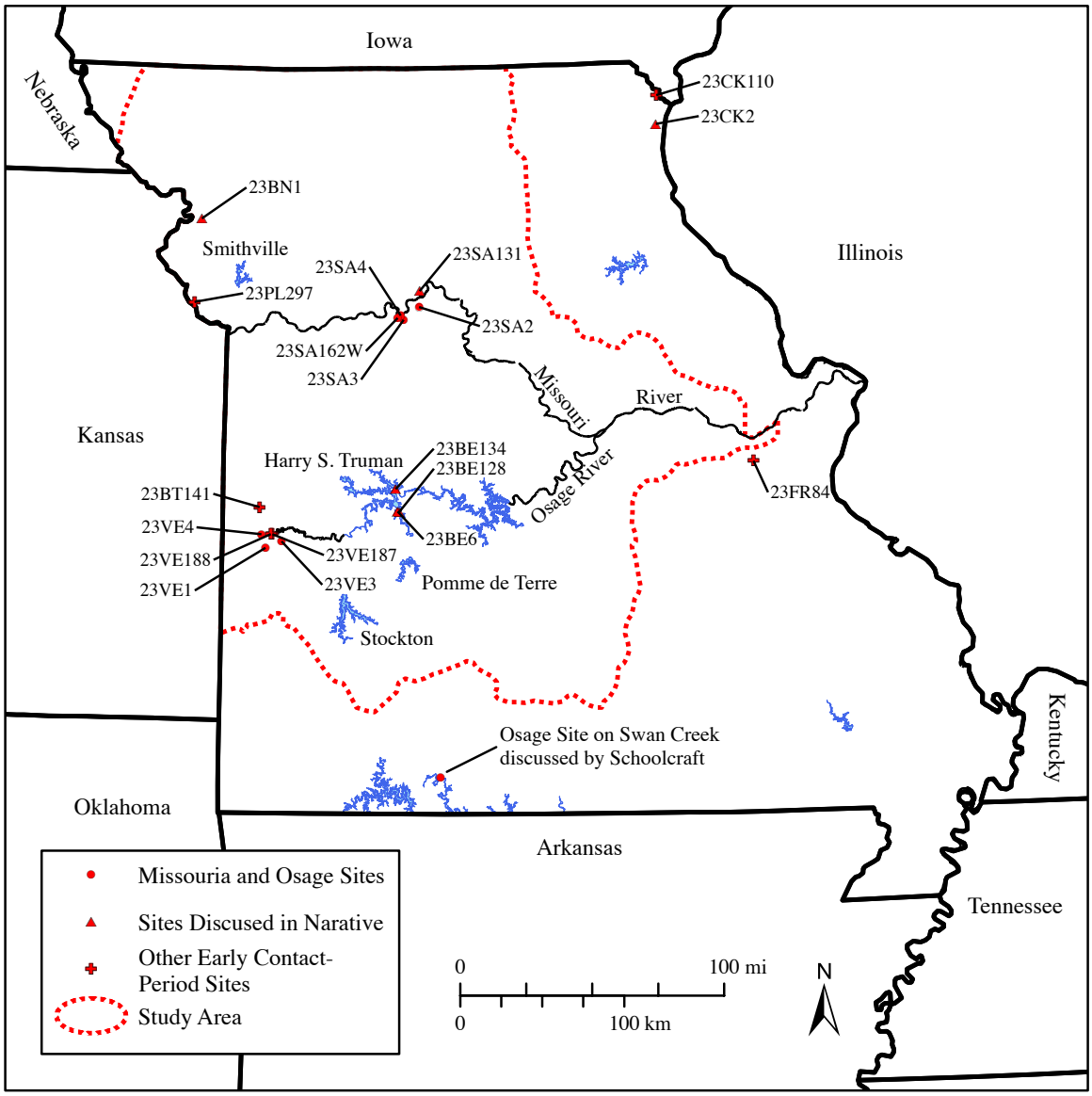

Figure 9. Missouria, Osage, and other early historic contact-period sites, recorded and/or mentioned in the ethnohistorical literature, or recorded in site files.

ly, and had lost most of its older [native] cultural elements. Nevertheless, he used the McKern system to classify the Osage material as Oneota.[2] Specifically, he placed the Osage in the Oneota aspect of the Upper Mississippi phase of the Mississippian pattern (O'Brien 1996:463–464).

Chapman (1946:52) related the Osage native material culture to three prehistoric complexes in southwest Missouri, northwest Arkansas, northeast Oklahoma, and northeast Kansas that were considered at the time to be affiliated with Oneota (Griffin 1937b; Baerreis 1941). These included

[2]Griffin (1937b) thought that Harrington's (1924a) "Top-Layer" culture would eventually be classified as Oneota.

the "Top-Layer" culture in Missouri and Arkansas (Harrington 1924a:17–20, 1924b:7), the Neosho focus in Oklahoma (Baerreis 1939:2–4, 1941:125–126), and the "latest culture" in northeast Kansas (Harrington 1924a:19–20). Baerreis believed that the Neosho focus was both Oneota and ancestral to the Osage and Kansa. Harrington (1960:180–181) later referred to the Top-Layer culture as the post-Bluff-Dweller culture. He identified the Top-Layer (post-Bluff-Dweller) culture and the "latest culture" of northeast Kansas as Siouan, remains left by either the Osage or Kansa. Chapman agreed that these "Oneota" units, indigenous to the territory historically occupied by the Osage, were ancestral to these Dhegiha-Siouan speakers. In his *The Archaeology of Missouri* II, Chapman added an additional unit that he called the Jakie aggregate. He reasoned that bands, clans, extended families, or other scattered social units combined to form the Osage tribe during Late Mississippian or Terminal Prehistoric times (Chapman 1980:228). He summarized:

> The Osage probably developed in the northwest Arkansas, northeast Oklahoma, southeast Kansas, and southwest Missouri areas as a result of the break-up of the Mississippian period phases in southeast Missouri and northeast Arkansas in the period A.D. 1350–1500 and concomitant dispersal of families and clans into the western Ozark Highland and Prairie Peninsula (Chapman 1985b:46–47).

Among his approaches, Chapman used a biogeographical method to identify plants and animals that appeared in myths, legends, or as names of social divisions among the Osage to see if significant plant or animal distributions would link to specific geographic areas (i.e., to help identify an area of origin). For the most part, key plants or animals sacred to the Osage have widespread distributions in the Midwest and eastern United States. Chapman identified one important lacuna in Osage mythology, the absence of giant cane (*Arundinaria gigantea*). He suggested that this omission must mean that the Osage were not from the southeastern culture area or in intimate contact with southeastern Indians. Interestingly, the use of cane was widespread among the people who represented the Ozark Top-Layer culture, as evidenced from the many perishables recovered from dry shelters along the Missouri-Arkansas border (see Harrington 1960; Scholtz 1975). Giant cane also grew extensively in the Mississippi alluvial valley of southeast Missouri and northeast Arkansas where Chapman proposed the ancestors of the Osage originated. He left this incongruity unexplained.

Several archaeologists have subsequently questioned Chapman's hypotheses on the origin of the Osage Indian tribe. Of the complexes Chapman associated with Dhegiha origins, the Neosho focus[3] is most often mentioned. Dates for the Neosho phase suggest a range between A.D. 1400–1650 (J. Brown 1984b:25; Cobb 1976:599; Dickson 2002:209; Rohrbaugh 1984:270). However, Ray and Lopinot (2008:86) have argued recently for a slightly longer temporal range of A.D. 1300–1600. The Neosho phase is currently considered a late Caddoan phase and does not represent a population ancestral to the Osage (J. Brown 1984b; Perttula 1992; Vehik 1993; Wyckoff 1980).

Vehik examined Dhegiha origins by comparing material and non-material cultural traits between Dhegiha peoples and the Caddoan peoples who lived geographically adjacent in the Arkansas River valley and the southern Plains. Based on archaeological evidence, Vehik demonstrated that Caddoan peoples living within and adjacent to the four-corner area were

[3]This unit was originally classified under the Midwestern Taxonomic System (McKern 1939) as the Neosho focus (Baerreis 1940; Bell and Baerreis 1951; Freeman 1962). Contemporary sources refer to it as the Neosho phase (J. Brown 1984b:20–21; Dickson 1991:195; Ray et al. 2006:205; Thomas and Ray 2002)

indigenous to the region and had deep roots into the past (also see Wyckoff 1980). She inferred that:

> … if Dhegihan origins were in the study area, Dhegihan societies would have lived immediately adjacent to Arkansas River Valley and/or Plains Caddoan societies. If a Dhegihan presence in the study area could be traced back into the eighteenth century AD as Johnson (1991:63) proposed, then a lengthy period of close proximity to Caddoan-related societies would be indicated (Vehik 1993:233).

Long-term proximity between two groups should result in some cultural exchange that would be manifested in material or non-material culture. There are, however, few similarities between the Osage and neighboring Caddoan societies. Thus, she concludes that the study area prior to the eighteenth century was associated with Plains Caddoan or Arkansas River valley Caddoan groups, not Dhegiha-Siouan peoples (Vehik 1993:241).

Yelton (1991:137–139) argued that Chapman's comparisons of Osage material culture with late prehistoric archaeological units in the four-corner area were flawed and that Chapman changed his mind about an Oneota origin when he observed that other archaeologists no longer classified the Top-Layer culture or the Neosho phase as Oneota. Yelton systematically examined and rebuked each one of the archaeological units that Chapman identified as being proto-Osage. He asserted that the Top-Layer culture was nothing more than a mixture of late-prehistoric materials, most of which were derived from the Caddoan tradition, and that the Jakie aggregate was essentially a resurrection of the Top-Layer culture. On the issue of the Neosho phase, Yelton stressed that Osage assemblages contain diagnostic Oneota, not diagnostic Neosho phase artifacts. The northeast Kansas assemblage that Harrington (1924a:19) described from the Park collection was Oneota, some of which may have been from the well known Leary[4] and Fanning sites (Hill and Wedel 1936:10–11; Wedel 1959:131–171). Thus, Yelton concludes that one of Chapman's four possibly proto-Osage groups can be identified as Oneota.

Because Chapman had disassociated his "proto-Osage" complexes with Oneota, he had to account for the fact that the pottery found at the Great Osage Brown site (23VE3) and the Little Osage Plattner site (23SA3) displayed strong similarities to Oneota ceramics (Figure 9). He explained this as the result of diffusion, or as he articulated it: "… close relations with … peoples to the north could be responsible for the resemblance of Osage cultural materials to the Oneota Aspect" (Chapman 1952:146). As we will see later, some archaeologists argue that Osage culture developed from an Oneota tradition and that their material culture reflected that tradition and was not simply a product of diffusion.

As alluded to above, Chapman not only believed that they originated from Mississippian societies in the Mississippi valley and became the proto-Osage populations scattered over the southwestern Ozarks and adjacent prairies, but he also suggested that the newly constituted Osage culture lost most of its aboriginal Mississippian elements and absorbed through diffusion those of the Oneota cultures living to the north in the Missouri River valley (Yelton 1991:140).

Before concluding, we need to mention the interpretation of rock art by a team of archaeologists working within the Fort Leonard Wood Army reservation along tributaries to the Gasconade River. Edging and Ahler (2004:106–109) and Kreisa et al. (2002) have related their interpretations of rock art found there to symbolism found in Osage and other Dhegiha-Siouan cosmology. The Fort Leonard Wood researchers identify what they term "site complexes," a

[4]The Leary site is just north of the Kansas state line in Richardson County, Nebraska.

construct that includes open-air habitations and processing camps, rock shelters and caves, rock cairns, and rock art. The various types of sites within each of their complexes are thought to share cultural and temporal affiliation. All are assigned to the Late Woodland Maramec Spring phase (Reeder 2000). Based on their interpretation of archaeological evidence from Fort Leonard Wood and ethnohistorical data, Zeidler and Edging (2009) assert that there is a clear Dhegiha presence in the area beginning ca. A.D. 500. This is a date when the Maramec Spring peoples, noted for their ceramic style, mound building, and rock art, purportedly immigrated to the area.

When describing the rock art, the authors are struck by Robert Hall's (1997:56) suggestion that the bisected oval or "vulvar motif" may represent a mortar and pestle, or *Ho'-e-ga*, the Osage ritual name for earth. They also note that the symbolism represented by the depiction of a speckled-breasted raptor is consistent with the Osage's veneration of the spotted hawk (cf. peregrine falcon). The Osage cosmos is based on a dichotomy of two divisions—the earth and the sky. The gender-related motifs are representative of the earth, while avian representations relate to the sky. Based on this symbolism, Kreisa et al. (2002:131) conclude that:

> Site complexes provide a unique opportunity to investigate this interconnection of the sacred and secular in the Late Woodland period, our last archaeological link to the Historic-era tribes in the northern Ozarks.

Specifically, the petroglyphs offer glimpses into the rituals of a late prehistoric culture whose descendants may be represented in one or more of the historic tribes [e.g. Osage] known for Missouri (Edging and Ahler 2004:109).

Here, it is important to stress that many would question the interpretation that Late Woodland Maramec Spring-phase people were Dhegihan speakers, much less antecedents of the Osage. The evidence is simply too tenuous to draw such an affiliation. Much of the symbolism discussed is widespread among late prehistoric and historic Indians in the eastern United States and Prairie-Plains. For example, Duncan and Diaz-Granados (2002:191) point out that the Cahokia core area, near the confluence of the Missouri and Mississippi rivers, was the initial source of a great part of the symbolism we associate with the Southeastern Ceremonial Complex (e.g., Brown and Kelly 2000; Diaz-Granados et al. 2001; Emerson et al. 2003). Gender-related motifs as well as falcon imagery appear as part of this iconography. Mississippian symbolism is recorded in a number of rock art sites in eastcentral Missouri east of the Gasconade drainage and Fort Leonard Wood (Diaz-Granados and Duncan 2000). It may be noteworthy, however, that there is more robust evidence for a continuum of these ideas that carry forward in time from the Mississippian heartland into the oral traditions of Dhegiha-Siouans.

AMERICAN BOTTOM/CENTRAL MISSISSIPPI RIVER VALLEY

A number of archaeologists who have worked in the American Bottom in Illinois believe that Dhegihan-speaking tribes of the Prairie-Plains are the descendents of peoples who once formed the Mississippian polity at greater Cahokia. Foremost among these are Robert L. Hall and James A. Brown, both of whom have identified a plethora of socioreligious and symbolic features prevalent among the Osage and cognate tribes that speak to continuity between the ethnographic present and the prehistoric past (Brown 2004, 2007a, 2007b, 2011; Hall 1997, 2004, 2006). Hall and Brown suggest that if one is looking for tribes descended from the ancient Cahokians, they need look no further than the Osage and their Siouan-speaking neighbors. Hall (2006:191) asserts that "when the Mississippian populations dispersed from centers like Cahokia the stage was set for their reappearance on the familiar landscapes of … history in the guise of societies like those of the Siouan-speaking Indians of the plains and prairies." He calls attention to the fact that the

Mississippian communities of scattered farmsteads, excluding the ritual center of Cahokia itself, were organized very similarly to Indian communities of the post-contact period.

James Brown (2007a:57) finds cultural continuity between what he identifies as the Braden style (cf. Brown 2007b; Phillips and Brown 1978:34), a thirteenth-century Mississippian Southeastern Ceremonial Complex (SECC) art form, and the post-contact Southern Siouans of the Prairie-Plains. Cahokia was the homeland of the Braden style (Brown and Kelly 2000:498). The Braden style displays a narrative power of detailed imagery, often in explicit activities, and the all-important historical and geographical connection of this style with the site of Cahokia, the Eastern Prairie geographical area, and with the Dhegiha-Siouan speaking peoples—the Osage, Quapaw, Kansa, Omaha, and Ponca (Brown 2007a:77). Falcon imagery, a strong component of the Braden style, permeates the ancient beliefs and practices of the Osage.

Great symbolism was attached to Osage bundles as well as to their various parts (Bailey 1995:50). One of the sacred objects of the bundle was a blue-painted hawk skin. At every initiation ritual, the hawk was reconsecrated by a priest. The hawk skin "symbolized the courage of warriors of each clan." The choice of the hawk to symbolize the courage and combative nature of the warrior proved satisfactory to all of the people, for the courage of the hawk was considered as equal to that of the eagle, while the swift and decisive manner in which the smaller bird always attacked its prey ever excited the admiration of the warriors (La Flesche 1921:65). The *wa-xo'-be*, made of the skin of a hawk, was a symbol of courage carried by a commanding officer on his back when leading his men in an attack. Both J. Brown (1975, 1996) and Byers (1962:213) identify the hawk of the SECC as the peregrine falcon (*Falco peregrines*). Significantly, the hawk depicted by La Flesche (1921:Plate 9) for the Osages is a peregrine falcon.

Brown (2011) contends that the motifs, imagery, and lexical meanings found among the Osage and cognate tribes of Dhegihan Sioux are a productive source of readings for Braden-style motifs and compositions. He argues that "with these cosmological insights taken into consideration the Braden style emerges more forcefully as bearing the imprint of Dhegiha Sioux." He is convinced that this cultural perspective speaks to a Mississippi Valley origin for the Dhegiha Sioux, although archaeological data have yet to support his contention in a conclusive way.

The Birdman, an extension of the falcon, became a dominant image in SECC art. Brown (2004:118) proclaims that:

> We could put a name and a whole ritual narrative to this figure by considering the myths and cosmological beliefs of Southern Siouan-speaking peoples, the ancestors of whom are highly likely to have lived at Cahokia and in neighboring communities of the eastern prairies. Today these peoples are collectively the Kansa, Omaha, Osage, Ponca, and the Quapaw. Among them, and most conspicuously documented among the Osage, the central figure of the falcon (generally just a hawk) is identified with the Morning Star deity.

In Southern Siouan cosmological conceptions, Morning Star represents the capacity for rebirth and the generation of human life. "This pattern is seen in the gifts of the falcon in the Osage legend of the patient warrior" (La Flesche 1939:9–11).

Alice Kehoe (2007:246–247) argues that central place analogy in archaeological interpretation (cf. Kelley and Hanen 1988:378) holds that we should examine the ethnographies of nations geographically closest to the American Bottom, agreeing with Knight et al. (2001:136) that the "principle of parsimony" justifies juxtaposing archaeological data with ethnographic

material from the same geographical region, especially if only a matter of a few centuries interpose. She believes that it is reasonable to examine the degree of congruence between nations that are closely related linguistically and culturally with regional prehistoric groups, insofar as archaeological data permit.

Utilizing Osage texts recorded by La Flesche (1921, 1925, 1928, 1930) and Fletcher and La Flesche (1911), Kehoe finds parallels between these transcriptions and several Cahokia icons. They are the Keller figurine, Ramey knives, Mound 72, and mounds and woodhenges. She calls attention to a striking congruence between the attributes incorporated into the Keller figurine and the Osage rite of *Wa-Xo'-Be* described by La Flesche (1930). Kehoe claims that congruence in so many features from Cahokia with the Osage priestly texts enhances the premise that this religious knowledge has been ritually maintained over the period of a few centuries (Kehoe 2007:260).

There are also parallels between rock art in Missouri and imagery associated with Southern Siouan groups. Most of the rock art dates from the Mississippian period, and images linked to the Braden style found on the face of Picture Cave I in Warren County, Missouri have been dated to A.D. 940 ± 80 to A.D. 1090 ± 90 radiocarbon years before present (rcybp), with a weighted mean (N=4) of 994 ± 42 rcybp (Diaz-Granádos et al. 2001:489). An image of a warrior in war regalia brandishing a mace above his head with an emblematic sash of a warrior society and a drum-shaped hat is a specific type that survived into historic times. This can be seen on Osage military headdresses from the late eighteenth to early nineteenth century (Diaz-Granádos 2004:146). Diaz-Granádos (2004:143) also calls attention to the vulvar motif, which is likely the symbolic representation of a female deity:

> The Old Woman who is revered and respected, the Siouan Old-Woman-Who-Never-Dies; she is the mother of all things in the heavens and the Middle World, also known as the Corn Mother or Earth Mother, depending on the group, location, and associated oral tradition.

Another link is the underwater spirit, a mythical animal of the Omaha Shell Society. It was lord of all animals and reincarnator of spirits according to Omaha oral tradition. Underwater spirit motifs and oral traditions were widespread among the Dhegihan-speaking groups (Diaz-Granádos et al. 2001:486–487). The author concludes that the petroglyphs and pictographs of the central Mississippi River and Missouri River valleys not only bring to light the abundance of Mississippian imagery, but serve to support links to surviving ethnographic information from Dhegihan-speaking groups who occupied the general region (Diaz-Granádos 2004:149).

In an overview of Cahokia, Timothy Pauketat (2004:154) concludes that the Cahokians were primarily Siouan-speakers given the locations of the Southern Siouans at contact and "given modern studies of Siouan languages with their complex terminology describing politics and kinship organization." Hall (2006) summarizes what he believes led to the Cahokia diaspora. Unlike some colleagues who used terms such as collapse or decline, Hall believes a better argument can be made for "relocation" instead of "decimation." He sees the Cahokia polity beginning to disperse about the same time that the eight-row or Northern flint corn began making a strong appearance in the archaeological record at Cahokia, replacing the Midwestern 12-row variety.

> Cahokia may not owe its origin to an improved variety of maize, but it could well owe its dispersion to one. Northern flint corn was more resistant to drought, dampness, and insect damage, and with its shorter growing season, was less likely to be affected by late spring and early fall frosts. It could be grown in

> many upland trans-Mississippi areas that earlier would have been precariously marginal for horticulturalists (Hall 2006:215; see also Hall 1980).

The common bean (*Phaseolus vulgaris*) also became available ca. A.D. 1300. The addition of beans to the diet would have added a protein source that would have replaced aquatic resources from the sloughs and backwaters of the American Bottom. However, protein may not have been an issue as American Bottom populations moved westward. Bison populations were beginning to become more numerous and the trans-Mississippi prairies provided prime hunting grounds. What Boszhardt (2000) termed the "bison pull" became a powerful attraction for many societies bordering the Prairie-Plains. And as Hall (2006:216) reasons, "if bison hunting was not an attraction in itself for Cahokians to move westward, then its attraction for Cahokia's western neighbors may at least have freed areas for resettlement west of the Mississippi that had not previously been available."

MISSOURI RIVER–CHARITON RIVER AREA

Several archaeologists propose that the antecedents of the Osage tribe can be found in the Oneota cultures of the Mississippi River and Missouri River valleys (Henning 1993, 1998b; O'Brien and Wood 1998:348; Vehik 1993; Yelton 1991, 1998). In fact, Henning (1998b:238) contends that during the early contact period (ca. A.D. 1700) the westernmost Oneota villages were occupied by Dhegihan-speaking tribes, i.e., the Osage, Kansa, and Omaha. But where were the late prehistoric-protohistoric villages of these people, especially in this case, the Osage?

Yelton (1991:151–153, 1998:270) has suggested an interesting hypothesis—the ancestors of the historic Osage and Kansa were the primary occupants of Oneota sites in the Chariton region of central Missouri, a proposition that Henning (1998b:243) says merits serious consideration. Although definitive evidence is still lacking on this affiliation, other researchers also concur with Yelton's assessment (e.g., O'Brien and Wood 1998:348). The traditional interpretation has been to affiliate these sites with the Missouria and their antecedents. Yelton's suggestion does not preclude the fact that the Missouria were living there, but it does raise the possibility that these Oneota site clusters (i.e., Utz [23SA2] and Guthrey [23SA131]) may have been multi-ethnic settlements, proximal villages where both Chiwere and Dhegihan speakers were living.

Yelton (1998:278) bases his argument on the native material remains that were still in use at the earliest historic Osage sites—Brown and Plattner. He points out that "Osage pottery occurred as shell-tempered jars and bowls in forms consistent with those found on western Oneota sites." Furthermore, he says that the tool-trailed sherds from Plattner are indistinguishable from those of nearby Oneota components. In all, 5,478 sherds were recovered from the Brown site, of which 1,392 were decorated with Oneota-like designs (Chapman and Wiegers 1985:298). In addition, rim sherds often had strap or loop handles reminiscent of Oneota ceramics. Complicating comparisons, however, was the size of the sherds—most were no larger than a square inch. Because of the fragmentary nature of the vessels, none of the descriptions identify the shape of the vessel bases. Yelton (1998:278) mentions that tools such as grooved mauls and bison scapula hoes, items prevalent on Oneota sites, were quickly replaced with metal tools so that they are essentially absent at Osage sites.

By the time the Osage first settled in the upper Osage River basin at the Brown site, they already had firmly established trade relations with Euro-Americans. This would place their initial settlement in this headwaters area sometime ca. A.D. 1675 (Henning and Thiessen 2004:395). But, where were the Osage prior to the late seventeenth century? Were they indeed living in villages along the Missouri River that we identify today with the Oneota tradition? Henning (1998b:243) believes that the Dhegihan speakers derived originally from the east, but were

making forays to the west prior to establishing villages in the prairies by A.D. 1500. Radiocarbon dates from the Oneota village clusters indicate that some of the sites were established as early as the thirteenth century (Yelton 1998:274). It is impossible to know at this time if these early components related to Chiwere- or Dhegihan-Siouan speakers—that is, if one accepts the concept that these were multi-ethnic village complexes. According to Rankin (1997), the Siouan Winnebago-Chiwere and Dhegiha language groups had separated prior to this time, around A.D. 600−700 (see Alex 2000:215, Figure 11.2).

Let us now return to the theory that Dhegihan-speaking tribes of the Prairie-Plains are descendents of peoples who once formed the Mississippian polity at greater Cahokia. It is important to note that during the Cahokia diaspora there appeared in the American Bottom a significant Oneota occupation (Jackson 1998), and for that matter, in adjacent regions of the Mississippi River and Illinois River valleys (Esarey and Conrad 1998; Farnsworth and O'Gorman 1998; Nolan and Conrad 1998). Brown and Kelly (2009) have recently challenged more traditional thinking with a hypothesis that suggests that instead of population replacement, there was a transformation of material culture during the fourteenth century, from Mississippian material culture to acceptance by the former of Oneota styles and technology. They refer to this process as the "Oneotization" of Mississippian culture. The process is exemplified in the Illinois River valley at sites such as Crable and Norris Farms where Mississippian and Bold Counselor Oneota ceramics are contemporaneous and found together in all features at these sites (Conrad 1991:149−154; Esarey and Conrad 1998). If this evolutionary pathway—Oneotization—has merit, then it could account for the elaborate political and ritual leadership hierarchy and many legends of the Dhegiha Sioux (Osage and Omaha) that mirror those of the Cahokians or other Mississippians at the time of Cahokia's efflorescence (Pauketat and Emerson 1997:25−26).

What then was the stimulus for the westward movement of Oneota populations from the Mississippi valley? Henning (1998b:239) offers some factors that we believe have merit. They are: (1) the more readily available herds of bison as groups moved westward, (2) vacant areas resulting from the departure of prior residents, (3) the development of relationships with nearby western tribes, and (4) enhanced trade opportunities. We also would add Hall's (2006:216) observation that northern flint corn was much more adaptable to different environmental settings, meaning that populations were no longer tethered to the floodplains of the large river valleys. Finally, Henning (1998b:239) identifies the declining social conditions in the Mississippi Valley, with pandemic disease and the hostile advances of northeastern tribes as factors after the sixteenth century.

SUMMARY

The various theories outlined above that address the origin of Osage culture can best be framed as hypotheses, proposals that need to be tested against archaeological data. We believe some of these ideas have more merit than others. For example, the preponderance of evidence argues against an indigenous *in situ* development for Osage culture. A migration of Osage peoples into the Osage River basin during the Protohistoric period is a more parsimonious explanation. This is based on the fact that all Osage sites contain Euro-American trade goods. The ceramic evidence indicates that the Osage, as well as their cognate Dhegihan-speaking tribes, shared a heritage that can be linked to the Oneota tradition.

The paramount question is from where did the Oneota ancestors originate? The geographic distribution of societies participating in the Oneota tradition was essentially coterminous with the Prairie Peninsula. The tradition first emerged in the Great Lakes area but began spreading through the Prairie Peninsula during what has been termed its Development Horizon dating to A.D.

1000−1350 (Henning 1998a:353). If Rankin (1997) is correct, then the Dhegiha Sioux should have been a recognized linguistic group by this time. The Ohio Valley, American Bottom region, and Chariton River locale are all places of potential origin that offer intriguing possibilities and are not necessarily mutually exclusive, but they lack definitive supporting archaeological evidence. In his dissertation on Oneota ceramics, Yelton (1991:99) analyzed Osage pottery from the Brown site and concluded that the assemblage was similar to that of Utz. His goal was to identify and explain morphological variation, and there is still not a detailed stylistic analysis of Osage ceramics that would permit identifying Osage ceramics on Oneota sites in the Chariton River area. In other words, until there is a means to fingerprint Osage native material culture on late prehistoric Oneota sites along the Missouri River, Yelton's suggestion of multi-ethnic villages is hypothetical at best.

Mississippian iconography and the parallels that have been drawn with Osage and Omaha religious symbolism are convincing within certain realms. The religious texts of Dhegiha tribes transcribed by La Flesche have armed modern archaeologists with a wealth of materials for interpreting ancient cosmology. The problem, however, is that this cosmology and associated iconography may be widespread among Siouan groups with the closest associations drawn with the tribes whose oral traditions and rites were recorded by ethnographers, such as the Osage and the Omaha. This is demonstrated by Radin (1948), who recorded similar forms of symbolism among the Winnebago. While the study of Mississippian iconography may be a productive and certainly provocative line of inquiry, tying the Mississippian and later Oneota communities of the American Bottom to the historic Osage is still in the speculative stage and a theory that many archaeologists have yet to accept.

As a final and very important note, we subscribe to the theory that the Osage were recent immigrants into the Prairie-Plains of western Missouri, bearing a native culture that was affiliated with the Oneota tradition. Given that they arrived in the Osage River basin during the Protohistoric period, it is unlikely that they are related to the local prehistoric Caddoan, Woodland, and Archaic cultures of the region; thus, they are not related to or affiliated with the prehistoric cultures of the Stockton, Pomme de Terre, or Truman Reservoir areas.

7. KANSA ORIGINS

by

R. Bruce McMillan

The Kansa are Dhegihan speakers who are closely related to the Osage. They share the same tradition as other Dhegiha-Siouan groups, placing their origin somewhere in the Ohio River valley (Dorsey 1886:211–213; La Flesche 1921:459; McGee 1897:191). The Kansa and Osage are believed to have separated only after they had split off from other Dhegiha peoples. The Kansa consider themselves to be most closely related to the Osage, stating that differences between the Kansa and Osage languages were no greater than the dialect differences among Osage bands (Bailey and Young 2001:462). Parks and Rankin (2001:94), when speaking of the twelve Siouan family languages on the Plains, consider Osage-Kansa as a single language.

The reason for addressing Kansa origins is that their villages at the turn of the eighteenth century were only a few miles northwest of the modern Smithville Reservoir. Henning (1998a:391) identified the King Hill site in St. Joseph and the Fanning site just three miles west across the Missouri River in Kansas as Kansa sites occupied prior to A.D. 1714. Also, the Doniphan site, 15 miles southwest of the King Hill site, is believed to be the village visited by Bourgmont in 1724 (Marshall 2006:221; Wedel 1959:101). Stephen H. Long described the Doniphan site as an "old Kansa town" in the journal of his expedition to the Rocky Mountains in 1819–1820 (James 1823:105). Ceramics from the King Hill and Fanning sites are clearly Oneota, with both plain and decorated jar forms decorated with trailed or incised lines (Henning 1998a:391).

Alfred Johnson (1991) has advanced an alternative interpretation. He suggested that the Oneota sites mentioned above are Otoe villages, not Kansa as others have proposed. He bases this on the 1718 Delisle map that places the Otoe below the mouth of the Platte on the west side of the Missouri River (Tucker 1942:Plate 15). Johnson goes on to say that if one accepts that these sites are affiliated with the Otoe, then one must seek alternative sources other than Oneota for the antecedents of the Kansa. He traces Kansa ancestry from Late Woodland (ca. A.D. 750) through Pomona (A.D. 950–1610), an early Plains Village variant situated in eastern Kansas and extending into western Missouri (Brown 1985; Witty 1967). Johnson's hypothesis is not only contradictory to the oral traditions of the Kansa, but has gained little acceptance among archaeologists. Most agree with Henning (1993:257–258) that the protohistoric Kansa were participants in the Oneota tradition, a cultural expression that was widespread in the Prairie Peninsula by the seventeenth century. Bushnell (1922:89), Parks and Rankin (2001), and Unrau (1971:1–16) all argue for a cultural closeness between the Kansa and the Osage, both linguistically and culturally. This suggests not only a recent separation, but also a common ancestor. If one accepts the premise that the Kansa and Osage derive from a common ancestor, then the hypotheses advanced for Osage origins would apply to the Kansa.

It is prudent to point out that some items of Mississippian iconography were incorporated into the Kansa cultural inventory. Kansa war bundles sometimes included marine shell masks—"sea shell gorgets" as described by Skinner (1915:748). A drawing of one originally illustrated by Dorsey (1885b:673) was later reproduced by Howard (1956:302, Figure 97). Notably, in a ceremony to assemble a war party, Dorsey (1885b:673) recorded that a Kansa war captain, Paha^{n}le-gaqli, remarked that the clamshell had been brought by the ancestors of the Kansa from

the "great water at the east." Just as with the Osage, the hawk was symbolically important to the Kansa. Skinner (1915:748) collected a Kansa war bundle that contained a mummified hawk as its principal medicine object. A braided yarn cord was fastened to the hawk's neck for suspension and scalplocks were attached to its tail. The hawk was then worn as a badge around the neck of the leader of the war party. Skinner remarks that Kansa and Osage bundles are remarkably similar in every detail.

Interestingly, Henning (1993:258) draws attention to the fact that of the inventory of Oneota cultural material on the putative Kansa sites at King Hill and Fanning, there is not a single item that could not be lost in an Utz site collection. He contends, however, that the King Hill and Fanning collections as a whole appear different from assemblages from other Oneota sites. So, does this give credence to or refute Yelton's (1991, 1998) hypothesis that Utz was a multi-ethnic village cluster, cohabited by both Chiwere and Dhegihan speakers? Only further research will tell.

The similarity of components of Kansa symbolism and iconography with ritualistic art forms and practices among Mississippian people of the American Bottom is evident, but the definitive proof is still lacking to state positively that the central Mississippi River valley is the ancestral home of the Dhegiha-Siouan speaking tribes. A more detailed review of this proposition was given for the Osage. Although there are some tantalizing linkages between Dhegihan speakers and the deeper past, for now we agree with Henning and Thiessen (2004:394) that it is premature to cite any archaeologically defined cultural manifestation as ancestral to the tribal entities first described in the historic record.

8. FEDERALLY RECOGNIZED TRIBES AND HISTORIC LAND CESSIONS

by

Neal H. Lopinot and Jack H. Ray

CONSULTING FEDERALLY RECOGNIZED TRIBES

The USACE Kansas City District presently consults with the following tribal groups (as listed in the tribal directory by the National Congress of American Indians [2010]).

Absentee-Shawnee of Indians of Oklahoma
Cherokee Nation of Oklahoma
Delaware Nation, Oklahoma (formerly Delaware Tribe of western Oklahoma)
Delaware Tribe of Indians, Oklahoma
Eastern Shawnee Tribe of Oklahoma
Iowa Tribe of Kansas and Nebraska
Kaw Nation, Oklahoma
Kickapoo Tribe of Indians in Kansas
Omaha Tribe of Nebraska
Osage Tribe, Oklahoma
Otoe-Missouria Tribe of Indians, Oklahoma
Ponca Tribe of Oklahoma
Prairie Band of Potawatomi Nation, Kansas (formerly the Prairie Band of Potawatomi Indians)
Sac & Fox Nation of Missouri in Kansas and Nebraska
Sac & Fox Tribe of the Mississippi in Iowa
Shawnee Tribe, Oklahoma
United Keetoowah Band of Cherokee Indians in Oklahoma (previously listed as the United Keetowah Band of Cherokee Indians of Oklahoma)
Winnebago Tribe of Nebraska
Wyandotte Nation, Oklahoma

None of these tribes currently resides in Missouri, having left voluntarily or forcibly in the early nineteenth century. However, the state of Missouri is listed as the contact point for one federally recognized tribe—the Eastern Shawnee Tribe of Oklahoma: Chief Glenna Wallace. All of the others have reservations and/or places of residence/contact in the adjacent states of Iowa (N=1), Kansas (N=4), Nebraska (N=4), and Oklahoma (N=12). Despite this fact, there are many people living in western Missouri who claim at least some Native American heritage, such as a group known as the Northern Cherokee Nation of Missouri and Arkansas, based out of Clinton, Missouri near Truman Reservoir.

LAND CESSIONS IN MISSOURI

The concept of legalized land claims is an Old World one. It was a concept foreign to Native Americans when de Soto and others first explored portions of the Mississippi Valley during protohistoric and early historic times. When La Salle claimed the Louisiana Territory for France in 1673, such was irrelevant to Native Americans who lived and had lived throughout the area for generations upon generations. For more than a century thereafter, Native Americans living in Missouri came into increasing contact with Europeans and other tribes that were being displaced

from east of the Mississippi River for a variety of reasons. Despite increasing difficulties and friction between various groups, Native Americans continued to have a widespread presence in Missouri until the Louisiana Purchase in 1803 and rule by the United States.

A total of 17 land cessions or treaties were signed for lands in Missouri between 1804 and 1837 (Royce 1899). These involved 11 different tribes consisting of the Sauk, Fox, Osage, Kickapoo, Iowa, Kansas, Shawnee, Omaha, Otoe, Missouria, and Delaware (Table 4). Of those groups who lived in Missouri for more than a brief time, the Sauk and/or Fox signed seven, the Osage signed two, and the Kansa signed one. By the early nineteenth century, the Missouria had long perished as an independent tribal entity, having been incorporated mostly among the Otoe. The U.S. government signed a treaty in 1830 principally with the Sauk and Fox, along with the Omaha, Iowa, and Otoe.

The earliest of these treaties was signed by the Sauk and the Fox, who ceded a considerable amount of land in northeast Missouri to the north of the Missouri River and west of the Mississippi River (Figure 10), as well as lands in adjacent states. Nearly all of Missouri, both north and south of the Missouri River were ceded to the U.S. government in a removal treaty signed by the Great and Little Osage on November 10, 1808. Thus, the Osage relinquished claims to the Pomme de Terre, Stockton, Truman, and Smithville areas on that date, although they retained a strip of land along the western border of Missouri until signing another removal treaty on June 2, 1825. The Sauk, Fox, and Iowa later also relinquished their claims to most of the lands north of the Missouri River, including the Smithville area, on August 4, 1824. Ironically, some of the Indian land cessions, but particularly the 1808 treaty with the Osage, were obtained to make room for other groups being displaced from further east (i.e., the Delaware, Kickapoo, and Shawnee). Ultimately, these groups also were removed or left as a consequence of signing additional treaties.

After Missouri became a state in 1821, the legislature began passing a series of laws to prevent Native Americans from entering or hunting in the state. In fact, the noose became so tight that it would have been difficult for any Native American to enter Missouri and claims of Native American heritage could have been cause for persecution. A statute passed on February 27, 1845, for example, contained the following (Bunch 2010):

1. No person shall reside, or attempt to reside, as a trader, in any hunting camp of any Indian tribe not permanently settled within this state.
2. No person shall give to any Indian a permit to come or remain within this state; nor a permit, or other instrument of writing, with the intent to induce any Indian to come or remain within this state, except the proper agent, under the authority of the United States.
3. No person shall sell, exchange, or give to any Indian any spirituous or vinous liquor, under any circumstances whatever, unless directed by a physician, for medical purposes.
4. No person shall sell, exchange, or give to any Indian, any horse, mule, gun, blanket or any other article or commodity whatever, unless such Indian shall be traveling through the state, and have a written permit from the proper agent, or under the direction of such agent in proper person.
5. No person shall receive from any Indian, by way of purchase, gift, exchange or barter, any horse, mule, gun, blanket, fur, peltry or any other article or commodity whatever.
6. Any person convicted of a violation of the first section of this act shall forfeit the merchandize found in his possession, and offered for sale to the Indians, and shall be

Table 4. Historic Land Cessions Relevant for Missouri.

Year	Day	Tribe(s)	Description	Royce No.
1804	Nov 3	Sauk and Fox	Article 2 provides that the general boundary between the U.S. and the Sacs and Foxes shall be as follows: Beginning at a point on the Missouri river opposite to the mouth of Gasconade river; thence in a direct course so as to strike the river Jeffreon [North River] at the distance of 30 miles from its mouth, and down the said Jeffreon to the Mississippi; thence up the Mississippi to the mouth of the Ouisconsing [Wisconsin] river, and up the same to a point which shall be 36 miles in a direct line from the mouth of said river; thence by a direct line to the point where the Fox river (a branch of the Illinois) leaves the small lake called Sakaegan; thence down the Fox river to the Illinois river, and down the same to the Mississippi. And the said tribes relinquish to the U.S. all claims to lands within said boundaries. By article 11 the Sacs and Foxes cede to the U.S. a tract of land 2 miles square for the establishment of a military reservation either on the upper side of the Ouisconsing or on the right bank of the Mississippi.	50
1808	Nov 10	Great and Little Osage	It is agreed between the U.S. and the Great and Little Osage nations that the boundary line between their respective possessions shall begin at Fort Clark, on the Missouri, 5 miles above Fire Prairie, and running thence a due S. course to the Arkansas and down the same to the Mississippi, hereby ceding to the U.S. all lands lying E. of said line and N. of the southwardly bank of the river Arkansas. The Osages also cede to the U.S. a tract 2 leagues square, to embrace Fort Clark and to be laid off in such manner as the President of the U.S. shall think proper. The Osages also cede all claim to lands situated northwardly of the river Missouri.	67, 68, 69
1815	Sept 13	Sauk (that portion residing on Missouri River)	That portion of the Sac nation residing on the Missouri river assent to the treaty between the U.S. and the united tribes of Sacs and Foxes concluded at St. Louis, Nov. 3, 1804.	50, 51
1815	Sept 14	Fox	The Fox tribe or nation, assent to and confirm the treaty between the U.S. and the united tribes of Sacs and Foxes concluded at St. Louis, Nov. 3, 1804	50, 51

Table 4 (continued).

Year	Day	Tribe(s)	Description	Royce No.
1816	May 13	Sauk of Rock river and adjacent country	The Sacs of Rock river and the adjacent country unconditionally assent to and confirm the treaty between the U.S. and the united tribes of Sacs and Foxes concluded Nov. 3, 1804. In consideration of the foregoing concessions the U.S. agrees to cede to the Kickapoos and their heirs forever a certain tract of land lying in the Territory of Missouri and included within the following boundaries, viz: Beginning at the confluence of the rivers Pommes de Terre and Osage; thence up said river Pommes de Terre to the dividing ridge which separates the waters of Osage and White rivers; thence with said ridge and westwardly to the Osage line; thence due N. with said line to Nerve creek; thence down the same to a point due S. of the mouth of White Clay or Richard creek; thence N. to the Osage river; thence down said river to the beginning; Provided, that said tribe shall never sell said land without the consent of the President of the U.S.	50, 51
1820	July 19	Kickapoo	It is agreed between the U.S. and the Kickapoos that the sixth article of the treaty of July 30, 1819, to which this is supplementary, shall be altered and amended so as to read as follows: "In consideration of and exchange for the cession made by the aforesaid tribe, in the first article of this treaty, the U.S. in addition to $3,000 worth of merchandise, this day paid to the said tribe, hereby cede to the said tribe, to be by them possessed in like manner as the lands ceded by the first article of this treaty by them to the U.S. were possessed, a certain tract of land in the territory of Missouri, and included within the following boundaries, viz: Beginning at the confluence of the rivers Pommes de Terre and Osage; thence up said river Pommes de Terre to the dividing ridge, which separates the waters of Osage and White rivers; thence with said ridge and westwardly to the Osage line; thence due N. with said line to Nerve creek; thence down the same to a point due S. of the mouth of White Clay or Richard creek; thence N. to the Osage river; thence down said river to the beginning.	170
1824	Aug 4	Sauk and Fox	The Sock and Fox tribes or nations cede and quitclaim to the U.S. all right to lands within the State of Missouri situated between the Mississippi and Missouri rivers and a line running from the Missouri at the mouth of the Kansas river, N. 100 miles to the NW. corner of the State of Missouri, and from thence E. to the Mississippi.	69

Table 4 (continued).

Year	Day	Tribe(s)	Description	Royce No.
			It is understood, however, that the small tract of land lying between the rivers Desmoin and the Mississippi, and the section of the above line between the Mississippi and the Desmoin, is intended for the use of the half-breeds belonging to the Sock and Fox nations, they holding it, however, by the same title and in the same manner that other Indian titles are held.	
1824	Aug 4	Iowa	The Ioway tribe or nation cede and quitclaim to the U.S. all right to lands within the State of Missouri and situated between the Mississippi and Missouri rivers and a line running from the Missouri, at the mouth or entrance of Kanzas river, N. 100 miles, to the NW. corner of the State of Missouri, and from thence E. to the Mississippi; and said tribe do acknowledge that the lands E. and S. of the above-described lines (which have been run and marked by Colonel Sulliven), so far as the Indians claimed the same, belong to the U.S., and that none of said tribe shall be permitted to settle or hunt upon any part of it after Jan. 1, 1826, without permission.	69
1825	June 2	Great and Little Osage	The Great and Little Osage tribes or nations cede to the U.S. all claim to lands lying within the State of Missouri and the Territory of Arkansas. The Osages also cede all claim to lands lying W. of the State of Missouri and Territory of Arkansas, N. and W. of the Red river, S. of the Kansas river, and E. of a line to be drawn from the head sources of the Kansas southwardly through the Rock Saline, with such reservations as are hereinafter specified. Within the limits of the foregoing cession there is reserved for the Osages, so long as they choose to occupy the same, the following described tract of land: Beginning at a point due E. of White Hair's village and 25 miles W. of the western boundary line of the State of Missouri, fronting on a N. and S. line so as to leave 10 miles N. and 40 miles S. of the point of said beginning, and extending W. with the width of 50 miles to the western boundary of the lands hereby ceded and relinquished.	123
1825	June 3	Kansas	The Kanzas nation cede to the U.S. all lands lying within the State of Missouri to which said nation has title or claim.	124

Table 4 (continued).

Year	Day	Tribe(s)	Description	Royce No.
			The Kanzas nation also cede to the U.S. all other lands claimed by them lying W. of the State of Missouri and within the following boundaries: Beginning at the entrance of the Kanzas river into the Missouri; thence N. to the NW. corner of the State of Missouri; thence westwardly to the Nodewa river, 30 miles from its entrance into the Missouri; thence to the entrance of the Big Nemahaw river into the Missouri, and with that river to its source; thence to the source of the Kansas river, leaving the old village of the Pania Republic to the W.; thence on the ridge dividing the waters of the Kanzas river from those of the Arkansas to the western boundary of the State line of Missouri, and with that line 30 miles to the place of beginning. From the foregoing cession the Kanzas nation reserve the following tract; Beginning 20 leagues up the Kanzas river and to include their village on that river; extending W. 30 miles in width through the lands ceded in the first article.	
1825	Nov 7	Shawnee nation residing in Missouri	The Shawnee tribe cede to the U.S. all claim to the lands on which they settled near Cape Geredeau under an authority of the Spanish Government, situate, lying, and being between the river St. Come and Cape Geredeau and bounded on the E. by the Mississippi and westwardly by the White Water. In consideration of the foregoing cession the U.S. agree to give to the Shawanee tribe within the State of Missouri, for themselves and such of the same nation as may emigrate from Ohio, a tract of land equal to 50 miles square, situated W. of the State of Missouri and within the purchase made from the Osages by treaty of June 2, 1825, bounded as follows: Commencing at a point 2 miles NW. of the SW. corner of Missouri; then N. 25 miles; thence W. 100 miles; thence S. 25 miles; thence E. 100 miles to the place of beginning.	125, 126
1829	Sept 24	Delaware [supplemental to treaty of Oct. 3, 1818]	Whereas the treaty of Oct. 3, 1818 stipulates that the U.S. shall provide a home for the Delaware nation west of the Mississippi river, and whereas the Delawares are willing to remove from the country on James's fork of White river, in Missouri, to the country selected in the fork of Kansas and Missouri rivers, as recommended by the U.S. for the permanent residence of the whole Delaware nation, it is agreed that the country in the fork of the Kansas and Missouri rivers, extending up the Kansas river to the Kansas line and up the Missouri river to Camp Leaven-worth and thence by a line drawn westwardly, leaving a space 10 miles wide N. of the Kansas boundary line for an outlet, shall be conveyed and forever secured by the U.S. to said Delaware nation as their permanent residence.	125, 150a

Table 4 (continued).

Year	Day	Tribe(s)	Description	Royce No.
			The Delawares cede to the U.S. all claim to land in Missouri, comprised in two tracts, viz: 1. The tract known as the Cape Girardeau tract, which was granted to the Delawares and Shawnees jointly by Baron de Carondolet on behalf of the Spanish government, Jan. 4, 1793. 2. The tract in SW. Missouri selected for them under the provisions of the treaty of Oct. 3, 1818, and lying along the James fork of White river.	
1830	July 15	Sauk and Fox, Medewakanton, Wahpeknta, Wahpeton and Sisseton bands of Sioux, Omaha, Iowa, Oto, and Missouri	Said tribes cede to the U.S. all claims to the following described territory: Beginning at the upper fork of the Demoine river and passing the sources of the Little Sioux and Floyds rivers to the fork of the first creek which falls into the Big Sioux or Calumet on the E. side; thence down said creek and Calumet river to the Missouri river; thence down said Missouri river to the Missouri state line above the Kansas; thence along said line to the NW. corner of the said state; thence to the highlands between the waters falling into the Missouri and Desmoines, passing to said highlands along the dividing ridge between the forks of the Grand river; thence along said highlands or ridge separating the waters of the Missouri from those of the Demoine to a point opposite the source of Boyer river; and thence in a direct line to the upper fork of the Demoine, the place of beginning. But it is understood that the lands ceded and relinquished by this treaty are to be assigned and allotted under the direction of the President of the U.S. to the tribes now living thereon or to such other tribes as the President may locate thereon for hunting and other purposes. The Sacs and Foxes cede to the U.S. a tract of country 20 miles in width from the Mississippi to the Demoine, situate S. and adjoining the line between the said Sacs and Foxes and the Sioux, as established by article 2 or the treaty of Aug. 19, 1825 The Medawah-kanton, Wah-pa-coota, Wahpeton and Sisseton bands of Sioux cede to the U.S. a tract of country 20 miles in width from the Mississippi to the Demoine river, situate N. and adjoining the line established by article 2, treaty of Aug. 19, 1825.	151

Table 4 (continued).

Year	Day	Tribe(s)	Description	Royce No.
			The U.S. agree to reserve for the occupancy of the Sioux half-breeds the following tract of country: Beginning at a place called the Barn, below and near the village of the Red Wing chief, and running back 15 miles; thence in a parallel line with Lake Pepin and the Mississippi about 32 miles to a point opposite Beef or O-Boeuf river; thence 15 miles to the Grand Encampment, opposite the river aforesaid. The U.S. agree to reserve for the occupancy of the Omaha, Ioway, Ottoe, Yanekton, and Santie Sioux half-breeds the tract of country within the following limits: Beginning at the mouth of the Little Ne-mo-haw river and running up the main channel of said river to point which will be 10 miles from its mouth in a direct line; from thence in a direct line to strike the Grand Ne-mo-haw 10 miles above its mouth in a direct line (the distance between the two Ne-mo-haws being about 20 miles); thence down said river to its mouth; thence up and with the meanders of the Missouri river to the point of beginning.	
1832	Oct 24	Kickapoo	The Kickapoo tribe cede to the U.S. the lands assigned to them by the treaty of Edwardsville, July 30, 1819, and supplementary treaty of St. Louis, July 19, 1820. The U.S. agree to provide for the Kickapoo tribe a country to reside in SW. of the Missouri river, as their permanent home as long as they remain a tribe. And whereas the said Kickapoo tribe are now willing to remove from the country ceded on Osage river, in the state of Missouri, to the country selected on the Missouri river N. of the lands assigned to the Delawares, it is agreed that the country within the following boundaries shall be assigned and conveyed to the said Kickapoo tribe as their permanent residence, viz: Beginning on the Delaware line 6 miles westwardly of Fort Leavenworth; thence with the Delaware line westwardly 60 miles; thence N. 20 miles; thence in a direct line to the W. bank of the Missouri at a point 26 miles N. of Fort Leavenworth; thence down the W. bank of the Missouri river to a point 6 miles nearly NW. of Fort Leavenworth, and thence to the beginning.	179
1832	Oct 26	Shawnee and Delaware late of Cape Girardeau	The Delawares and Shawanoes, late of Cape Girardeau, cede and relinquish to the U.S. all their lands in the state of Missouri, as well as all claims against the U.S. for loss of property and improvements.	125,126 ,150a
1837	Oct 21	Sauk and Fox of Missouri	The Missouri Sac and Fox Indians make the following cessions to the U.S., viz:	151

Table 4 (continued).

Year	Day	Tribe(s)	Description	Royce No.
			1. Of all right or interest in the country between the Missouri and Mississippi rivers and the boundary line between the Sac and Fox and the Sioux Indians, described in the second article of the treaty of Aug. 19, 1825, to the full extent to which said claim was recognized in the third article of said treaty, and of all interest or claim by virtue of the provisions of any treaties since made by the U.S. with the Sacs and Foxes. 2. Of all right to locate for hunting or other purposes on the land ceded in the first article of the treaty of July 15, 1830, which, by the authority therein conferred on the President of the U.S. they may be permitted by him to enjoy. 3. Of all claims or interest under the treaties of Nov. 3, 1804, Aug. 4, 1824, July 15, 1830, and Sept. 17, 1836, for the satisfaction of which no appropriations have been made.	
1837	Nov 23	Iowa	The Ioway Indians cede to the U.S. all right and interest in the land ceded by the treaty concluded with them and other tribes on July 15, 1830, which they might be entitled to claim by virtue of the phraseology employed in the second article of said treaty.	

fined not less than one hundred dollars, or be imprisoned in the county jail not less than thirty days.

7. Any person convicted of a violation of the second, third, fourth or fifth sections of this act, shall be fined not less than one hundred dollars, or be imprisoned in the county jail not less than thirty days.
8. If any Indian, who shall have received a permit to come or remain within this state, in violation of this act, or who may have been furnished with spirituous or vinous liquor, by any person, in violation of this act, shall, whilst thus unlawfully within this state, or in a state of intoxication, commit any injury of damage to the person or property of any inhabitant of this state, the person giving such unlawful permit, or who shall have unlawfully furnished such Indian with spirituous or vinous liquor, shall be liable for all injury and damage thus done, to be recovered by suit in any court of competent jurisdiction.
9. All contracts made in violation of this act shall be void, and any Indian may recover from any person, any peltry or other property, sold or exchanged by him in violation of this act, or the full value thereof; or the proper agent of the tribe to which such Indian belongs, may sue for and recover such property, or the full value thereof, in his own name, to the use of such Indian.
10. If any Indian shall be found hunting or roaming within the limits of this state, without a written permit from the proper agent, such an Indian shall, on conviction, be fined ten dollars, or imprisoned in the county jail ten days.

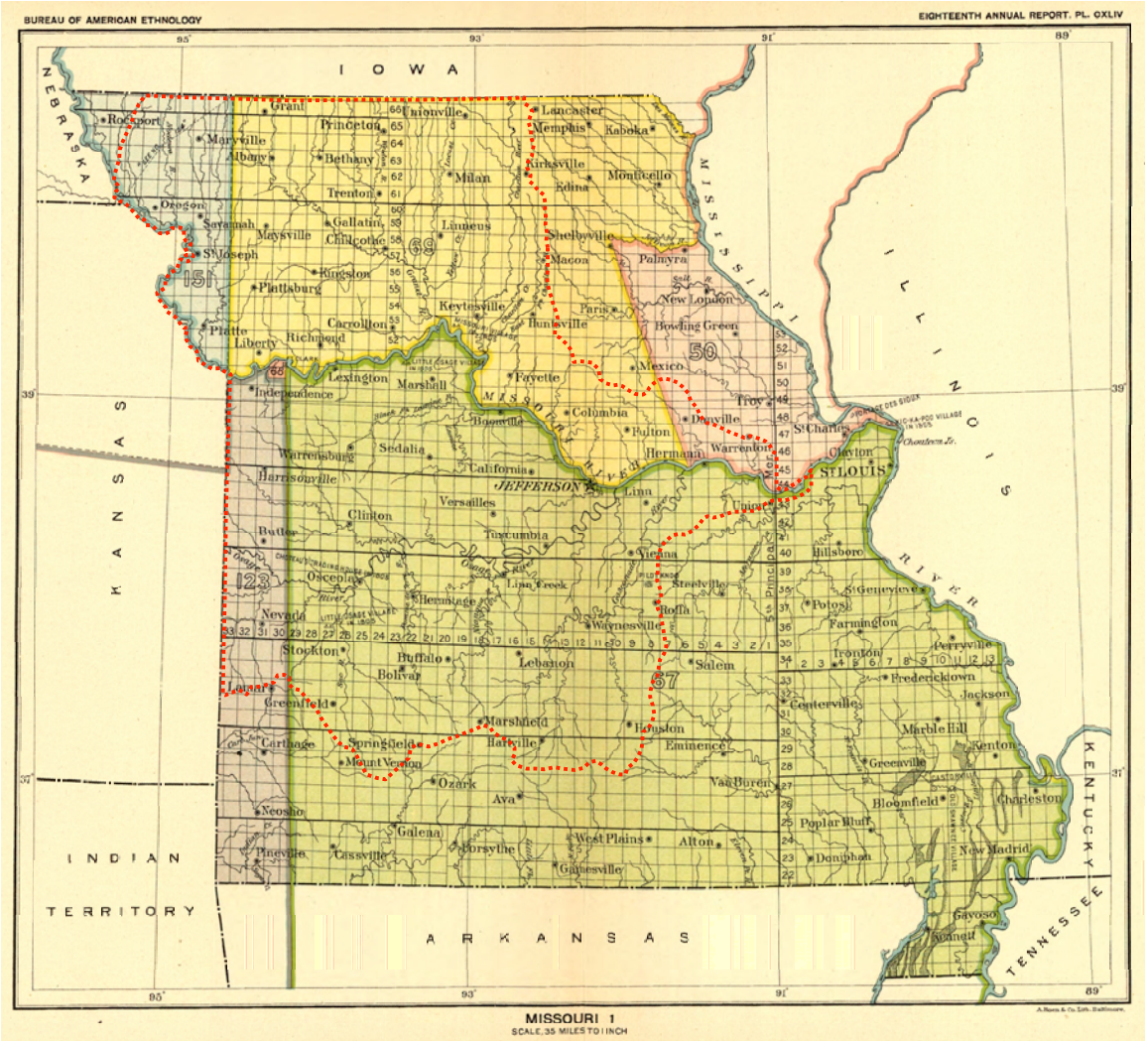

Figure 10. Map I of land cessions for Missouri (cross-referenced to Royce [1899] Nos. in Table 3; red-dotted line depicts boundary of Kansas City District in Missouri).

11. It shall be the duty of the Governor to transmit a copy of this act to the agents of all the Indian tribes on the border of this state, with a request to such agents not to grant a permit to any Indian to come into this state for the purpose of hunting or without necessary business, or who is not of a peaceful character.
12. It shall be the duty of all the civil and military officers of this state, to give immediate information of every violation of this law that may come to their knowledge.
13. The judges of the Circuit Courts shall give this act in special charge to the Grand Jury, in every county on the frontier of this State, at each term of the court.
14. Whenever any general or field officer of the militia shall receive satisfactory information, that any Indians are hunting or roaming within the limits of such officer's command, he may order out a sufficient portion of his command to remove such Indians out of the white settlement.

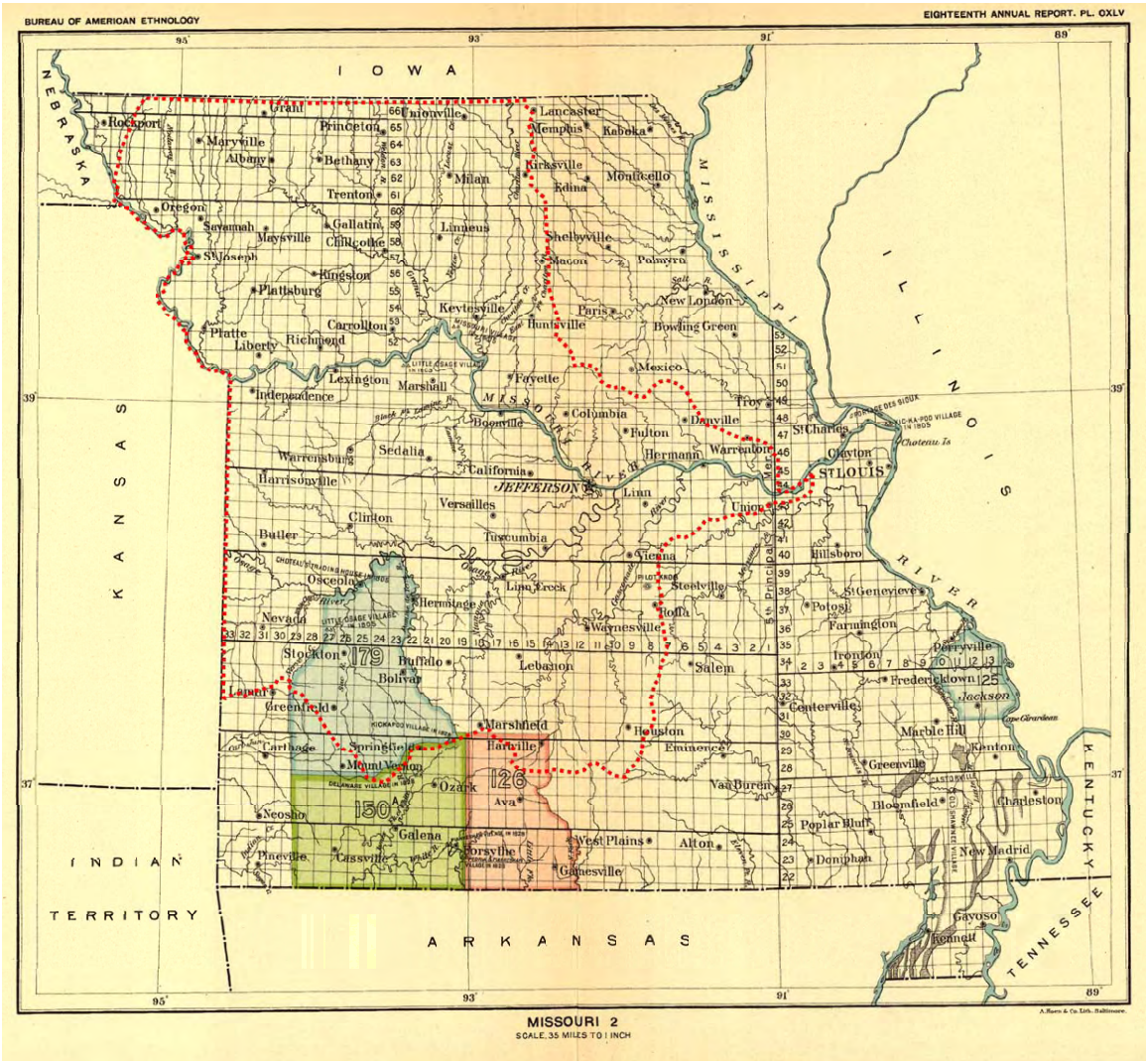

Figure 11. Map II of land cessions for Missouri (cross-referenced to Royce [1899] Nos. in Table 3; red-dotted line depicts boundary of Kansas City District in Missouri).

15. When any portion of the militia shall be so ordered into service, it shall be placed under the command of some competent commissioned officer, who shall have power, and it shall be his duty, to remove such Indians according to the order, without delay.

This statute and others were eventually repealed in 1909. However, they account for the fact that many Native Americans residing in Missouri after ca. 1825–1830 literally went underground, denying their heritage and adopting European names if they previously had none.

9. CONCLUDING SUMMARY

by

Neal H. Lopinot, Jack H. Ray, and Dustin A. Thompson

A large number of human remains and associated or possible associated funerary objects have been recovered as the result of archaeological excavations undertaken in association with the development of the Pomme de Terre, Smithville, Stockton, and Truman reservoirs (Appendices A-D). These human remains and objects have been considered part of the USACE Kansas City District collections and are curated at four institutions. Relevant collections from Pomme de Terre and Stockton are curated at the University of Missouri in Columbia (UMC), whereas those from Smithville are curated at Kansas State University (KSU) in Manhattan. Relevant collections from the Truman Reservoir are curated at three facilities, although the majority of human remains and objects are also curated at UMC. The other two institutions with relevant collections (i.e., from human burial sites) pertaining to the Truman Reservoir area are the Illinois State Museum (ISM) and the University of Tennessee in Knoxville.

THE COLLECTIONS

A considerable abundance of burials and objects are represented in the collections from the four reservoir areas. In particular, this is due to programs of excavation at Stockton and Truman reservoirs that placed considerable emphasis on the excavation of burial mounds and cairns. Before describing the general contents of the collections, it is important to define four basic terms used to classify objects. The inclusion of objects in a particular category is sometimes unavoidably subjective. This is not only due to the variable nature of the excavations and records, but also to the potential origins of the fills used to construct such mortuary facilities, to common reuse of the facilities by later residents living in the vicinity or traveling through the area, and especially to postdepositional bioturbation. Given that some burial sites or locations occur within or near campsites or villages, whether occupied previously or at the time of interment, burial and mound fills in Missouri and elsewhere often inadvertently contain artifacts similar to those found in refuse generated as the result of everyday activities.

Section 10.2 of the Native American Graves Protection and Repatriation Act (NAGPRA) provides definitions for the four terms used to classify funerary objects. According to Section 10.2, funerary objects were "part of the death rite or ceremony of a culture" and were "placed intentionally at the time of death or later with or near individual human remains." The term object is a broad one and includes not only artifacts, but also a variety of items including soil or pollen samples collected within close proximity of human remains.

Objects considered directly related to a specific burial event are defined as *associated funerary objects.* According to Section 10.2 of NAGPRA, these are objects "that were made exclusively for burial purposes" and that are also curated at the same location as "the human remains with which they were placed intentionally." The term *possible associated funerary objects* is used to refer to items and samples having more questionable association with human remains and are also curated at the same location. The two other categories, *unassociated funerary objects* and *possible unassociated funerary objects*, refer to "objects for which the human remains with which they were placed intentionally [or of questionable intent] are not in the possession or control of a museum or Federal agency." Thus, the distinction between the two

pairs of terms pertains to the location of possession of the human remains versus the funerary objects.

The inventory of collections at the UMC, KSU, and ISU facilities resulted in the identification of the remains of a minimum of 595 individuals from 104 burial sites. Detailed information resulting from the inventory of sites, human remains, and objects has been compiled by the USACE's Mandatory Center of Expertise for the Curation and Management of Archaeological Collections (MCX-CMAC 2007). One should refer to that volume for detailed information such as the age and sex of individuals (if ascertainable), the condition and kinds of remains, etc. A summary of the data is presented in Appendices A-D. The following discussion further summarizes the contents of the collections pertaining to each of the four reservoirs.

For Pomme de Terre, the collections at UMC contain the remains of a minimum of 30 individuals from 9 burial sites, as well as 1,543 possible associate funerary objects and 50 possible unassociated funerary objects. Seven of the nine burial sites were investigated in 1957, whereas Button Cairn was investigated in 1958 and Lytle Cairn was investigated in 1961 (Bray 1963a, 1963b; Wood 1961, 1967). The Smithville collections at KSU include the remains of a minimum of 25 individuals from a single burial site, the Chester Reeves Mound (23CL108) (O'Brien 1977), in addition to 1 associated funerary object and 251 possible funerary objects. The mound was investigated during the period of 1975–1977 and most of the human remains were reinterred at Smithville Lake during the 1980s. Those that remain were inadvertently omitted during the analysis and reinterment process. It is also notable that all of the possible associated funerary objects consist of historic artifacts from the surface or near the surface of the mound.

For Stockton, the remains of a minimum of 331 individuals were recovered from 50 burial sites. These excavated burial sites consisted primarily of earthen mounds, rock (mostly) cairns, and a few sheltered sites. The analyzed collections at UMC contain 1,110 associated funerary objects, 10,683 possible associated funerary objects, four unassociated funerary objects, and 181 possible unassociated funerary objects. One burial site was explored in 1957–1958, but nearly all other excavations of burial sites were undertaken during the period of ca. 1961–1965 (Bradham 1963; Chapman and Pangborn 1962; McMillan 1966, 1968; Pangborn 1965a, 1966; Wood 1965a, 1965b, 1966) and prior to the inundation of Stockton Reservoir. In fact, most of the mound or cairn sites were examined between 1963 and 1965. Eroding remains of at least one individual and possible associated funerary objects were discovered by an employee of the Corps of Engineers in 1980 at 23PO320, with additional materials from the site collected a few years later by personnel of Prewitt & Associates, Inc, a firm headquartered in Austin, Texas. At least one other individual is represented by a single incisor collected from Maze Creek Rock Shelter 3 (23DA407) as part of a cultural resource management project in 1992 undertaken by Historic Preservation Associates, headquartered in Fayetteville, Arkansas.

It is also noted that several of the excavated burial sites listed in Appendix C occur further downstream from Stockton Lake on the Sac River, between the upper reaches of Truman Reservoir and the dam at Stockton. Plans to construct Hackleman Corner Reservoir, an impoundment that would have flooded the lower Sac River and its major tributaries, Cedar and Brush creeks, were apparently short-lived, but some survey and excavations were undertaken downstream from Stockton when this proposed reservoir was being planned.

The collections at UMC and ISM for Truman contain the remains of a minimum of 209 individuals from 44 burial sites. The collections derive from excavations that began in the late 1950s and continued intermittently through the 1970s (Chapman 1965a, 1965b, 1965c, 1975; Falk and Lippincott 1974; Wood 1961, 1965b, 1965c). However, most of the human remains and

funerary objects were collected between 1961 and 1969 during authorized intensive excavations by UMC under contract with the U.S. Army Corps of Engineers, Kansas City District, and the National Park Service, in preparation for the construction of the Harry S. Truman Dam and Reservoir. The 44 burial sites again consisted mostly of mounds and cairns, but the collections at ISM contain remains and objects from Rodgers Shelter and two spring sites—Boney Spring and Koch Spring. The collections at both facilities also include 162 associated funerary objects, 9,462 possible associated funerary objects, 27 unassociated funerary objects, and 2,070 possible unassociated funerary objects. Remains of one individual are thought to be at the University of Tennessee, but personnel of MCX-CMAC have not verified this.

PROBLEMS IN LINKING PREHISTORIC GROUPS TO HISTORIC CONTACT-PERIOD TRIBES

Efforts to link ancestral prehistoric archaeological entities to specific historic Indian tribes using the direct historical method are a most difficult and, in some places, virtually impossible task. Some scholars view the intermediate Protohistoric period as one of cultural collapse and contend that prehistoric and historic groups should be treated as entirely distinct entities (e.g., Dobyns 1991; Dunnell 1991; Ramenofsky 1990; cf. Wesson and Rees 2002). However, the records for some populations in eastern and central North America show palpable threads of continuity for this time span. For groups such as the Caddo Nation or the Eastern Band of Cherokee Indians of North Carolina, for example, relatively definitive evidence can be cited to link at least the Late Prehistoric and Protohistoric past to their descendant historic tribal groups (e.g., Moore 1986; Perttula 1992, 2002; Schroedl 2000, 2001). Despite some changes, there is much documented continuity or progressive changes in many aspects of material culture, community structure, settlement strategies, economy, religious (including burial) practices, and other traits, providing a direct link between late prehistoric and historic peoples living essentially in the same traditional culture areas.

The record for some portions of midcontinental North America, however, is far less clear in this regard. For this study of four reservoir areas in western Missouri, one of the barriers in using a direct historical approach to link even the terminal Late Prehistoric past (ca. A.D. 1300–1500) to post-Contact period tribes is the nearly complete absence of Native American archaeological sites in Missouri dating to the sixteenth and early seventeenth centuries. With the exception of the Utz site, which has produced a small number of radiocarbon ages ranging from A.D. 1460 ± 65 to A.D. 1650 ± 55 (Henning 1970:122) and European trade goods dating to A.D. 1673–1712 (Bray 1991:5, 135), and a link between Oneota and at least the Missouria, the archaeological record for Missouri is largely mute for this critical period. It is not a matter of a lack of archaeological attention, since Carl Chapman spent much of his professional career searching for proto-Osage sites. A substantial number of Cultural Resource Management projects also have been undertaken throughout western Missouri over the past half century with virtually no success in locating sites that date to the late sixteenth and early seventeenth centuries. Material evidence strongly suggests that the Osage and other Dhegiha-Sioux groups had their roots in prehistoric Oneota cultures (e.g., see Yelton 1991:134–153), but the distribution of Oneota was very widespread and did not stretch into westcentral Missouri until very late (beginning no earlier than ca. A.D. 1350–1400).

If in fact Dhegihan-Sioux speakers were very Late Prehistoric Oneota-based immigrants to western Missouri, then what tribal entities lived in the vicinity of the four reservoirs under study during most of the Protohistoric period and before? Or, were vast portions of the area (particularly in the Ozarks) largely abandoned during this period? That question may never be answered with a high degree of certainty. However, the record is clear that regional populations had declined considerably by the mid-sixteenth century, a process that may have begun in some places during late Late Prehistoric times. Sites in Missouri dating to the Protohistoric period are

more rare than even Early Paleoindian Clovis sites. Whatever the cause, the people who once lived, hunted, or otherwise occupied some parts of western Missouri during terminal Late Prehistoric times (i.e., prior to A.D. 1400–1500) either did not survive, they moved elsewhere, or they coalesced with other dwindling factions during protohistoric times.

Several factors can be cited as playing a role in the absence of "missing-link" sites in most of Missouri, particularly those dating to at least the late 1500s through the early-middle 1600s, a time also referred to by Dye (1986) as the Protohistoric "Dark Ages." Perhaps foremost among the reasons for the absence of sites in at least western Missouri was the so-called Columbian Exchange, particularly the waves of epidemic diseases that swept throughout North America prior to the presence of European chroniclers. Each new pandemic, whether from malaria, smallpox, measles, typhus, or influenza, may have resulted in an increasingly decimated population. Pandemics could have led to significant adjustments in settlement structure and location (particularly the abandonment of population centers where pandemics would have spread more rampantly), social organization, ritual behavior and burial practices, and nearly all other aspects of human lifeways. For Florida, where early documentation is available, there were at least 10 pandemics during the sixteenth century and nine during the seventeenth century (Deagan 1985; Dobyns 1983). The record is unclear, but similar pandemics also could have spread at the time through the lower Missouri River and central Mississippi River valleys as well. While it has been argued that the worst pandemics post-dated "the spread of European influence" in the deep Southeast (Kelton 2007:99), the transmission of some deadly pathogens almost certainly preceded the first descriptive accounts of contact with Native Americans in the Missouri River valley.

Documentation of the spread of European diseases during the sixteenth and seventeenth centuries in Missouri is of course lacking. However, it is at least a near certainty that at least the Osage and Missouria continued to suffer from a series pandemics, including from smallpox, malaria, and influenza, throughout the eighteenth and early nineteenth centuries (Yelton 1985:130–131). When once the Osage, Missouria, and Kansa may have numbered as many as 4,000–12,000 each prior to the time of frequent European contact, their numbers had decreased substantially by the middle to late eighteenth centuries (Yelton 1985). Frequent intermarriage with Europeans may have helped stave off further depopulation by the late eighteenth and early nineteenth centuries.

The Little Ice Age also may have been another factor of some importance in understanding the demographic and cultural changes attending the late prehistoric through historic time span, at least in northern portions of the midcontinent. Although the best evidence for this period of glacial expansion and cooling comes from Europe, the so-called Little Ice Age has been documented throughout the Northern Hemisphere. It began as early as ca. A.D. 1250–1300 and continued until ca. A.D. 1850–1890 (Grove 2001, 2004; Porter 1986). While the temperature differences between that prevailing before and during the Little Ice Age were perhaps no more than 1–2°C at most (Fagan 2000:53), written records from Europe and ice cores indicate years of severe weather, with sequences of at least two or three years of severe weather occurring from time to time during this nearly 600-year period.

We must be cautious in attributing substantial human adaptational change to climatic perturbations. However, a sequence of even a few years of severe weather accompanied by long winters and late frosts, droughts, or flooding could have translated into food shortages, particularly among more vulnerable, (specialized) maize-centric food producers such as the Oneota. Responses to such hardships as food shortages and depopulation could have been several and not mutually exclusive, including movements of people, perhaps southward (Brain 1978, 1988; Galloway 2002), and chronic raiding and warfare (Dye 2002; LeBlanc 1999). By at least

A.D. 1300, internecine warfare may have become common in portions of Illinois (and presumably Missouri as well) as Oneota groups expanded southward into territories formerly occupied by Mississippian peoples (see Milner et al. 1991). Milner (2005) further demonstrates that the intensity of Late Prehistoric warfare may be vastly underestimated based on existing osteological evidence, since a majority of wounds will not be reflected by damage to skeletal elements. Furthermore, warfare (even the threat thereof) would have had a ripple effect on many other aspects of people's lives, removing people from everyday workforce activities and creating no-man's-lands as protective buffers (Anderson 1990; Larson 1972).

The early acquisition of horses, competition for slaves, an increasing dependence on the fur trade, the rapid assimilation of European technology, and other forms of acculturation also resulted in further changes in settlement type and mobility, economy, religion and other aspects of culture during late Protohistoric and early Historic times. By the time that the first French chroniclers entered the central Mississippi and lower Missouri valleys, the demographic, social, and political landscapes had been substantially altered. Given these conditions, what can we conclude with respect to the cultural affiliations of human remains recovered as the result of archaeological projects related to the construction and operation of the Pomme de Terre, Smithville, Stockton, and Truman reservoirs?

CULTURAL AFFILIATIONS

The assignments of cultural periods in Appendices A-D are based on those presented in a draft report by MCX-CMAC. It is concluded here that nearly all pre-contact burials from the four reservoir areas cannot be assigned with any degree of certainty to a specific historic tribal group. This is notable since perhaps all of the human remains and all but a relatively small number of funerary objects (including possible ones) were recovered from burial sites that are considered pre-contact in age. A vast majority of the burial mounds and cairns have been classified as Woodland, Woodland/Mississippian, Late Prehistoric, or Unknown Prehistoric. Three burial sites also were classified as Late Archaic in age, including two mounds (Holbert Bridge and Colline). The only burials from the Smithville Lake area also derive from Chester Reeves mound and date to the Late Prehistoric Steed-Kisker phase (ca. A.D. 1000–1300).

Establishing cultural affiliation for sites with historic materials also is problematic in the absence of DNA testing, good chronological controls, and an absence of early records dating before Marquette and Joliet traveled down the Mississippi River in 1673. In fact, it can be argued that none of the burial sites listed in Appendices A-D with historic artifacts can be identified beyond that of only having Native American components. To establish this point, let us review what is known about the findings related to the excavation of the Fairfield Mound group, which has been identified as having Late Woodland/Mississippian and "Possible Osage" components.

The Fairfield Mound Group

The four stone-and-earth-fill mounds (or cairns) comprising the Fairfield Mound group were brought to the attention of W. Raymond Wood in 1957. A reconnaissance visit to the site that summer resulted in the recovery of "two brooches of white metal, some thin shell-tempered sherds, and a large shallow side-notched point . . . . These remains suggested an [historic] Osage Indian origin for the mounds" (Wood 1961:27). Test excavations in 1958 revealed that, while some historic materials were present, "the mounds were built at a period earlier than the known Osage occupation of western Missouri by a group which had little in common with Osage material culture as it is known to date" (Wood 1961:127). The mounds were fully excavated in 1964. They were originally categorized as constituting a tentatively defined Fristoe Burial Mound Complex; it was greatly expanded in geographic extent in a later publication by Wood (1967)

based on excavations of some 26 burial tumuli scattered along stream valleys in Benton, Cedar, Dade, Henry, Hickory, Polk, and St. Clair counties. (Note that further refinements to the definition of the Fristoe Burial Complex and a description of other burial complexes—the Bolivar, Stockton, and Nemo complexes—are not discussed here, but have been discussed in Chapter 2.)

Wood (1967:124) contended the Fristoe Burial Complex was primarily Late Woodland in age, dating from ca. A.D. 500 to A.D. 1000. However, few radiocarbon ages have been obtained to better tease out a chronology for this and other complexes, and he also speculated on a much longer time span of ca. A.D. 1 to at least A.D. 1400 for the Fristoe Burial Complex. In fact, he even noted that:

> European or Colonial trade goods at the base of the Wray-Martin Mound 1 and the Fairfield Mound 3—in contexts which do not readily permit the assumption that they are intrusive—suggest that the complex may have persisted into historic times. This is a possibility, however, that is not likely to be embraced enthusiastically in view of the typological earliness of the material culture and the equivocal nature of the evidence for lateness (Wood 1967:124).

His expanded discussion of the complex included the possibility that the trade goods simply represent surface offerings to commemorate the ancient dead, and perhaps not goods associated with a particular historic burial event (Wood 1967:115–116). Although discrete historical-period graves were not found, an alternative explanation is that historic burials within the cairns were perhaps disturbed as the result of previous looting activities. In any regard, there was also no reference to the Osage or to any other Native American tribal group in his expanded treatise on the Fristoe Burial Complex.

Clearly, there is good evidence for historic Native American activities involving at least three of the four mounds in the Fairfield Mound Group. Items listed by the MCX-CMAC that can be considered specific for historic Native Americans consist of the brass or other-alloy bead from Mound 1, the earbob with loop, ball, and cone from Mound 2, the brass tinklers from Mound 3, and the "clips with hasps" (brooches) from Mounds 2 and 3. Other items with less or no racial or ethnic specificity consist of an iron button or button cover, two multifaceted cobalt blue glass beads, and some glass fragments. Although not mentioned in the MCX-CMAC report, Wood (1967:115) also mentioned the recovery of a brass hawk bell.

There are some differences in material composition and artifact identifications between those presented in the MCX-CMAC report versus Wood's (1967) Fristoe Burial Complex volume. While seemingly minor, they do have implications for the age(s) of the historic activities and what particular tribal group, if any, conducted activities at the burial site. The first item of interest is the comb, which was identified in the MCX-CMAC report as being composed of plastic (bakelite?). If plastic, the comb fragment is likely of more recent historic intrusion than the other historic artifacts; perhaps it was introduced as the result of "promiscuous digging . . . through the years" (Wood 1967:10). However, Wood (1961:38, 1967:33) identified the material as that of a hard rubber and that it did not appear "to be of recent manufacture." Charles Goodyear patented the process of vulcanization to produce hard rubber in 1844 and combs manufactured of this material were widely produced by at least the mid 1850s. Also, several of the items such as the earbob and the "clips with hasps" or brooches were identified in the MCX-CMAC draft report as brass, but Wood (1967:115) identified these as being composed "of a white metal (perhaps German silver)." Wood (1967:115) notes that such items "could have been introduced into the Midwest as early as 1750 and persisted as late as the late 1800s."

At this point, let us return to the contention that these burial mounds have a "Possibly Osage" component(s). To answer this question in part, we must have a more precise age for the represented historic artifacts. In the absence of maker's marks and spectrometric or x-ray diffraction analysis of the brooches, however, this cannot be accomplished. Similar types of circular brooches and earbobs were produced after ca. 1750 and commonly traded for furs and other commodities throughout the western Great Lakes region and further southward and southwestward as well (e.g., Quimby 1966:91–94). If composed of German trade silver, however, these artifacts would date to the nineteenth century, perhaps even the middle to late nineteenth century. Hawk's bells have an even longer trade history, whereas monochrome multifaceted glass beads also postdate ca. 1750 and continued to be manufactured and traded throughout much of the nineteenth century.

The geographic distribution of the Fristoe Burial Complex coincides with lands claimed and used by the Osage during much of the period of interest. Thus, the inference of "Possibly Osage" is certainly appropriate, as they undertook much trade with whites throughout the late eighteenth and early nineteenth centuries, including that involving Fort Osage during the period of 1809–1822 (Gregg 1940). Nonetheless, we also know that the Kickapoo and Shawnee occupied settlements in the geographic heart of the Fristoe Burial Complex during the early nineteenth century, and that other groups such as the Delaware probably hunted or passed through the region on occasion as well. In fact, Wood (Chapter 4) comments that "it is tempting to suggest that these Euro-American goods derive from Kickapoo graves intrusive in the mounds, but the material is not diagnostic of any particular group."

Whereas the items are diagnostic of Native Americans, they were truly "generic" mass-produced trade items that were consumed by tribes living throughout central and western North America. For example, virtually identical artifacts have been recovered from a Delaware site (23CN1) in the James River valley of southwest Missouri that dates to the 1820s. These include silver circular brooches, silver earbobs and bangles, brass tinklers, iron cones, brass hawk's bells, monochrome multifaceted glass beads (some are blue), and more. Could this indicate that the historic materials in the three Fairfield mounds derive from Delaware activities? No. However, one could infer "Possible Delaware," "Possible Shawnee," and "Possible Kickapoo," along with "Possible Osage."

Possible Caddoan Connections

There is only one set of sites at one reservoir—Stockton—for which we can posit the possibility of a connection between one or more prehistoric burial sites and a still-existing historic tribe—the Caddo. Materials that are Caddoan or at least imitations of Caddoan-like materials have been found in various portions of southwest Missouri, including the Stockton Lake area. During the period of ca. A.D. 1000–1250, which coincides generally with the Lofton phase to the south in the region surrounding the confluence of the James and White rivers, the Caddo are thought to have expanded considerably northward from their core area in the Arkansas River drainage (Perttula 1989:125). Two prehistoric Caddo civic-ceremonial mound sites occur in southwest Missouri—Lofton and Pineville. Both occur near the Arkansas border and are thus considerable distances (almost 90 km and 100 km, respectively) from the upper reaches of Stockton Lake.

Being along what may have been the short-lived northern fringe of the prehistoric Caddo culture area, the Sac River area "must be considered outside the mainstream of this [Caddoan] Late Prehistoric interregional interaction" (Perttula 1989:127). The evidence for the Sac River valley is simply weaker than that for the lower James, Elk, and Neosho valleys further to the

south and southwest. The most convincing evidence of Caddo presence or influence is from a very small number of sites. Wood and Pangborn (1968a) reported on a Spiro-engraved water bottle from Eureka Mound and McMillan (1966) found bone-tempered sherds in several of the Sand Bluff shelters in the Stockton area. Beyond these few items, however, other ethnically specific Caddo artifacts are lacking. Indirectly, the presence of marine shell associated with a number of burials also is suggestive of at least some Caddo interaction.

Based on the evidence, Chapman (1980:150) tentatively added the Eureka Mound and the Sand Bluff shelters to the so-called Stockton Complex, which Wood (1965a) assigned to the Mississippian period. This assignment was based primarily on the presence of shell-tempered pottery and conch and marine shell from the Gulf Coast. In addition to Eureka Mound, other sites included in the Stockton Complex that are also listed in Appendices A-D of this report consist of the Amity, Alberti, and Matthews mounds, Cordwood Cairn, Harrison Shelter, Gray Shelter, Buck's Cave, and Tater Hole Cave (Chapman 1980:150). Perttula (1989:125) later suggested that the Stockton Complex may date to A.D. 1200–1400, which would place it largely after a presumed southward retraction of the Caddo culture area or its sphere of influence (ca. A.D. 1200–1250). Given that Stockton was on the periphery of the Caddo culture area even when at its maximum northward extent, it is uncertain if the small number of material goods were obtained as the result of trade. It is also uncertain whether the individuals interred in Eureka Mound and perhaps other cairns and mounds of the Stockton Complex were also actually Caddo or some other tribal entity. In the absence of any known Caddoan residential site in the Sac River valley or in one of its tributary valleys, the weight of suspicion falls on the side of trade. However, this too comprises little more than conjecture.

HISTORICAL LINGUISTICS AND MIGRATION LEGENDS

In an effort to supplement the archaeological record, researchers have studied linguistic relationships and migration legends. The study of language relationships allows for strong inferences regarding ancestral relationships, and migration legends can provide some guidance regarding the geographic origins of tribal groups prior to the time of early historic contact. In this study, three scenarios have been described with respect to the origin of the Dhegiha-Sioux speakers (particularly the Osage and the Kansa) found in western Missouri during historic times. These can be referred to as the *Ohio Valley Model*, the *Cahokia-Mississippi Valley Model*, and the *In Situ Model*. Of these, the strongest case has been made to link Osage-Kansa symbolism and iconography with ritualistic art forms and practices of Mississippian-Oneota peoples living in the central Mississippi Valley. Nevertheless, none of these models provides a credible basis for ascribing cultural affiliation to any of the pre-contact burials found in the vicinity of the four reservoirs in western Missouri.

With respect to the Ohio Valley Model, one must place considerable reliance on oral history and interpretations thereof by a number of nineteenth-century scholars, but particularly Dorsey (1886). Jeter (2002) has attempted to provide some support for this model by examining some aspects of the archaeological record. For Jeter (2002), one of the more difficult aspects of the Cahokia-Mississippi Valley and In Situ models is the longhouse architecture of the Osage. Such multifamily or extended family domiciles had considerable social importance and time depth and were utilized by terminal prehistoric Fort Ancient peoples in the upper Ohio Valley. However, O'Brien and Wood (1998:349) have aptly warned against placing too much emphasis on architecture, particularly in light of the fact that some historic groups constructed an array of dwelling types and we simply have relatively limited data on architecture dating from Terminal Prehistoric times through at least Protohistoric times.

The In Situ model posits a link between the historic Osage and the prehistoric Maramec Spring-phase peoples living in the northcentral Ozarks as early as A.D. 400–500 (Ahler et al. 2010; Edging and Ahler 2004; Kreisa et al. 2002; Zeidler and Edging 2009; cf. Emerson and Hughes 2000). This model is contrary to the tribal migration legends, at least insofar as they were reported and interpreted by Dorsey (1886). Archaeological evidence also points more directly to an Oneota origin for the Dhegiha Sioux rather than one based in the Late Woodland Maramec Spring phase of the northcentral and northeastern Ozarks. It also requires the acceptance of a link between presumed symbolic petroglyph imagery of the earth and sky attributed to Maramec Spring-phase people and the dualistic cosmology of the Osage and other Dhegiha-Sioux groups as described in the historic ethnographic literature. From a strictly empirical perspective, this specific link is likely to remain unverifiable and therefore unacceptable to some. Even Ahler et al. (2010:256) note that they have made an "interpretive leap[s]," and McMillan (Chapter 6) cautions that "much of the symbolism discussed is widespread among late prehistoric and historic Indians in the eastern United States and Prairie-Plains." Still, the In Situ model cannot be rejected at this point.

SUMMARY STATEMENT

It is the collective conclusion of everyone involved in this NAGPRA study, including those not listed as authors of this chapter, that all human remains and associated funerary objects are from unaffiliated Native American burials. Our conclusion is based on the evaluation of a variety of evidence, which provides no direct links between the prehistoric and historic burials documented herein and specific historic Native American tribal groups. Framing hypotheses for further work in the region could attain finer resolution of competing ethnogenetic theories connecting at least late prehistoric cultural manifestations with early contact-period groups. However, DNA studies may be the only way to provide direct lines of evidence for ascribing biological (and by extension, cultural) affiliation. Nevertheless, such studies today are generally avoided in deference to understandable concerns by Native Americans regarding the desecration of ancestral remains.

REFERENCES CITED

Adams, Lee
1958 Archaeological Investigations of Southwestern Missouri. *The Missouri Archaeologist* 20:1–199.

Adovasio, James M.
1993 The Ones That Will Not Go Away: A Biased View of Pre-Clovis Populations in the New World. In *From Kostenki to Clovis: Upper Paleolithic-Paleo-Indian Adaptations*, edited by Olga Soffer and Nikoli D. Praslov, pp. 199–218. Plenum Press, New York.

Ahler, Stanley A.
1971 *Projectile Point Form and Function at Rodgers Shelter, Missouri*. Research Series No. 8. Missouri Archaeological Society, Columbia, Missouri.

1976 Sedimentary Processes at Rodgers Shelter. In *Prehistoric Man and His Environments: A Case Study in the Ozark Highland*, edited by W. Raymond Wood and R. Bruce McMillan, pp. 123–139. Academic Press, New York.

Ahler, Stanley, A., and R. Bruce McMillan
1976 Material Culture at Rodgers Shelter: A Reflection of Past Human Activities. In *Prehistoric Man and His Environments: A Case Study in the Ozark Highland*, edited by W. Raymond Wood and R. Bruce McMillan, pp. 163–199. Academic Press, New York.

Ahler, Steven R., Paul P. Kreisa, and Richard Edging
2010 *Marginality and Continuity: The Archaeology of the Northern Ozarks*. Special Publication No. 9. Missouri Archaeological Society, Springfield.

Alex, Lynn M.
2000 *Iowa's Archaeological Past*. University of Iowa Press, Iowa City.

Alvord, Clarence W.
1920 *The Illinois Country 1673–1818*. The Centennial History of Illinois, Vol. 1. Illinois Centennial Commission, Springfield.

Alvord, Clarence W., and Lee Bidgood
1912 *The First Explorations of the Trans-Allegheny Region by the Virginians 1650–1674.* The Arthur H. Clark Company, Cleveland.

Anderson, David G.
1990 *Political Change in Chiefdom Societies: Cycling in the Late Prehistoric Southeastern United States.* Unpublished Ph.D. dissertation, Department of Anthropology, University of Michigan, Ann Arbor.

Anderson, Melville B. (translator)
1898 *Relation of Henri de Tonty Concerning the Explorations of LaSalle from 1678 to 1683.* The Caxton Club, Chicago.

Angelbeck, William O., Terrell L. Martin, Jeffrey J. Berna, and Neal H. Lopinot
2001 Crabtree and Katz: Steed-Kisker Sites in Southeastern Clay County, Missouri. *The Missouri Archaeologist* 62:1–106.

Anonymous
1878a Prehistoric Ruins in Dade County, Missouri. *Western Review of Science and Industry* 2:22-23.

1878b Prehistoric Ruins in Dade County, Missouri. *American Antiquarian* 1(2):76.

n.d. Site Number 23HI87. Site Form, Archaeological Survey of Missouri, Columbia, Missouri.

Baerreis, David A.
1939 Two New Cultures in Delaware County, Oklahoma. *The Oklahoma Prehistorian* 2(1):2–5.

1940 The Neosho Focus. *Society for American Archaeology Notebook* 1:108–109.

1941 Recent Developments in Oklahoma Archaeology (abstract). *Proceedings of the Oklahoma Academy of Science* 21:125–126.

Baerreis, David A., and Reid A. Bryson
1965 Climatic Episodes and the Dating of the Mississippian Cultures. *The Wisconsin Archeologist* 46:203–220.

Bailey, Garrick A.
2001 Osage. In *Handbook of North American Indians, Vol. 13, Part 1, Plains*, edited by Raymond j. DeMaillie, pp. 476–496. Smithsonian Institution, Washington, D.C.

Bailey, Garrick A. (editor)
1995 *The Osage and the Invisible World from the Works of Francis La Flesche.* University of Oklahoma Press, Norman.

Bailey, Garrick A., and Gloria A. Young
2001 Kansa. In *Handbook of North American Indians*, *Vol. 13, Part 1, Plains*, edited by Raymond J. DeMallie, pp. 462–475. Smithsonian Institution, Washington, D.C.

Baird, W. David
1980 *The Quapaw Indians: A History of the Downstream People.* University of Oklahoma Press, Norman.

Balesi, Charles J.
1992 *The Time of the French in the Heart of North America, 1673–1818.* Alliance Francaise, Chicago.

Bannon, John F.
1954 Black Robe Frontiersman: Gabriel Marest, S.J. *Bulletin of the Missouri Historical Society* 10 (April): 351–366.

Bass, William M., III, and R. Bruce McMillan
1973 A Woodland Burial from Boney Spring, Missouri. *Plains Anthropologist* 18(62):313–315.

Bass, William M., III, and William L. Rhule II
1976 Human Burials from Rodgers Shelter. In *Prehistoric Man and His Environments: A Case Study in the Ozark Highland*, edited by W. Raymond Wood and R. Bruce McMillan, pp. 201–209. Academic Press, New York.

Bell, Robert E.
1984 Arkansas Valley Caddoan: The Harlan Phase. In *Prehistory of Oklahoma*, edited by Robert E. Bell, pp. 221–240. Academic Press, Orlando.

Bell, Robert E., and David A. Baerreis
1951 A Survey of Oklahoma Archaeology. *Bulletin of the Texas Archeological and Paleontological Society* 22:7–100.

Benn, David W.
1989 Hawks, Serpents, and Bird-Men: Emergence of the Oneota Mode of Production. *Plains Anthropologist* 34(125):233–260.

Benn, David W., and Neal H. Lopinot
1993 Prehistoric Occupations at Cobb Cave in the Western Ozarks. *The Missouri Archaeologist* 54:55–78.

Benn, David W., and Jack H. Ray
1996 The Prospect Spring Site and the Problem of the Late Woodland/Mississippian Transition in the Western Ozarks. *Midcontinental Journal of Archaeology* 21(1):49–78.

Berry, Brewton, and Carl H. Chapman
1942 An Oneota Site in Missouri. *American Antiquity* 7(3):290–305.

Berry, Brewton, Carl H. Chapman, and John Mack
1944 Archaeological Remains of the Osage. *American Antiquity* 10(1):1–11.

Biggs, Robert W., James Stoutamire, and Rain Vehik
1970 *The Walter Site—A Fluted Point Manifestation in North Central Missouri*. Memoir No. 8, pp. 11–63. Missouri Archaeological Society, Columbia.

Blair, Emma H. (editor)
1996 *The Indian Tribes of the Upper Mississippi Valley and Region of the Great Lakes.* University of Nebraska Press, Lincoln.

Blakeslee, Donald J., and Warren W. Caldwell
1979 *The Nebraska Phase: An Appraisal*. J& L reprint Company, Lincoln.

Boszhardt, Robert F.
2000 Turquoise, Rasps, and Heartlines: The Oneota Bison Pull. In *Mounds, Modoc, and Mesoamerica: Papers in Honor of Melvin L. Fowler*, edited by Steven R. Ahler, pp. 361–373. Scientific Papers Vol. 28. Illinois State Museum, Springfield.

Bowes, John P.
2007 *Exiles and Pioneers: Eastern Indians in the Trans-Mississippi West.* Cambridge University Press, New York.

Bradham, James R.
1962 The Simmons Mound, 23CE104. In *A Preliminary Investigation of the Stockton Reservoir Area*, edited by Carl H. Chapman, pp. 99–97. Report on file at the Archaeological Research Division, University of Missouri, Columbia.

1963 The Simmons Mound, 23CE104: A Rock and Earth Fill Mound in Cedar County, Missouri. *The Missouri Archaeologist* 25:69–85.

Brain, Jeffrey P.
1978 Late Prehistoric Settlement Patterning in the Yazoo Basin and Natchez Bluffs Regions of the Lower Mississippi Valley. In *Mississippian Settlement Patterns*, edited by Bruce D. Smith, pp. 331–368. Academic Press, New York.

1988 *Tunica Archaeology*. Papers of the Peabody Museum of Anthropology and Ethnology Vol. 78. Harvard University, Cambridge, Massachusetts.

Bray, Robert T.
1956 Culture-Complexes and Sequence at the Rice Site (23SN200), Stone County, Missouri. *The Missouri Archaeologist* 18(1–2):47–134.

1961 The Missouri Indian Tribe in Archaeology and History. *Missouri Historical Review* 55(3):213–225.

1963a The Button Cairn, 23HI208, Hickory County, Missouri. *The Missouri Archaeologist* 25:41–54.

1963b Site 23HI30B, Indian Hill Mound. *The Missouri Archaeologist* 25:55–61.

1991 The Utz Site: An Oneota Village in Central Missouri. *The Missouri Archaeologist* 52:1–146.

Brogan, William T.
1981 *The Cuesta Phase: A Settlement Pattern Study*. Anthropological Series No. 9. Kansas State Historical Society, Topeka.

Brown, James A.
1975 Spiro Art and its Mortuary Context. In *Death and the Afterlife in Pre-Columbian America*, edited by Elizabeth P. Benson, pp. 1–32. Dumbarton Oaks Research Library, Washington, D.C.

1984a Arkansas Valley Caddoan: The Spiro Phase. In *Prehistory of Oklahoma*, edited by Robert E. Bell, pp. 241–263. Academic Press, Orlando.

1984b *Prehistoric Southern Ozark Marginality: A Myth Exposed*. Special Publication No. 6. Missouri Archaeological Society, Columbia.

1996 *The Spiro Ceremonial Center: The Archaeology of Arkansas Valley Caddoan Culture in Eastern Oklahoma.* Memoir No. 29. Museum of Anthropology, University of Michigan, Ann Arbor.

2004 The Cahokian Expression: Creating Court and Cult. In *Hero, Hawk, and Open Hand: American Indian Art of the Ancient Midwest and South*, edited by Richard F. Townsend,

pp. 105–123. The Art Institute of Chicago, in cooperation with Yale University Press, New Haven.

2007a On the Identity of the Birdman with Mississippian Period Art and Iconography. In *Ancient Objects and Sacred Realms: Interpretations of Mississippian Iconography*, edited by F. Kent Reilly III and James F. Garber, pp. 56–106. University of Texas Press, Austin.

2007b Sequencing the Braden Art Style within Mississippian Art and Iconography. In *Ancient Objects and Sacred Realms: Interpretations of Mississippian Iconography*, edited by F. Kent Reilly III and James F. Garber, pp. 213–245. University of Texas Press, Austin.

2011 The Regional Culture Signature of the Braden Art Style. In *Visualizing the Sacred: Cosmic Visions, Regionalism, and the Art of the Mississippian World*, edited by George E. Lankford, F. Kent Reilly III, and James F. Garber, pp. 37–63. University of Texas Press, Austin.

Brown, James A., and John E. Kelly

2000 Cahokia and the Southeastern Ceremonial Complex. In *Mounds, Modoc, and Mesoamerica: Papers in Honor of Melvin L. Fowler*, edited by Steven R. Ahler, pp. 469–510. Scientific Paper No. 28. Illinois State Museum, Springfield.

2009 The "Oneotization" of Cahokia Mississippian Peoples. Abstracts of the Kincaid Field Conference, Metropolis, Illinois. Southern Illinois University, Carbondale.

Brown, James A., and Robert K. Vierra

1983 What Happened in the Middle Archaic? Introduction to an Ecological Approach to Koster Site Archaeology. In *Archaic Hunters and Gatherers in the American Midwest*, edited by James L. Phillips and James A. Brown, pp. 165–195. Academic Press, New York.

Brown, Kenneth L.

1981 Excavations at the Sperry Site, 23JA85. In *Prehistoric Cultural Resources within the Right-of-Way of the Proposed Little Blue River Channel, Jackson County, Missouri*, compiled by Kenneth L. Brown and Robert J. Ziegler. Report submitted to the U.S. Army Corps of Engineers, Kansas City District.

1985 *Pomona: A Plains Village Variant in Eastern Kansas and Western Missouri.* Unpublished Ph.D. dissertation, Department of Anthropology, University of Kansas, Lawrence.

Bunch, Ron

n.d. *Missouri Indian Laws*. Electronic document, http://www.rootsweb.ancestry.com/~mo ccga/mo IndianLaw.html, accessed on August 10, 2010.

Bushnell, David I., Jr.

1915 Fragmentary Textiles from Ozark Caves. *Washington Academy of Sciences Journal* 5(9):318–323.

1922 *Villages of the Algonquian, Siouan, and Caddoan Tribes West of the Mississippi*. Bulletin No. 77. Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

Buss, Irven O.
1990 *Elephant Life: Fifteen Years of High Population Density.* Iowa State University Press, Ames.

Byers, Douglas S.
1962 The Restoration and Preservation of Some Objects from Etowah. *American Antiquity* 28(2):206–216.

Calabrese, Francis A.
1969 *Doniphan Phase Origins: An Hypothesis Resulting from Archeological Investigations in the Smithville Reservoir Area, Missouri: 1968.* Department of Anthropology, University of Missouri, Columbia.

Calabrese, Francis A., Rolland E. Pangborn, and Robert J. Young
1969 *Two Village Sites in Southwestern Missouri: A Lithic Analysis*. Research Series No. 7. Missouri Archaeological Society, Columbia.

Caldwell, Joseph R.
1964 Interaction Spheres in Prehistory. In *Hopewellian Studies*, edited by Joseph R. Caldwell and Robert L. Hall, pp. 133–143. Scientific Papers Vol. 12. Illinois State Museum, Springfield.

Callender, Charles
1978a Fox. In *Handbook of North American Indians, Vol. 15, Northeast*, edited by Bruce G. Trigger, pp. 636–647. Smithsonian Institution, Washington, D.C.

1978b Illinois. In *Handbook of North American Indians, Vol. 15, Northeast*, edited by Bruce G. Trigger, pp. 673–680. Smithsonian Institution, Washington, D.C.

1978c Miami. In *Handbook of North American Indians, Vol. 15, Northeast*, edited by Bruce G. Trigger, pp. 681–689. Smithsonian Institution, Washington, D.C.

1978d Sauk. In *Handbook of North American Indians, Vol. 15, Northeast*, edited by Bruce G. Trigger, pp. 648–655. Smithsonian Institution, Washington, D.C.

1978e Shawnee. In *Handbook of North American Indians, Vol. 15, Northeast*, edited by Bruce G. Trigger, pp. 622–635. Smithsonian Institution, Washington, D.C.

Callender, Charles, Richard K. Pope, and Susan M. Pope
1978 Kickapoo. In *Handbook of North American Indians, Vol. 15, Northeast*, edited by Bruce G. Trigger, pp. 656–667. Smithsonian Institution, Washington, D.C.

Calloway, Colin G.
2003 *One Vast Winter Count: The Native American West before Lewis and Clark.* University of Nebraska Press, Lincoln.

Chapman, Carl H.
1946 A Preliminary Survey of Missouri Archaeology: Part 1, Historic Indian Tribes. *The Missouri Archaeologist* 10(1):1–56.

1952 Culture Sequence in the Lower Missouri Valley. In *Archeology of Eastern United States*, edited by James B. Griffin, pp. 139–151. University of Chicago Press, Chicago.

1959a *The Origin of the Osage Indian Tribe: An Ethnographical, Historical and Archaeological Study*. Unpublished Ph.D dissertation, Department of Anthropology, University of Michigan, Ann Arbor.

1959b The Little Osage and Missouri Indian Village Sites ca. 1727–1777 A.D. *The Missouri Archaeologist* 21(1):1–67.

1963 Osage Prehistory. Unpublished manuscript on file at the American Archaeology Division, University of Missouri, Columbia.

1965a The Gray Shelter, 23SR122, Revisited. In *Preliminary Archaeological Investigations in the Kaysinger Bluff Reservoir Area, Missouri, Part I,* edited by Carl H. Chapman, pp. 449–480. Report on file at the Archaeological Research Division, University of Missouri, Columbia.

1965b Cat Hollow Shelter, 23SR126. In *Preliminary Archaeological Investigations in the Kaysinger Bluff Reservoir Area, Missouri, Part I,* edited by Carl H. Chapman, pp. 542–563. Report on file at the Archaeological Research Division, University of Missouri, Columbia.

1965c The Woody Cairn, 23SR135. In *Preliminary Archaeological Investigations in the Kaysinger Bluff Reservoir Area, Missouri, Part I,* edited by Carl H. Chapman, pp. 564–567. Report on file at the Archaeological Research Division, University of Missouri, Columbia.

1974a *Osage Indians III: The Origins of the Osage Indian Tribe.* Garland Press, New York.

1974b The Aboriginal Use and Occupancy of Lands West of the Mississippi River by the Osage Tribe, and Village Locations and Hunting Territories of the Osage from Time Immemorial to 1808 A.D. In *American Indian Ethnohistory—Plains Indians: Osage Indians IV*, edited by David A. Horr, pp. 173–249. Garland Press, New York.

1974c The Indomitable Osage in Spanish Illinois (Upper Louisiana), 1763–1804. In *The Spanish in the Mississippi Valley 1762–1804*, edited by John F. McDermott, pp. 287–313. University of Illinois Press, Urbana.

1975 *The Archaeology of Missouri, I*. University of Missouri Press, Columbia.

1980 *The Archaeology of Missouri, II*. University of Missouri Press, Columbia.

1982 Osage Indians in Missouri and Oklahoma, A.D. 1796–1825. In *Pathways to Plains Prehistory: Anthropological Perspectives of Plains Natives and their Pasts—Papers in Honor of Robert E. Bell*, edited by Don G. Wyckoff and Jack L. Hofman, pp. 19–28. Memoir No. 3. Oklahoma Anthropological Society, Norman.

1985a Introduction. In *Osage and Missouri Indian Life Cultural Change: 1675–1825, Part 1,* edited by Carl H. Chapman, pp. 1–15. Final Performance Report to the National Endowment for the Humanities, Research Grant RA–20296, University of Missouri, Columbia.

1985b Historical Sketch. In *Osage and Missouri Indian Life Cultural Change: 1675–1825, Part 1*, edited by Carl H. Chapman, pp. 46–58. Final Performance Report to the National

Endowment for the Humanities, Research Grant RA–20296, University of Missouri, Columbia.

Chapman, Carl H. (editor)
1985 *Osage and Missouri Indian Life Cultural Change: 1675–1825*. Five volumes. Final Performance Report to the National Endowment for the Humanities, Research Grant RA–20296, University of Missouri, Columbia.

Chapman, Carl H., and Eleanor F. Chapman
1964 *Indians and Archaeology of Missouri*. Missouri Handbook No. 6. University of Missouri Press, Columbia.

Chapman, Carl H., and Rolland E. Pangborn
1962 The Broyles Site, 23CE123. In *A Preliminary Investigation of the Stockton Reservoir Area*, compiled by Carl H. Chapman et al., pp. 98–140. Midwest Research Center, Lincoln, Nebraska.

1965 The Brounlee Shelter, 23SR103. In *Preliminary Archaeological Investigations in the Kaysinger Bluff Reservoir Area, Missouri, Part I,* edited by Carl H. Chapman, pp. 413–448. Report on file at the Archaeological Research Division, University of Missouri, Columbia.

Chapman, Carl H., and Robert P. Wiegers
1985 Archaeological Investigations on Historic Missouri, Little Osage and Big Osage Village Sites. In *Osage and Missouri Indian Life Cultural Change: 1675–1825*, Part 2, edited by Carl H. Chapman, pp. 273–379. Final Performance Report to the National Endowment for the Humanities, Research Grant RA–20296, University of Missouri, Columbia.

Chomko, Stephen A.
1983 *Cultural Resources Survey, Harry S. Truman Dam and Reservoir Project, Vol. VII, Archeological Test Excavations: 1975*. American Archaeology Division, Department of Anthropology, University of Missouri, Columbia.

Chomko, Stephen A., and Gary W. Crawford
1978 Plant Husbandry in Prehistoric Eastern North America: New Evidence for its Development. *American Antiquity* 43(3):405–408.

Clifton, James A.
1978 Potawatomi. In *Handbook of North American Indians*, *Vol. 15, Northeast*, edited by Bruce G. Trigger, pp. 725–742. Smithsonian Institution, Washington, D.C.

Cobb, James E.
1976 *The Functional Analysis of Late Prehistoric Remains from Bontke Shelter*. Unpublished Masters thesis, Department of Anthropology, University of Arkansas, Fayetteville.

Conner, Michael D.
1999a Conclusions. In *Neosho Tradition Occupations in Lawrence County, Missouri*, edited by Michael D. Conner, pp. 85–96. *The Missouri Archaeologist* 60.

1999b Introduction. In *Neosho Tradition Occupations in Lawrence County, Missouri*, edited by Michael D. Conner, pp. 1–12. *The Missouri Archaeologist* 60.

Conner, Michael D (editor)
1999 Neosho Tradition Occupations in Lawrence County, Missouri. *The Missouri Archaeologist* 60:1–106.

2004 *Phase III Investigations at the Walnut Shade Site (23TA708), Taney County Missouri, MoDOT Job No. J8P0612*. Research Report No. 1244. Center for Archaeological Research, Southwest Missouri State University, Springfield.

Conner, Michael D., and Jack H. Ray
1999 Fieldwork Results. In *Neosho Tradition Occupations in Lawrence County, Missouri,* edited by Michael D. Conner, pp. 18–31. *The Missouri Archaeologist* 60.

Conrad, Lawrence A.
1991 The Middle Mississippi Cultures of the Central Illinois River Valley. In *Cahokia and the Hinterlands: Middle Mississippian Cultures of the Midwest*, edited by Thomas E. Emerson and R. Barry Lewis, pp. 119−156. University of Illinois Press, Urbana.

Cook, Thomas G.
1976 *Koster: An Artifact Analysis of Two Archaic Phases in Westcentral Illinois*. Prehistoric Records No. 1. Northwestern University Archeological Program, Evanston.

Cox, Isaac J.
1905–06 *The Journeys of Rene Robert Cavalier Sieur de LaSalle*. Two Volumes. Allerton Book Company, New York.

Deagan, Kathleen A.
1985 Spanish-Indian Interaction in Sixteenth-Century Florida and Hispaniola. In *Cultures in Contact*, edited by William W. Fitzhugh, pp. 281–318. Smithsonian Institution Press, Washington, D.C.

Denny, James M.
2000 Lewis and Clark in the Boonslick. *Boone's Lick Heritage* 8(102):1–26.

Diaz-Granádos, Carol
2004 Marking Stone, Land, Body, and Spirit. In *Hero, Hawk, and Open Hand: American Indian Art of the Ancient Midwest and South*, edited by Richard F. Townsend, pp. 139–149. The Art Institute of Chicago in cooperation with Yale University Press, New Haven.

Diaz-Granádos, Carol, and James R. Duncan
2000 *The Petroglyphs and Pictographs of Missouri*. University of Alabama Press, Tuscaloosa.

Diaz-Granádos, Carol, Marvin W. Rowe, Marian Hyman, James R. Duncan, and John R. Southon
2001 AMS Radiocarbon Dates for Charcoal from three Missouri Pictographs and their Associated Iconography. *American Antiquity* 66(3):481–493.

Dickson, Don R.
1991 *The Albertson Site: A Deeply and Clearly Stratified Ozark Bluff Shelter*. Research Series No. 41. Arkansas Archeological Survey, Fayetteville.

1999 Fluted Bifaces from Barry and Stone Counties, Missouri. *Missouri Archaeological Society Quarterly* 16(1):13–14.

2002 *Prehistoric Native Americans in the Ozarks.* Special Publication No. 1. Ozark Resources and Historical Publications, Fayetteville, Arkansas.

Dillehay, Tom D. (editor)
1989 *Monte Verde: A Late Pleistocene Settlement in Chile, Vol. I, Palaeoenvironment and Site Context.* Smithsonian Institution Press, Washington, D.C.

1997 *Monte Verde: A Late Pleistocene Settlement in Chile, Vol. II, The Archaeological Context and Interpretation.* Smithsonian Institution Press, Washington, D.C.

Din, Gilbert C., and Abraham P. Nasatir
1983 *The Imperial Osages: Spanish-Indian Diplomacy in the Mississippi Valley*. University of Oklahoma Press, Norman.

Dincauze, Dena F.
1984 An Archaeological Evaluation of the Case for Pre-Clovis Occupations. *Advances in World Archaeology* 3:275–323.

Dobyns, Henry F.
1983 *The Number Became Thinned: Native American Population Dynamics in Eastern North America.* University of Tennessee Press, Knoxville.

Dorsey, J. Owen
1885a On the Comparative Phonology of Four Siouan Languages. In *Annual Report of the Board of Regents of the Smithsonian Institution for the Year 1883*, pp. 919–929. Washington, D.C.

1885b Mourning and War Customs of the Kansas. *The American Naturalist* 19(7):670–680.

1886 Migrations of Siouan Tribes. *The American Naturalist* 20(3):211–222.

1890 *The Cegiha Language*. Contributions to North American Ethnology No. 6. U.S. Geographical and Geological Survey of the Rocky Mountain Region. Washington, D.C.

Dorsey, J. Owen, and Cyrus Thomas
1911a Iowa. In *Handbook of Indians North of Mexico*, edited by Frederick W. Hodge, pp. 612–614. Bulletin No. 30(1). Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

1911b Missouri. In *Handbook of Indians North of Mexico*, edited by Frederick W. Hodge, pp. 911–912. Bulletin No. 30(1). Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

Douthit, Mary Lee
1981 *Final Report on Archaeological Investigations of Sites Along the James River Interceptor Sewer, City of Springfield, Greene County, Missouri, Vol. I.* Research Report No. 133. Center for Archaeological Research, Southwest Missouri State University, Springfield.

Drooker, Penelope B.
1997 *The View from Madisonville: Protohistoric Western Fort Ancient Interaction Patterns.* Memoirs No. 31. Museum of Anthropology, University of Michigan, Ann Arbor.

Duncan, James R., and Carol Diaz-Granádos
2002 Empowering the SECC: The "Old Woman" and Oral Tradition. In *The Rock-Art of Eastern North American: Capturing Images and Insight,* edited by Carol Diaz-Granados and James R. Duncan, pp. 190–215. University of Alabama Press, Tuscaloosa.

Dunnell, Robert C.
1991 Methodological Impacts of Catastrophic Depopulation on American Archaeology and Ethnology. In *Columbia Consequences Vol. 3*, *the Borderlands in Pan-American Perspective*, edited by David H. Thomas, pp. 561–580. Smithsonian Institution Press, Washington, D.C.

Dye, David H.
1986 Introduction. In *The Protohistoric Period in the Mid-South, 1500–1700: Proceedings of the 1983 Mid-South Archaeological Conference*, edited by David H. Dye and Ronald C. Brister, pp. xi–xiv. Archaeological Reports No. 18. Mississippi Department of Archives and History, Jackson.

2002 Warfare in the Protohistoric Southeast, 1500–1700. In *Between Contacts and Colonies: Archaeological Perspectives on the Protohistoric Southeast*, edited by Cameron B. Wesson and Mark A. Rees, pp. 126–141. University of Alabama Press, Tuscaloosa.

Edging, Richard, and Steven R. Ahler
2004 Rock-Art and Late Woodland Settlement in the Northern Ozarks. In *The Rock-Art of Eastern North America: Capturing Images and Insight*, edited by Carol Diaz-Granados and James R. Duncan, pp. 90–109. The University of Alabama Press, Tuscaloosa.

Emerson, Thomas E.
1986 A Retrospective Look at the Earliest Woodland Cultures in the American Heartland. In *Early Woodland Archeology*, edited by Kenneth B. Farnsworth and Thomas E. Emerson, pp. 621–633. Center for American Archeology Press, Kampsville, Illinois.

Emerson, Thomas E., and Randall E. Hughes
2000 Figurines, Flint Clay Sourcing, the Ozark Highlands, and Cahokian Acquisition. *American Antiquity* 65(1):79–101.

Emerson, Thomas E., Randall E. Hughes, Mary R. Hunes, and Sarah U. Wisseman
2003 The Sourcing and Interpretation of Cahokia-Style Figurines in the Trans-Mississippi South and Southeast. *American Antiquity* 68(2):287–313.

Esarey, Duane, and Lawrence A. Conrad
1998 The Bold Counselor Phase of the Central Illinois River Valley: Oneota's Middle Mississippian Margin. *The Wisconsin Archeologist* 79(2):38–61.

Fagan, Brian
2000 *The Little Ice Age: How Climate Made History, 1300–1850*. Basic Books, New York.

Falk, Carl R.
1969 *Archeological Salvage in the Kaysinger Bluff Reservoir, Missouri: 1966.* American Archaeology Division, University of Missouri, Columbia.

Falk, Carl R., and Kerry A Lippincott
1974 *Archaeological Investigations in the Harry S. Truman Reservoir, Missouri, 1967–1968.* Midwest Research Center, Lincoln, Nebraska.

Farnsworth, Kenneth B., and Jodie A. O'Gorman
1998 Oneota in the Lower Illinois River Valley. *The Wisconsin Archeologist* 79(2):62–92.

Featherstonhaugh, George W.
1844 *Excursion Through the Slave States*. Harper & Brothers, New York.

Fletcher, Alice C., and Francis La Flesche
1911 *The Omaha Tribe*. Annual Report No. 27. Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

Fogelson, Raymond D.
2004 Cherokee in the East. In *Handbook of North American Indians*, *Vol. 14, Southeast*, edited by Raymond D. Fogelson, pp. 337–353. Smithsonian Institution, Washington, D.C.

Foley, William E.
1989 *The Genesis of Missouri: From Wilderness Outpost to Statehood.* University of Missouri Press, Columbia.

Ford, James A., and Clarence H. Webb
1956 *Poverty Point, a Late Archaic Site in Louisiana*. Anthropological Papers No. 46(1). American Museum of Natural History, New York.

Ford, Richard I.
1974 Northeastern Archaeology: Past and Future Directions. *Annual Review of Anthropology* 3:385–413.

Foreman, Grant
1936 *Indians and Pioneers: The Story of the American Southwest before 1830.* University of Oklahoma Press, Norman.

Fortier, Edward J.
1909 The Establishment of the Tamarois Mission. *Transactions of the Illinois State Historical Society for the Year 1908*, pp. 233–239. Illinois State Historical Library, Springfield.

Foster, William C. (editor)
2003 *The La Salle Expedition on the Mississippi River: A Lost Manuscript of Nicolas de La Salle, 1682.* Texas State Historical Association, Austin.

Freeman, Joan E.
1959 *The Neosho Focus: A Late Prehistoric Culture in Northeastern Oklahoma.* Unpublished Ph.D. dissertation, Department of Anthropology, University of Wisconsin, Madison.

1962 The Neosho Focus: A Late Prehistoric Culture in Northeastern Oklahoma. *Bulletin of the Oklahoma Anthropological Society* 10:1–25.

Freeman, Joan E., and A. Dewey Buck, Jr.
1960 Woodward Plain and Neosho Punctate, Two Shell Tempered Pottery Types of Northeastern Oklahoma. *Bulletin of the Oklahoma Anthropological Society* 8:3–16.

Fritz, Gayle J.
1986 *Prehistoric Ozark Agriculture: The University of Arkansas Rockshelter Collections*. Unpublished Ph.D. dissertation, Department of Anthropology. University of North Carolina at Chapel Hill.

Gallatin, Albert
1836 *A Synopsis of the Indian Tribes of North America*. Archaeologia Americana, Transactions and Collections of the American Antiquarian Society 2. Cambridge, Massachusetts.

Galloway, Patricia
2002 Colonial Period Transformations in the Mississippi Valley: Disintegration, Alliance, Confederation, Playoff. In *The Transformation of the Southeastern Indians*, edited by Robbie Ethridge and Charles Hudson, pp. 225–247. University Press of Mississippi, Jackson.

Galm, Jerry R.
1984 Arkansas Valley Caddoan Formative: The Wister and Fourche Maline Phases. In *Prehistory of Oklahoma*, edited by Robert E. Bell, pp. 199–219. Academic Press, Inc., Orlando.

Gibson, Arrell M.
1963 *The Kickapoos: Lords of the Middle Border*. University of Oklahoma Press, Norman.

Gilbert, M. Thomas P., Dennis L. Jenkins, Anders Gotherstrom, Nuria Naveran, Juan J. Sanchez, Michael Hofreiter, Philip F. Thomsen, Jonas Binladen, Thomas F. G. Higham, Robert M. Yohe II, Robert Parr, Linda S. Cummings, and Eske Willerslev
2008 DNA from Pre-Clovis Human Coprolites in Oregon, North America. *Science* Express, April 3.

Gillam, Christopher J.
1996 A View of Paleoindian Settlement from Crowley's Ridge. *Plains Anthropologist* 41(157):273–286.

Girard, Jeffrey S., and Martha Doty Freeman
1992 *Archeological Survey and Testing at Pomme de Terre and Stockton Lakes, Cedar, Dade, Hickory, and Polk Counties, Missouri*. Prewitt and Associates, Austin Texas.

Goddard, Ives
1978 Delaware. In *Handbook of North American Indians*, *Vol. 15, Northeast*, edited by Bruce G. Trigger, pp. 213–239. Smithsonian Institution, Washington, D.C.

1996a Introduction. In *Handbook of North American Indians, Vol. 17, Languages*, edited by Ives Goddard, pp. 1–16. Smithsonian Institution, Washington, D.C.

1996b The Classification of the Native Languages of North America. In *Handbook of North American Indians, Vol. 17, Languages*, edited by Ives Goddard, pp. 290–323. Smithsonian Institution, Washington, D.C.

Good, Mary E.
1972 *Guebert Site: An 18th Century Historic Kaskaskia Indian Village in Randolph County, Illinois.* Memoir No. 2. Central States Archaeological Society.

Goodyear, Albert C., III
1982 The Chronological Position of the Dalton Horizon in the Southeastern United States. *American Antiquity* 47(2):382–395.

Graham, Russell W., and Marvin Kay
1988 Taphonomic Comparisons of Cultural and Noncultural Faunal Deposits at the Kimmswick and Barnhardt Sites, Jefferson County, Missouri. In *Late Pleistocene and Early Holocene Paleoecology and Archeology of the Eastern Great Lakes Region*, edited by Richard S. Laub, Norton G. Miller, and David W. Steadman, pp. 227–240. Bulletin No. 33. Buffalo Society of Natural Sciences, Buffalo, New York.

Graham, Russell W., C. Vance Haynes, Donald L. Johnson, and Marvin Kay
1981 Kimmswick: A Clovis-Mastodon Association in Eastern Missouri. *Science* 213(4512):1115–1117.

Grantham, Larry
1993 The Illini Village of the Marquette and Jolliet Voyage of 1673. *The Missouri Archaeologist* 45:1–20.

Green, Thomas J., and Cheryl A. Munson
1978 Mississippian Settlement Patterns in Southwestern Indiana. In *Mississippian Settlement Patterns*, edited by Bruce D. Smith, pp. 293–330. Academic Press, New York.

Gregg, Kate L.
1938–1939 The War of 1812 on the Missouri Frontier. *Missouri Historical Review* 33:3–22, 184–202.

1940 The History of Fort Osage. *Missouri Historical Review* 34(4):439–488.

Griffin, James B.
1937a The Archaeological Remains of the Chiwere Sioux. *American Antiquity* 2(3):180–181.

1937b Cultural Identity of the Ozark "Top Layer." *American Antiquity* 2(4):296–297.

1942 On the Historic Location of the Tutelo and the Mohetan in the Ohio Valley. *American Anthropologist* 44(2):275–280.

1946 Cultural Change and Continuity in Eastern United States Archaeology. In *Man in Northeastern North America*, edited by Frederick Johnson, pp. 37–95. Papers of the Robert S. Peabody Foundation for Archaeology No. 3. Andover, Massachusetts.

1960 A Hypothesis for the Prehistory of the Winnebago. In *Culture in History: Essays in Honor of Paul Radin*, edited by Stanley Diamond, pp. 809–865. Columbia University Press, New York.

1965 Hopewell and the Dark Black Glass. *The Michigan Archaeologist* 11(3–4):115–155.

Grimshaw, Allen
1965 Preliminary Notes on the Don Bell Site, 23HE1. In *Preliminary Archaeological Investigations in the Kaysinger Bluff Reservoir Area, Missouri, Part I,* edited by Carl H. Chapman, pp. 264–281. Report on file at the Archaeological Research Division, University of Missouri, Columbia.

Grove, Jean M.
2001 The Initiation of the "little Ice Age" in Regions Round the North Atlantic. *Climatic Change* 48(1):53–82.

2004 *Little Ice Ages: Ancient and Modern*. Two Volumes. 2nd Edition. Routledge, New York.

Haines, Francis
1938 The Northward Spread of Horses among the Plains Indians. *American Anthropologist* 40(3):429–437.

Hajic, Edwin R., Rolfe D. Mandel, and E. Arthur Bettis III
2000 Stratigraphic and Paleoenvironmental Investigations. In *The 1999 Excavations at the Big Eddy Site (23CE426) in Southwest Missouri*, edited by Neal H. Lopinot, Jack H. Ray, and Michael D. Conner, pp. 26–35. Special Publication No. 3. Center for Archaeological Research, Southwest Missouri State University, Springfield.

Hajic, Edwin R., Rolfe D. Mandel, Jack H. Ray, and Neal H. Lopinot
1998 Geomorphology and Geoarchaeology. In *The 1997 Excavations at the Big Eddy Site (23CE426) in Southwest Missouri*, edited by Neal H. Lopinot, Jack H. Ray, and Michael D. Conner, pp. 26–35, pp. 74–109. Special Publication No. 2. Center for Archaeological Research, Southwest Missouri State University, Springfield.

Hale, Horatio
1883 The Tutelo Tribe and Language. *Proceedings of the American Philosophical Society* 21:1–47.

Hall, Robert L.
1980 An Interpretation of the Two-Climax Model of Illinois Prehistory. In *Early Native Americans: Prehistoric Demography, Economy, and Technology*, edited by David L. Browman, pp. 401–462. Mouton Publishers, The Hague.

1997 *An Archaeology of the Soul: North American Indian Belief and Ritual.* University of Illinois Press, Urbana.

2004 The Cahokia Site and its People. In *Hero, Hawk, and Open Hand: American Indian Art of the Ancient Midwest and South*, edited by Richard F. Townsend, pp. 93–103. The Art Institute of Chicago in cooperation with Yale University Press, New Haven.

2006 Exploring the Mississippian Big Bang at Cahokia. In *A Pre-Columbian World*, edited by Jeffrey Quilter and Mary Miller, pp. 187–229. Dumbarton Oaks, Washington, D.C.

Hamilton, Raphael N.
1970 *Marquette's Explorations: The Narratives Reexamined.* The University of Wisconsin Press, Madison.

Hamilton, Theodore M.
1993 The Miami Mastodon, 23SA212. *The Missouri Archaeologist* 54:79–88.

Harcourt, James P.
1994 *A Management Summary for the Step Two Archeological Excavations at the Brown Bluff Site (3WA10), Washington County, Arkansas*. Project No. 896. Sponsored Research Program, Arkansas Archeological Survey, University of Arkansas, Fayetteville.

Harcourt, James P., and Alan J. Hawkins
1995 *Phase Two Investigations of Fourteen Sites in the Highway 412 Corridor Between Tontitown and Siloam Springs, Washington and Benton Counties, Arkansas*. Project No. 819. Sponsored Research Program, Arkansas Archeological Survey, University of Arkansas, Fayetteville.

Harrington, Mark R.
1924a The Ozark Bluff-Dwellers. *American Anthropologist* 26(1):1–21.

1924b Explorations in the Ozark Region. *Indian Notes* 1(1):3–7. Museum of the American Indian, Heye Foundation, New York.

1960 *The Ozark Bluff Dwellers*. Indian Notes and Monographs Vol. XII. Museum of the American Indian, Heye Foundation, New York.

Harvey, Amy E.
1962 *Temporal-Cultural Analysis of Archaeological Remains in a Group of Rock Shelters in Southwest Missouri.* Unpublished M.A. thesis, Department of Anthropology, University of Missouri, Columbia.

Hathcock, Roy
1983 *The Quapaw and Their Pottery*. Hurley Press, Camden, Arkansas.

Harrison, Lowell H., and James C. Klotter
1997 *A New History of Kentucky*. The University Press of Kentucky, Lexington.

Hauser, Raymond D.
1973 *An Ethnohistory of the Illinois Indian Tribe, 1673–1832.* Unpublished Ph.D. dissertation, Department of History, Northern Illinois University, DeKalb.

Haynes, C. Vance
1969 The Earliest Americans. *Science* 166(3906):709–716.

1982 Were Clovis Progenitors in Beringia? In *Paleoecology of Beringia*, edited by David M. Hopkins, John V. Matthews, Jr., Charles E. Schweger, and Steven B. Young, pp. 383–398. Academic Press, New York.

1988 Geofacts and Fancy. *Natural History* 2(88):4–12.

1991 Geoarchaeological and Paleohydrological Evidence for a Clovis-Age Drought in North America and Its Bearing on Extinction. *Quaternary Research* 35(3):438–450.

Henning, Dale R.
1967 Mississippian Influences on the Eastern Plains Border: An Evaluation. *Plains Anthropologist* 12(36):184–194.

1970 Development and Interrelationships of Oneota Culture in the Lower Missouri River Valley. *The Missouri Archaeologist* 32:1–180.

1993 The Adaptive Patterning of the Dhegiha Sioux. *Plains Anthropologist* 38(146):253–264.

1998a The Oneota Tradition. In *Archaeology on the Great Plains*, edited by W. Raymond Wood, pp. 345–414. University Press of Kansas, Lawrence.

1998b Oneota: The Western Manifestations. *The Wisconsin Archeologist* 79(2):238−247.

Henning, Dale R., and Rolland E. Pangborn
1960 Two Rock Cairns (23SN564 and 23SN565). In *Archaeological Investigations in the Table Rock Reservoir Area, Missouri, Part IV: Shelter, Dry Shelter, Open Site and Rock Cairn Excavations,* pp. 814–820. Report on file at the American Archaeology Division, University of Missouri, Columbia.

Henning, Dale R., and Thomas D. Thiessen
2004 Regional Prehistory. In *Dhegihan and Chiwere Siouans in the Plains: Historical and Archaeological Perspectives, Part 2*, edited by Dale R. Henning and Thomas D. Thiessen, pp. 381–398. Plains Anthropologist Memoir No. 36.

Hill, Asa T., and Waldo R. Wedel
1936 Excavations at the Leary Indian Village and Burial Site, Richardson County, Nebraska. *Nebraska History* 17:3–73.

Hoffhaus, Charles E.
1984 *Chez les Canses: Three Centuries at Kawsmouth, the French Foundations of Metropolitan Kansas City.* Lowell Press, Kansas City, Missouri.

Hoffman, Michael P.
1990 The Terminal Mississippian Period in the Arkansas River Valley and Quapaw Ethnogenesis. In *Towns and Temples along the Mississippi*, edited by David H. Dye and Cheryl Anne Cox, pp. 208–226. The University of Alabama Press, Tuscaloosa.

1993a Identification of Ethnic Groups Contacted by the de Soto Expedition in Arkansas. In *The Expedition of Hernando de Soto West of the Mississippi, 1541–1543*, edited by Gloria A. Young and Michael P. Hoffman, pp. 132–142. The University of Arkansas Press, Fayetteville.

1993b The Depopulation and Abandonment of Northeastern Arkansas in the Protohistoric Period. In *Archaeology of Eastern North America: Papers in Honor of Stephen Williams*, edited by James B. Stoltman, pp. 261–275. Archaeological Report No. 25. Mississippi Department of Archives and History, Jackson.

Houck, Louis
1908 *A History of Missouri, from the Earliest Explorations and Settlements until the Admission of the State into the Union.* Two Volumes. R. R. Donnelley & Sons Company, Chicago.

1909 *The Spanish Regime in Missouri.* Two Volumes. R. R. Donnelley & Sons Company, Chicago.

Howard, James H.
1956 The Persistence of Southern Cult Gorgets among the Historic Kansa. *American Antiquity* 21(3):301–303.

Hutawa, Edward
1844 *Sectional Map of the State of Missouri, Compiled from United States Surveys and Other Sources.* Edward Hutawa, St. Louis, Missouri.

Hyde, George E.
1951 *Pawnee Indians*. University of Denver Press, Denver.

1962 *Indians of the Woodlands: From Prehistoric Times to 1725.* University of Oklahoma Press, Norman.

Irving, William N.
1985 Context and Chronology of Early Man in the Americas. *Annual Review of Anthropology* 14:529–555.

Jackson, Donald
1961 A New Lewis and Clark Map [Lewis and Clark 1804]. *Missouri Historical Society Bulletin* 17(1–2):117–132.

1966 *Journals* [of Zebulon M. Pike], *with Letters and Documents*. Two volumes. University of Oklahoma Press, Norman.

Jackson, Douglas K.
1998 Settlement on the Southern Frontier: Oneota Occupations in the American Bottom. *The Wisconsin Archeologist* 79 (2):93–116.

James, Edwin (compiler)
1823 *Account of an Expedition from Pittsburgh to the Rocky Mountains, Performed in the Years 1819 and 1820, by Order of the Honorable J. C. Calhoun, Secretary of War, under the Command of Major Stephen H. Long, Vol. 1.* H. C. Carey and L. Lea, Philadelphia.

Jeter, Marvin D.
2002 From Prehistory through Protohistory to Ethnohistory in and near the Northern Lower Mississippi Valley. In *The Transformation of the Southeastern Indians 1540–1760*, edited by Robbie Ethridge and Charles Hudson, pp. 177–223. University Press of Mississippi, Jackson.

2009 Shatter Zone Shock Waves along the Lower Mississippi. In *Mapping the Mississippian Shatter Zone: the Colonial Indian Slave Trade and Regional Instability in the American South*, edited by Robbie Ethridge and Sheri M. Shuck-Hall, pp. 365–387. University of Nebraska Press, Lincoln.

Johnson, Alfred E.
1979 Kansas City Hopewell. In *Hopewell Archaeology: The Chillicothe Conference*, edited by David S. Brose and N'omi Greber, pp. 86–93. Kent State University Press, Kent, Ohio.

1983 Late Woodland in the Kansas City Locality. *Plains Anthropologist* 28(100):99–108.

1991 Kansa Origins: An Alternative. *Plains Anthropologist* 36(133):57–66.

Jones, A. Holly
2008 Archaeology, History, and Geoscience of Trail of Tears Sites in Greene and Christian Counties. *The Missouri Archaeologist* 69:105–130.

Justice, Noel D.
1987 Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States. Indiana University Press, Bloomington.

Kappler, Charles J. (editor)
1903 *Indian Affairs: Laws and Treaties*, *Vol. 2*. Fifty-seventh Congress, 57th Session, Senate Document No. 457.

Kay, Marvin
1968 Two Historic Indian Burials from an Open Site, 23AD95, Adair County, Missouri. *Plains Anthropologist* 13(40):103–115.

1975a *Central Missouri Hopewell Subsistence-Settlement System*. Unpublished Ph.D dissertation, Department of Anthropology, University of Colorado, Boulder.

1975b Social Distance among Central Missouri Hopewell Settlements: A First Approximation. *American Antiquity* 40(1):64–71.

1982a Stylistic Study of Chipped Stone Points from Rodgers Shelter. In *Holocene Adaptations within the Lower Pomme de Terre River Valley, Missouri*, *Vol. 3*, edited by Marvin Kay, pp. 379–551. Illinois State Museum, Springfield.

1982b Project Evaluation and Summary. In *Holocene Adaptations within the Lower Pomme de Terre River Valley, Missouri, Vol. 3*, edited by Marvin Kay, pp. 729–742. Illinois State Museum, Springfield.

1983 Archaic Period Research in the Western Ozark Highland, Missouri. In *Archaic Hunters and Gatherers in the American Midwest*, edited by James L. Phillips and James A. Brown, pp. 41–70. Academic Press, New York.

Kay, Marvin (editor)
1982 *Holocene Adaptations within the Lower Pomme de Terre River Valley, Missouri, Vols. I–III.* Illinois State Museum, Springfield.

Kay, Marvin, and Alfred E. Johnson
1977 Havana Tradition Chronology of Central Missouri. *Midcontinental Journal of Archaeology* 2(2):195–217.

Kay, Marvin, Frances B. King, and Christine K. Robinson
1980 Cucurbits from Phillips Spring: New Evidence and Interpretations. *American Antiquity* 45(4):806–822.

Kay, Marvin, George Sabo III, and Ralph Merlett
1989 Late Prehistoric Settlement Patterning: A View from Three Caddoan Civic Ceremonial Centers in Northeast Arkansas. In *Contributions to Spiro Archaeology: Mound Centers and Regional Perspectives,* edited by J. Daniel Rogers, Don G. Wyckoff, and Dennis A. Peterson, pp. 129–157. Studies in Oklahoma's Past No. 16. Oklahoma Archeological Survey, Norman.

Kehoe, Alice B.
2007 Osage Texts and Cahokia Data. In *Ancient Objects and Sacred Realms: Interpretations of Mississippian Iconography*, edited by F. Kent Reilly III and James F. Garber, pp. 246–261. University of Texas Press, Austin.

Keller, Charles M.
1965 Preliminary Archaeological Reconnaissance and Testing. In *Preliminary Archaeological Investigations in the Kaysinger Bluff Reservoir Area, Missouri, Part I,* edited by Carl H. Chapman, pp. 171–219. Report on file at the Archaeological Research Division, University of Missouri, Columbia.

Kellogg, Louise P.
1917 *Early Narratives of the Northwest, 1634–1699.* Charles Scribner's Sons, New York.

Kelley, Jane H., and Marsha P. Hanen
1988 *Archaeology and the Methodology of Science*. University of New Mexico Press, Albuquerque.

Kelton, Paul
2007 *Epidemics and Enslavement: Biological Catastrophe in the Native Southeast, 1492–1715*. University of Nebraska Press, Lincoln.

King, Duane H.
2004 Cherokee in the West: History since 1776. In *Handbook of North American Indians, Vol. 14, Southeast*, edited by Raymond D. Fogelson, pp. 354–372. Smithsonian Institution, Washington, D.C.

King, James E., and Everett H. Lindsay
1976 Late Quaternary Biotic Records from Spring Deposits in Western Missouri. In *Prehistoric Man and His Environments: A Case Study in the Ozark Highland*, edited by W. Raymond Wood and R. Bruce McMillan, pp. 63–78. Academic Press, New York.

Kinnaird, Lawrence
1946–1949 *Spain in the Mississippi Valley, 1765–1794*. Three Volumes. Government Printing Office, Washington.

Kläy, Ernst J., and Hans Läng
1984 *Das Romantische Leben der Indianer; Waren Meine Freunde; Malerisch Darzustellen ... Leben und Werk von Rudolf Friedrich Kurz (1818–1871).* Verlag AARE, Solothern, Switzerland.

Klinger, Timothy C., Don R. Dickson, Steven M. Imhoff, and James E. Price
1993 *Stockton Lake Wimmer Collections*. Report No. 93–13. Historic Preservation Associates, Fayetteville, Arkansas.

Knight, Vernon J., Jr., James A. Brown, and George E. Lankford
2001 On the Subject Matter of Southeastern Ceremonial Complex Art. *Southeastern Archaeology* 20(2):129–141.

Krause, Richard A.
1969 Correlation of Phases in Central Plains Prehistory. In *Two House Sites in the Central Plains: An Experiment in Archaeology*, edited by W. Raymond Wood, pp. 82–96. Plains Anthropologist Memoir No. 6.

Kreisa, Paul P., Richard Edging, and Steven R. Ahler
2002 The Woodland Period in the Northern Ozarks of Missouri. In *The Woodland Southeast*, edited by David G. Anderson and Robert C. Mainfort, Jr., pp. 113–133. University of Alabama Press, Tuscaloosa.

Krieger, Alex D.
1964 Early Man in the New World. In *Prehistoric Man in the New World*, edited by Jesse D. Jennings and Edward Norbeck, pp. 28–81. University of Chicago Press, Chicago.

Kurz, Rudolph Friedrich
1937 *Journal of Rudolph Friedrich Kurz.* Translated by Myrtis Jarrell and edited by John N. B. Hewitt. Bulletin No. 115. Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

La Flesche, Francis
1917 Omaha and Osage Traditions of Separation. In *Proceedings of the Nineteenth International Congress of Americanists*, edited by Frederick W. Hodge, pp. 469–472. Washington, D.C.

1921 *The Osage Tribe: Rite of the Chiefs, Saying of the Ancient Men.* In Thirty-sixth Annual Report of the Bureau of American Ethnology (1914–1915), pp. 35–604. Washington, D.C.

1925 *The Osage Tribe: The Rite of Vigil.* In Thirty-Ninth Annual Report of the Bureau of American Ethnology (1917–1918), pp. 31–630. Washington, D.C.

1928 *The Osage Tribe: Two Versions of the Child-Naming Rite.* In Forty-Third Annual Report of the Bureau of American Ethnology (1925–1926), pp. 23–164. Washington, D.C.

1930 *The Osage Tribe: Rite of the Wa-Xo'-Be.* In Forty-Fifth Annual Report of the Bureau of American Ethnology (1927–1928), pp. 523–833. Washington, D.C.

1939 *War Ceremony and Peace Ceremony of the Osage Indians*. Bulletin No. 101. Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

La Hontan, Louis-Armand de Lom d'Arce, Baron de
1703 *New Voyages to North-America.* Two Volumes. London.

Larson, Lewis H., Jr.
1972 Functional Considerations of Warfare in the Southeast during the Mississippi Period. *American Antiquity* 37(3):383–392.

Lay, James H.
1969 *History of Benton County, Missouri, to July 4, 1876.* The Printery, Warsaw, Missouri.

LeBlanc, Steven A.
1999 *Prehistoric Warfare in the American Southwest*. University of Utah Press, Salt Lake City.

Logan, Brad
1988 The Plains Village Frontier in the Kansas City Locality. *The Missouri Archaeologist* 49:3–25.

1996 The Plains Village Period on the Central Plains. In *Archeology and Paleoecology of the Central Great Plains*, edited by Jack L. Hofman, pp. 123–133. Research Series No. 48. Arkansas Archeological Survey, Fayetteville.

2006 Woodland Adaptations in Eastern Kansas. In *Kansas Archaeology*, edited by Robert J. Hoard and William E. Banks, pp. 76–92. University of Kansas Press.

Lopinot, Neal H.
1998 Regional Culture History. In *The 1997 Excavations at the Big Eddy Site (23CE426) in Southwest Missouri*, edited by Neal H. Lopinot, Jack H. Ray, and Michael D. Conner, pp. 35–47. Special Publication No. 2. Center for Archaeological Research, Southwest Missouri State University, Springfield.

Lopinot, Neal H., and Jack H. Ray
1996 The Hogan Creek Site and the Problem of Side-Notched Chronology in Southwest Missouri. Paper presented at the Southeastern Archaeological Conference, Birmingham, Alabama.

2007 Trampling Experiments in the Search for the Earliest Americans. *American Antiquity* 72(4):771–782.

2010 Late Paleoindian Interaction and Exchange at the Big Eddy Site in Southwest Missouri. In *Exploring Variability in Early Holocene Hunter-Gatherer Lifeways*, edited by Stance Hurst and Jack L. Hofman, pp. 119–134. Publications in Anthropology No. 25. University of Kansas, Lawrence.

Lopinot, Neal H., and Jack H. Ray (editors)
2010 *The Paleoindian and Pre-Clovis Record at the Big Eddy Site*. Special Publication No. 6. Center for Archaeological Research, Missouri State University, Springfield.

Lopinot, Neal H., Jack H. Ray, and Michael D. Conner (editors)
1998 *The 1997 Excavations at the Big Eddy Site (23CE426) in Southwest Missouri*. Special Publication No. 2. Center for Archaeological Research, Southwest Missouri State University, Springfield.

2000 *The 1999 Excavations at the Big Eddy Site (23CE426)*. Special Publication No. 3. Center for Archaeological Research, Southwest Missouri State University, Springfield.

2005 *Regional Research and the Archaic Record at the Big Eddy Site (23CE426), Southwest Missouri*. Special Publication No. 4. Center for Archaeological Research, Southwest Missouri State University, Springfield.

Lopinot, Neal H., Jack H. Ray, and Edwin R. Hajic
1998 Conclusions and Recommendations. In *The 1997 Excavations at the Big Eddy Site (23CE426) in Southwest Missouri*, edited by Neal H. Lopinot, Jack H. Ray, and Michael D. Conner, pp. 288–307. Special Publication No. 2. Center for Archaeological Research, Southwest Missouri State University, Springfield.

MacNeish, Richard. S.
1976 Early Man in the New World. *American Scientist* 64(3):316–327.

Marshall, James O.
1972 *The Archeology of Elk City Reservoir: A Local Archeological Sequence in Southeast Kansas.* Anthropological Series No. 6. Kansas State Historical Society, Topeka.

2006 The Kansa. In *Kansas Archaeology*, edited by Robert J. Hoard and William E. Banks, pp. 219–232. University Press of Kansas, Lawrence.

Marshall, Richard A.
1956 The Delaware Bridge Cairn, 23CN13. *The Missouri Archaeologist* 18(4):20–33.

1960 The Use of Table Rock Reservoir Projectile Points in the Delineation of Cultural Complexes and Their Distribution. In *Archaeological Investigations in the Table Rock Reservoir Area, Missouri, Part 1*, by Carl H. Chapman, pp. 5–172. Department of Anthropology, University of Missouri, Columbia.

Martens, Richard E., Brad Koldehoff, Juliet E. Morrow, and Toby A. Morrow
2004 The Surface Collection from the Martens Site, 23SL222. *The Missouri Archaeologist* 65:1–43.

Martin, Paul S.
1973 The Discovery of America. *Science* 179(4077):969–974.

Martin, Terrell L.
1976 Prehistoric Settlement-Subsistence Relationships in the Fishing River Drainage, Western Missouri. *The Missouri Archaeologist* 37:1–91.

1997 The Early Woodland Period in Missouri. *The Missouri Archaeologist* 58:1–106.

Matthews, John J.
1961 *The Osages: Children of the Middle Waters*. University of Oklahoma Press, Norman.

McGee, William J.
1897 *The Siouan Indians: A Preliminary Sketch.* In Fifteenth Annual Report of the Bureau of American Ethnology for 1893–1894, pp. 153–204. Washington, D.C.

McGrath, Kerry C., Jack H. Ray, and David W. Benn
1988 *Phase II Testing of Sites 23GR539, 23GR600, and 23GR601 for the Sac River Trunk Sewer, City of Springfield, Greene County, Missouri.* Research Report No. 734. Center for Archaeological Research, Southwest Missouri State University, Springfield.

McKern, William C.
1939 The Midwestern Taxonomic Method as an Aid to Archaeological Culture Study. *American Antiquity* 4(4):301–313.

McMillan, R. Bruce
1965a The Rodgers Shelter, 23BE125; A Preliminary Report. In *Preliminary Archaeological Investigations in the Kaysinger Bluff Reservoir Area, Missouri, Part I,* edited by Carl H. Chapman, pp. 330–403. Report on file at the Archaeological Research Division, University of Missouri, Columbia.

1965b *Archaeological Reconnaissance in the Proposed Hackleman Corner Reservoir, Missouri.* Report on file at the Archaeological Research Division, University of Missouri, Columbia.

1966 Rockshelter and Cave Excavations. *Archaeological Investigations in the Stockton Reservoir Area, Southwestern Missouri: 1962–1964, Part II*. Missouri Archaeological Research Division, Department of Sociology and Anthropology, University of Missouri, Columbia.

1968 Fristoe Burial Mounds from the Prairie Border Region of Southwestern Missouri. *Plains Anthropologist* 13(39):46–62.

1971 *Biophysical Change and Cultural Adaptation at Rodgers Shelter, Missouri*. Unpublished Ph.D. dissertation, Department of Anthropology, University of Colorado, Boulder.

1976 The Dynamics of Cultural and Environmental Change at Rodgers Shelter, Missouri. In *Prehistoric Man and His Environments: A Case Study in the Ozark Highland*, edited by W. Raymond Wood and R. Bruce McMillan, pp. 211–232. Academic Press, New York.

McMillan, R. Bruce, and Walter E. Klippel
1981 Post-Glacial Environmental Change and Hunting-Gathering Societies of the Southern Prairie Peninsula. *Journal of Archaeological Science* 8(3):215–245.

McMillan, R. Bruce, and W. Raymond Wood
1976 A Summary of Environmental and Cultural Change in the Western Missouri Ozarks. In *Prehistoric Man and His Environments: A Case Study in the Ozark Highland*, edited by W. Raymond Wood and R. Bruce McMillan, pp. 235–240. Academic Press, New York.

MCX-CMAC
2007 *Results of the Inventory of NAGPRA Items from Properties in Missouri for the U.S. Army Corps of Engineers Kansas City District.* Draft report on file at the Center of Expertise for the Curation and Management of Archaeological Collections, St. Louis District, U.S. Army Corps of Engineers.

McNerney, Michael J., Mark J. Wagner, Steve Titus, James S. Ross, Charles W. Foor, Tracey Sandefur, and Wes Neal
1993 *Archaeological Resource Master Plan for the Cities of Kansas City and Liberty, Missouri*. Cultural Resources Management Report No. 206. American Resources Group, Ltd., Carbondale, Illinois.

Mehl, Maurice G.
1966 *The Grundel Mastodon*. Report of Investigations No. 35. Missouri Geological Survey and Water Resources, Rolla.

Meltzer, David J.
1983 The Antiquity of Man and the Development of American Archaeology. In *Advances in Archaeological Method and Theory, Vol. 6*, edited by Michael B. Schiffer, pp. 1–51. Academic Press, New York.

1991 On "Paradigms" and "Paradigm Bias" in Controversies Over Human Antiquity in America. In *The First Americans: Search and Research*, edited by Thomas D. Dillehay and David J. Meltzer, pp. 13–49. CRC Press, Boca Raton, Florida.

Milner, Clyde A., II
1982 *With Good Intentions: Quaker Work among the Pawnees, Otos, and Omahas in the 1870s*. University of Nebraska Press, Lincoln.

Milner, George R.
2005 Nineteenth-Century Arrow Wounds and Perceptions of Prehistoric Warfare. *American Antiquity* 70(1):144–156.

Milner, George R., Eve Anderson, and Virginia G. Smith
1991 Warfare in Late Prehistoric West-Central Illinois. *American Antiquity* 56(4):581–603.

Mooney, James
1894 *The Siouan Tribes of the East*. Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

Moore, David G. (compiler)
1986 *Proceedings of the Conference on Cherokee Prehistory*. Warren Wilson College, Swannanoa, North Carolina.

Morrow, Juliet E.
1996 *The Organization of Early Paleoindian Lithic Technology in the Confluence Region of the Mississippi, Illinois, and Missouri Rivers*. Unpublished Ph.D. dissertation, Department of Anthropology, Washington University, St. Louis.

1998 Excavations at the Martens Site, 23SL222. *Missouri Archaeological Society Quarterly* 15:4–7.

Morrow, Lynn
1981 Trader William Gilliss and Delaware Migration in Southern Missouri. *Missouri Historical Review* 75(2): 137–167.

Morse, Dan F.
1990 The Nodena Phase. In *Towns and Temples along the Mississippi*, edited by David H. Dye and Cheryl Anne Cox, pp. 69–97. University of Alabama Press, Tuscaloosa.

1991 On the Possible Origin of the Quapaws in Northeast Arkansas. In *Arkansas Before the Americans*, edited by Hester A. Davis, pp. 40–54. Research Series No. 40. Arkansas Archeological Survey, Fayetteville.

Morse, Dan F., and Phyllis A. Morse
1983 *Archaeology of the Central Mississippi Valley*. Academic Press, New York.

Mott, Mildred
1938 The Relation of Historic Indian Tribes to Archaeological Manifestations in Iowa. *Iowa Journal of History and Politics* 36:227–314.

Moulton, Gary E. (editor)
1984–2001 *Journals of the Lewis and Clark Expedition*. Twelve Volumes. University of Nebraska Press, Lincoln.

Munson, Patrick J.
1986 Black Sand and Havana Tradition Ceramic Assemblages and Culture History in the Central Illinois River Valley. In *Early Woodland Archeology*, edited by Kenneth B. Farnsworth and Thomas E. Emerson, pp. 280–300. Center for American Archeology Press, Kampsville, Illinois.

1990 Folsom Fluted Projectile Points East of the Great Plains and Their Biogeographical Correlates. *North American Archaeologist* 11(3):255–272.

Nasatir, Abraham P.
1932 St. Louis During the British Attack of 1780. In *New Spain and the Anglo-American West*, *Vol. 1,* edited by George P. Hammond, pp. 239–261. Lancaster Press, Lancaster, Pennsylvania.

1990 *Before Lewis and Clark: Documents Illustrating the History of the Missouri 1785–1804, Vol. 1*. Bison Book edition, University of Nebraska Press, Lincoln.

National Congress of American Indians
2010 Federally Recognized Indian Tribes. Electronic documents, http://www.ncai.org/Tribal-Directory.3.0.html, accessed on July 17, 2010.

Neusius, Phillip D.
1983 Projectile Points and Drills. *The Missouri Archaeologist* 44:26–32.

Nolan, David J., and Lawrence A. Conrad
1998 Chracterizing Lima Lake Oneota. *The Wisconsin Archeologist* 79(2):117–146.

Norall, Frank
1988 *Bourgmont, Explorer of the Missouri 1698–1725*. University of Nebraska Press, Lincoln.

Northern Cherokee Nation of the Old Louisiana Territory
2009 Northern Cherokee Tribe of Old Louisiana. Electronic document, www.ncolt.org.main and ncncolt.homestead.com, accessed December 1, 2009.

Novick, Andrea L., and Charles E. Cantley
1983 *Cultural Resources Survey, Harry S. Truman Dam and Reservoir Project, Vol. VIII, Archeological Test Excavations: 1976*. American Archaeology Division, Department of Anthropology, University of Missouri, Columbia.

O'Brien, Michael J.
1996 *Paradigms of the Past: The Story of Missouri Archaeology*. University of Missouri Press, Columbia.

O'Brien, Michael J., and W. Raymond Wood
1995 The Prehistoric Archeological Record. In *Holocene Human Adaptations in the Missouri Prairie-Timberlands*, by W. Raymond Wood, Michael J. O'Brien, Katherine A. Murray, and Jerome C. Rose, pp. 47–77. Research Series No. 45. Arkansas Archeological Survey, Fayetteville.

1998 *The Prehistory of Missouri*. University of Missouri Press, Columbia.

O'Brien, Patricia J.
1977 *Cultural Resources Survey of Smithville Lake, Missouri, Vol. 1*. Department of Sociology, Anthropology, and Social Work, Kansas State University, Topeka.

1978 Steed-Kisker: A Western Mississippian Settlement System. In *Mississippian Settlement Patterns*, edited by Bruce D. Smith, pp. 1–19. Academic Press, New York.

1984 *Archaeology in Kansas*. Public Education Series No. 9. Museum of Natural History, University of Kansas, Lawrence.

Orr, Kenneth G.
1946 The Archeological Situation at Spiro, Oklahoma: A Preliminary Report. *American Antiquity* 11(1):228–256.

Pangborn, Rolland E.
1962 Site Number 23BE120. Site Form, Archaeological Survey of Missouri, Columbia, Missouri.

1963 Site Number 23DA235. Site Form, Archaeological Survey of Missouri, Columbia, Missouri.

1964a Site Number 23CE139. Site Form, Archaeological Survey of Missouri, Columbia, Missouri.

1964b Site Number 23CE141. Site Form, Archaeological Survey of Missouri, Columbia, Missouri.

1964c Site Number 23PO312. Site Form, Archaeological Survey of Missouri, Columbia, Missouri.

1965a A Historical Burial Mound in Stockton Reservoir, Southwestern Missouri. *Plains Anthropologist* 10(27):51.

1965b Campsite and Burial, 23HE145. In *Preliminary Archaeological Investigations in the Kaysinger Bluff Reservoir Area, Missouri, Part I,* edited by Carl H. Chapman, pp. 295–300. Report on file at the Archaeological Research Division, University of Missouri, Columbia.

1966 The Eureka Mound, 23DA–250, Illustrating Caddoan Contacts in the Stockton Reservoir Area, Southwestern Missouri. *Plains Anthropologist* 11(32):167.

Pangborn, Rolland E., and R. Bruce McMillan
1962 Site Number 23CE135. Site Form, Archaeological Survey of Missouri, Columbia, Missouri.

Pangborn, Rolland E., H. Trawick Ward, and W. Raymond Wood
1971 Flycatcher Village: A Non-Pottery Site in the Stockton Reservoir, Missouri. *Plains Anthropologist* 16(51):60–73.

Parks, Douglas R., and Robert L. Rankin
2001 Siouan Languages. In *Handbook of North American Indians*, Vol. *13, Part 1, Plains*, edited by Raymond J. DeMallie, pp. 94–114. Smithsonian Institution, Washington, D.C.

Parmalee, Paul W., R. Bruce McMillan, and Frances B. King
1976 Changing Subsistence Patterns at Rodgers Shelter. In *Prehistoric Man and His Environments: A Case Study in the Ozark Highland*, edited by W. Raymond Wood and R. Bruce McMillan, pp. 141–161. Academic Press, New York.

Pauketat, Timothy R.
2004 *Ancient Cahokia and the Mississippians*. Cambridge University Press, Cambridge, United Kingdom.

Pauketat, Timothy R., and Thomas E. Emerson
1997 Introduction. In *Cahokia Domination and Ideology in the Mississippian World*, edited by Timothy R. Pauketat and Thomas E. Emerson, pp. 1−29. University of Nebraska Press, Lincoln.

Pease, Theodore C., and Raymond C. Werner (editors)
1934 *The French Foundations, 1680–1693*. Collections of the Illinois State Historical Library No. 23, French Series 1. Illinois State Historical Library, Springfield.

Perttula, Timothy K.
1983 The Loftin Site and Phase in Western Ozark Prehistory. *The Missouri Archaeologist* 44:40–62.

1989 The Late Prehistoric Period in the Western Ozarks of Southwest Missouri. In *Contributions to Spiro Archaeology: Mound Centers and Regional Perspectives,* edited by J. Daniel Rogers, Don G. Wyckoff, and Dennis A. Peterson, pp. 117–127. Studies in Oklahoma's Past No. 16. Oklahoma Archeological Survey, Norman.

1992 *The Caddo Nation: Archaeological and Ethnohistoric Perspectives*. University of Texas Press, Austin.

2002 Social Changes among the Caddo Indians in the Sixteenth and Seventeenth Centuries. In *The Transformation of the Southeastern Indians*, edited by Robbie Ethridge and Charles Hudson, pp. 249–269. University Press of Mississippi, Jackson.

Phillips, Philip, and James A. Brown
1978 *Pre-Columbian Shell Engravings from the Craig Mound at Spiro, Oklahoma, Vol. 1*. Peabody Museum Press, Harvard University, Cambridge.

Piazza, Theresa J.
1992 The Kaskaskia Manuscripts: French Traders in the Missouri Valley before Lewis and Clark. *The Missouri Archaeologist* 53:1–42.

Pollack, David
2004 *Caborn-Welborn: Constructing a New Society after the Angel Chiefdom Collapse.* The University of Alabama Press, Tuscaloosa.

Porter, Stephen C.
1986 Pattern and Forcing of Northern Hemisphere Glacier Variations during the Last Millennium. *Quaternary Research* 26(1):27–48.

Powell, Gina S.
2001 Archaeobotanical Remains from the Huntsville Mound Site (3MA22). In *National Register of Historic Places Testing of 3MA22 and 3MA322*, by Robert H. Lafferty III, Michael C. Sierzchula, and Gina S. Powell, pp. 67–81. Report No. 2001–4. Mid-Continental Research Associates, Lowell, Arkansas.

2009 Plant Remains from 23JA266. In *Excavation at the Sibley Bluff Top (23JA266): A Multiple Component Site at the Fort Osage National Landmark, Jackson County, Missouri*, by John K. Peterson, pp. 221–279. Jackson County Parks and Recreation, Kansas City, Missouri.

Powell, Gina S., and Neal H. Lopinot
2005 Archaeobotany. In *Regional Research and the Archaic Record at the Big Eddy Site (23CE426), Southwest Missouri*, edited by Neal H. Lopinot, Jack H. Ray, and Michael D. Conner, pp. 324–351. Special Publication No. 4. Center for Archaeological Research, Southwest Missouri State University, Springfield.

du Pratz, M. Le Page
1774 *The History of Louisiana*. English edition. T. Becket, London (1972 reprint, Claitor's Publishing Division, Baton Rouge, Louisiana).

Purrington, Burton L.
1971 *The Prehistory of Delaware County, Oklahoma: Cultural Continuity and Change on the Western Ozark Periphery*. Unpublished Ph.D. dissertation, Department of Anthropology, University of Wisconsin, Madison.

Quimby, George I.
1966 *Indian Cultures and European Trade Goods*. University of Wisconsin Press, Madison.

Radin, Paul
1948 Winnebago Hero Cycles: A Study in Aboriginal Literature. *International Journal of American Linguistics* 14 (Memoir I, suppl. 3). Baltimore.

Ramenofsky, Ann F.
1990 Loss of Innocence: Explanations of Differential Persistence in the Sixteenth-Century Southeast. In *Columbian Consequences, Vol. 2, Archaeological and Historical Perspectives in the Spanish Borderlands East*, edited by David H. Thomas, pp. 31–48. Smithsonian Institution Press, Washington, D.C.

Rankin, Robert L.
1982 A Quapaw Vocabulary. *Kansas Working Papers in Linguistics* 7:125–152.

1988 Quapaw: Genetic and Area Affiliations. In *In Honor of Mary Haas: from the Haas Festival Conference on Native American Linguistics*, edited by William Shipley, pp. 629–650. Mouton de Gruyter, Berlin.

1993 Language Affiliations of Some de Soto Place Names in Arkansas. In *The Expedition of Hernando de Soto West of the Mississippi, 1541–1543*, edited by Gloria A. Young and Michael P. Hoffman, pp. 210–221. University of Arkansas Press, Fayetteville.

1997 Oneota and Historical Linguistics. Paper presented at the 1997 Oneota Conference, University of Iowa, Iowa City.

Ray, Jack H.
1988 Salvage of a Late Woodland Hearth. *Missouri Archaeological Society Quarterly* 5(4):4–7.

1990 *An Intensive Cultural Resources Survey for the Replacement of Bridge No. 2811 Over Pickerel Creek, Greene County, Missouri.* Research Report No. 823. Center for Archaeological Research, Southwest Missouri State University, Springfield.

1992 *Phase II Test Excavations at Site 23SN775, 23SN776, 23SN777 in Hobbs Hollow, Southern Stone County, Missouri*. Research Report No. 886. Center for Archaeological Research, Southwest Missouri State University, Springfield.

1993 *Additional Investigations at the Buried Beneath Site (23GR539) and Adjacent Areas in the South Dry Sac Valley, Greene County, Missouri*. Research Report No. 910. Center for Archaeological Research, Southwest Missouri State University, Springfield.

1994a *Archaeological Investigations at Little Indian Rockshelter (23SN921), Southern Stone County, Missouri*. Research Report No. 965. Center for Archaeological Research, Southwest Missouri State University, Springfield.

1994b *Archaeological Investigations at Great Spirit Rockshelter (23SN866) in Dogwood Canyon, Southern Stone County, Missouri*. Research Report No. 923. Center for Archaeological Research, Southwest Missouri State University, Springfield.

1995 *An Archaeological Investigation at John Paul Cave (23CN758) in Northern Christian County, Missouri*. Research Report No. 977. Center for Archaeological Research, Southwest Missouri State University, Springfield.

1996 Preservation Measures and Limited Test Excavations at the Pineville Site. *Missouri Archaeological Society Quarterly* 13(3):12–19.

1997 *Additional Excavations at John Paul Cave (23CN758), Christian County, Missouri*. Research Report No. 1022. Center for Archaeological Research, Southwest Missouri State University, Springfield.

1998a Chert Resource Availability and Utilization. In *The 1997 Excavations at the Big Eddy Site (23CE426) in Southwest Missouri*, edited by Neal H. Lopinot, Jack H. Ray, and Michael D. Conner, pp. 221–265. Special Publication No. 2. Center for Archaeological Research, Southwest Missouri State University, Springfield.

1998b Cultural Components. In *The 1997 Excavations at the Big Eddy Site (23CE426) in Southwest Missouri*, edited by Neal H. Lopinot, Jack H. Ray, and Michael D. Conner, pp. 111–220. Special Publication No. 2. Center for Archaeological Research, Southwest Missouri State University, Springfield.

1999 Lithic Artifacts. In *Neosho Tradition Occupation in Lawrence County, Missouri*, edited by Michael D. Conner, pp. 36–71. *The Missouri Archaeologist* 60.

2000 Nonexcavated Collections from Big Eddy and Nearby Sites. In *The 1999 Excavations at the Big Eddy Site (23CE426)*, edited by Neal H. Lopinot, Jack H. Ray, and Michael D. Conner, pp. 37–68. Special Publication No. 3. Center for Archaeological Research, Southwest Missouri State University, Springfield.

2005 Middle Archaic. In *Regional Research and the Archaic Record at the Big Eddy Site (23CE426), Southwest Missouri*, edited by Neal H. Lopinot, Jack H. Ray, and Michael D. Conner, pp. 214–222. Special Publication No. 4. Center for Archaeological Research, Southwest Missouri State University, Springfield.

2006a Henson Shelter Excavations and Lithics. In *Archaeological Investigations at Six Sheltered Sites in Southern McDonald County, Missouri*, edited by Jack H. Ray and Michael D. Conner, pp. 88–118. Special Publication No. 5. Center for Archaeological Research, Missouri State University, Springfield.

2006b Henson Cave Excavations and Lithics. In *Archaeological Investigations at Six Sheltered Sites in Southern McDonald County, Missouri*, edited by Jack H. Ray and Michael D. Conner, pp. 56–87. Special Publication No. 5. Center for Archaeological Research, Missouri State University, Springfield.

2006c Chert Availability and Use. In *Archaeological Investigations at Six Sheltered Sites in Southern McDonald County, Missouri*, edited by Jack H. Ray and Michael D. Conner, pp. 119–136. Special Publication No. 5. Center for Archaeological Research, Missouri State University, Springfield.

2007a *Ozarks Chipped-Stone Resources: A Guide to the Identification, Distribution, and Prehistoric Use of Cherts and Other Siliceous Raw Materials*. Special Publications No. 8. Missouri Archaeological Society, Springfield.

2007b Salvage of a Middle Woodland Burial at the Bryan Jones Site (23CE235, Area B). Unpublished manuscript on file at the Center for Archaeological Research, Missouri State University.

2010 Quarries and Workshops in the Ozarks Province. Unpublished manuscript on file at the Center for Archaeological Research, Missouri State University, Springfield.

Ray, Jack H., and David W. Benn
1989 *A Survey of Sheltered Sites in Flat, Bull, and Swan Creek Drainage Basins in Southwest Missouri*. Research Report No. 744. Center for Archaeological Research, Southwest Missouri State University, Springfield.

1992 *Test Excavations at Selected Sheltered Sites in Flat, Bull, and Swan Creek Drainage Basins in Southwest Missouri*. Research Report No. 805. Center for Archaeological Research, Southwest Missouri State University, Springfield.

Ray, Jack H., and Michael D. Conner (editors)
2006 *Archaeological Investigations at Six Sheltered Sites in McDonald County, Missouri*. Special Publication No. 5. Center for Archaeological Research, Missouri State University, Springfield.

Ray, Jack H., and Neal H. Lopinot
2005a Cutbank Survey. In *Regional Research and the Archaic Record at the Big Eddy Site (23CE426), Southwest Missouri*, edited by Neal H. Lopinot, Jack H. Ray, and Michael D. Conner, pp. 38–102. Special Publication No. 4. Center for Archaeological Research, Southwest Missouri State University, Springfield.

2005b Late Archaic. In *Regional Research and the Archaic Record at the Big Eddy Site (23CE426), Southwest Missouri*, edited by Neal H. Lopinot, Jack H. Ray, and Michael D. Conner, pp. 156–213. Special Publication No. 4. Center for Archaeological Research, Southwest Missouri State University, Springfield.

2008 Late Prehistoric Culture History for Southwest Missouri. *The Missouri Archaeologist* 69:57–102.

Ray, Jack H., Neal H. Lopinot, and Edwin R. Hajic
2009 Archaic Prehistory of the Western Ozarks of Southwest Missouri. In *Archaic Societies: Diversity and Complexity across the Midcontinent,* edited by Thomas E. Emerson, Dale L. McElrath, and Andrew C. Fortier, pp. 155–197. State University of New York Press, Albany.

Ray, Jack H., Neal H. Lopinot, Edwin R. Hajic, and Rolfe D. Mandel
1998 The Big Eddy Site: A Multicomponent Paleoindian Site on the Ozark Border, Southwest Missouri. *Plains Anthropologist* 43(163):73–81.

2000 Pre-Clovis-Age Artifacts from the Big Eddy Site. *Current Research in the Pleistocene* 17:68–71.

Ray, Jack H., Neal H. Lopinot, and A. Holly Jones
2006 Summary and Conclusions. In *Archaeological Investigations at Six Sheltered Sites in McDonald County, Missouri*, edited by Jack H. Ray and Michael D. Conner, pp. 201–219. Special Publication No. 5. Center for Archaeological Research, Missouri State University, Springfield.

Reagan, Michael J.
1981 Paleo-Indian Remains from Northwest Missouri. *The Missouri Archaeologist* 42:17–26.

Reagan, Michael J., Ralph M. Rowlett, Ervan G. Garrison, Wakefield Dort, Jr., Vaughn M. Bryant, Jr., and Chris J. Johannsen
1978 Flake Tools Stratified Below Paleo-Indian Artifacts. *Science* 200(4347):1272–1275.

Reeder, Robert L.
1980 The Sohn Site: A Lowland Nebo Hill Complex Campsite. In *Archaic Prehistory on the Prairie-Plains Border*, edited by Alfred E. Johnson, pp. 55–66. Publications in Anthropology No. 12. University of Kansas, Lawrence.

1981 Nebo Hill Occupation in a Riverine Environment. *The Missouri Archaeologist* 42:27–42.

1983 House Excavations [The Loftin Component]. *The Missouri Archaeologist* 44:13–26.

2000 The Maramec Spring Phase. In *Late Woodland Societies: Tradition and Transformation across the Midcontinent*, edited by Thomas E. Emerson, Dale L. McElrath, and Andrew C. Fortier, pp. 187–209. University of Nebraska Press, Lincoln.

Rees, Mark A., Gina S. Powell, and Neal H. Lopinot
2000 *Delaware Town Archaeological Survey and Site Assessment in the James River Valley of Christian County, Missouri.* Research Report No. 1081/1109. Center for Archaeological Research, Southwest Missouri State University, Springfield.

2002 The Delaware Settlement in the James River Valley. *Journal of the White River Valley Historical Society* 41(2):4–10, 17–27.

2003 The Search for Delaware Town: Results of the 1999 and 2000 CAR-SMSU Field Schools. *Missouri Archaeological Society Quarterly* 20(1):4–10.

Reid, Kenneth C.
1980 Upper Pennsylvanian Cherts of the Forest City Basin: Missourian Stage. *Plains Anthropologist* 25(88):121–134.

1983 The Nebo Hill Phase: Late Archaic Prehistory in the Lower Missouri Valley. In *Archaic Hunters and Gatherers in the American Midwest*, edited by James L. Phillips and James A. Brown, pp. 11–40. Academic Press, New York.

1984 *Nebo Hill and Late Archaic Prehistory on the Southern Prairie Peninsula*. Publications in Anthropology No. 15. University of Kansas, Lawrence.

Riley, Thomas J.
1967 *Preliminary Salvage Work in the Smithville Reservoir Area: 1967*. Department of Anthropology, University of Missouri, Columbia.

Ritterbush, Lauren W.
2006 Late Prehistoric Oneota in the Central Plains. In *Kansas Archaeology*, edited by Robert J. Hoard and William E. Banks, pp. 151–164. University of Kansas Press, Lawrence.

Roberts, Timothy G., and Christy S. Rickers
1996 Historical Iowa Settlement in the Grand River Basin of Missouri and Iowa. *The Missouri Archaeologist* 57:1–36.

Robinson, Christine K., and Marvin Kay
1982 Phillips Spring Excavation and Archaeology. In *Holocene Adaptations within the Lower Pomme de Terre River Valley, Missouri, Vol. 3*, edited by Marvin Kay, pp. 623–682. Illinois State Museum, Springfield.

Rohrbaugh, Charles L.
1984 Arkansas Valley Caddoan: Fort Coffee and Neosho Foci. In *Prehistory of Oklahoma*, edited by Robert E. Bell, pp. 265–285. Academic Press, Orlando.

Roper, Donna C.
1993 The Prehistory of the Ozark-Prairie Border: A Synthesis, 1983. In *Prehistoric Cultural Continuity in the Missouri Ozarks, The Truman Reservoir Mitigation Project: Artifact Descriptions and Analyses, Vol. 1*, by Donna C. Roper, pp. 647–688. American Archaeology Division, University of Missouri, Columbia.

2006 The Central Plains Tradition. In *Kansas Archaeology*, edited by Robert J. Hoard and William E. Banks, pp. 105–132. University of Kansas Press, Lawrence.

Rowlett, Ralph M.
1984 Analysis of Shriver Site Artifacts by Thermoluminescence. *Missouri Archaeological Society Quarterly* 1(4):20–22.

Royce, Charles C. (compiler)
1899 *Indian Land Cessions in the United States*. In 18th Annual Report, Bureau of American Ethnology, pp. 521–997. Washington.

Sabo, George, III, and Ann M. Early
1990 Prehistoric Culture History. In *Human Adaptation in the Ozark and Ouachita Mountains,* by George Sabo III, Ann M. Early, Jerome C. Rose, Barbara A. Burnett, Louis Vogele, Jr., and James P. Harcourt, pp. 34–120. Research Series No. 31. Arkansas Archeological Survey, Fayetteville, Arkansas.

Sandstrom, Carl B., and Jack H. Ray
2004 *A Point Identification Guide for Southwest Missouri*. Ozarks Chapter of the Missouri Archaeological Society, Springfield.

Schmits, Larry J.
1982 The May Brook Phase. *The Missouri Archaeologist* 43:1–66.

Schmits, Larry J., and B. C. Bailey
1989 Prehistoric Chronology and Settlement Subsistence Patterns in the Little Blue Valley, Western Missouri. In *Prehistory of the Little Blue River Valley, Western Missouri: Archaeological Investigations at Blue Springs Lake*, edited by Larry J. Schmits, pp. 221–252. Environmental Systems Analysis, Kansas City.

Schmits, Larry J., and Thomas P. Reust
1981 Phase II Excavations at the Cold Clay Site (23JA155). In *Little Blue Prehistory: Archaeological Investigations at Blue Springs and Longview Lakes, Jackson County,*

Missouri, edited by Larry J. Schmits, pp. 279–310. Soil Systems, Inc., Earth Systems Division.

Scholtz, Sandra C.
1975 *Prehistoric Plies: A Structural and Comparative Analysis of Cordage, Netting, Basketry, and Fabric from Ozark Bluff Shelters*. Research Series No. 9. Arkansas Archeological Survey, Fayetteville.

Schroedl, Gerald F.
2000 Cherokee Ethnohistory and Archaeology from 1540 to1838. In *Indians of the Greater Southeast: Historical Archaeology and Ethnohistory*, edited by Bonnie G. McEwan, pp. 204–241. University Press of Florida, Gainesville.

2001 Cherokee Archaeology since the 1970s. In *Archaeology of the Appalachian Highlands,* edited by Lynne P. Sullivan and Susan C. Rezzano, pp. 278–297. The University of Tennessee Press, Knoxville.

Schweitzer, Marjorie M.
2001 Otoe and Missouria. In *Handbook of North American Indians*, *Vol. 13, Part 1, Plains*, edited by Raymond J. DeMallie, pp. 447–461. Smithsonian Institution, Washington, D.C.

Shea, John G.
1852 *Discovery and Exploration of the Mississippi Valley with the Original Narratives of Marquette, Allouez, Membré, Hennepin, and Anastase Douay*. Redfield, Clinton Hall, New York.

1861 *Early Voyages Up and Down the Mississippi, by Cavelier, St. Cosme, Le Sueur, Gravier, and Guignas.* Joel Munsell, Albany, New York.

Shippee, J. Mett
1948 Nebo Hill, a Lithic Complex in Western Missouri. *American Antiquity* 14(1):29–32.

1964 *Archaeological Remains in the Area of Kansas City: Paleo-Indians and the Archaic Period*. Research Series No. 2. Missouri Archaeological Society, Columbia.

1967 Belated Archaeological Investigations on King's Hill, St. Joseph, Missouri. *Museum Graphic* 19(1):5–9.

1972 Archeological Remains in the Kansas City Area: The Mississippian Occupation. Research Series 9. Missouri Archaeological Society, Columbia.

Skinner, Alanson
1915 *Societies of the Iowa, Kansa, and Ponca Indians*. Anthropological Papers No. 11(9). American Museum of Natural History, New York.

Soikkeli, Laura M.
1999 William Clark's 1814 Map of Central Missouri. *Missouri Archaeological Society Quarterly* 16(1):4–12).

Springer, James W., and Stanley R. Witkowski
1982 Siouan Historical Linguistics and Oneota Archaeology. In *Oneota Studies*, edited by Guy E. Gibbon, pp. 69–83. Publications in Anthropology No. 1. University of Minnesota, Minneapolis.

Struever, Stuart
1964 The Hopewell Interaction Sphere in Riverine—Western Great Lakes Culture History. In *Hopewellian Studies*, edited by Joseph R. Caldwell and Robert L. Hall, pp. 85-106. Scientific Papers Vol. 12. Illinois State Museum, Springfield.

Sturdevant, Craig
1986 *Cultural Resource Investigations Phase III Mitigation 23JP164 Jasper County, Missouri*. Environmental Research Center, Jefferson City.

Sudderth, W. Edward
1965 The Harrison Shelter, 23SR117. In *Preliminary Archaeological Investigations in the Kaysinger Bluff Reservoir Area, Missouri, Part I,* edited by Carl H. Chapman, pp. 503–530. Report on file at the Archaeological Research Division, University of Missouri, Columbia.

Swanton, John R.
1923 New Light on the Early History of the Siouan Peoples. *Journal of the Washington Academy of Sciences* 13(3):33–43.

1943 Siouan Tribes and the Ohio Valley. *American Anthropologist* 45(1):49–66.

Temple, Wayne C.
1958 *Historic Tribes: Indian Villages of the Illinois Country*. Scientific Papers Vol. 2(2). Illinois State Museum, Springfield.

Thomas, Cyrus
1891 *Catalogue of Prehistoric Works East of the Rocky Mountains*. Bureau of Ethnology, Smithsonian Institution, Washington, D.C.

Thomas, Larissa A., and Jack H. Ray
2002 Exchange at the Dahlman Site (23LA259), a Late Prehistoric Neosho Phase Settlement in Southwest Missouri. *Plains Anthropologist* 47(182):205–227.

Thwaites, Reuben G. (editor)
1906 *Travels in the Interior of North America, 1832–1834*, by Prince Maximilian of Wied, Vols. 22–25 of *Early Western Travels, 1748–1846*. Arthur P. Clark, Cleveland, Ohio.

Trowbridge, Charles C.
1938 *Meerarmeer Traditions*. Occasional Contributions No. 9. Museum of Anthropology, University of Michigan, Ann Arbor.

Tucker, Sara Jones, compiler
1942 *Indian Villages of the Illinois Country*. Scientific Papers Vol. 2(1). Illinois State Museum, Springfield.

Turner, Betty J., and David W. Benn
1986 Analysis of Chipped Stone Artifacts from the Patterson Spring Site (23CN64), Christian County, Missouri. Unpublished manuscript on file at the Center for Archaeological Research, Southwest Missouri State University, Springfield.

Unrau, William E.
1971 *The Kansa Indians: A History of the Wind People, 1673–1873*. University of Oklahoma Press, Norman.

Vehik, Susan C.
1985 Late Prehistoric Settlement Strategy and Exploitation of Florence-A Chert. In *Lithic Resource Procurement: Proceedings from the Second Conference on Prehistoric Chert Exploitation*, edited by Susan C. Vehik, pp. 81–98. Occasional Paper No. 4. Center for Archeological Investigations, Southern Illinois University, Carbondale.

1993 Dhegiha Origins and Plains Archaeology. *Plains Anthropologist* 38(146):231–252.

Villers du Terrage, Baron Marc de
1925 *La Decouverte du Missouri et L'Histoire du Fort d'Orleans (1673–1728)*. Librairie Ancienne Honoré Champion, Libraire de la Société le L'Histoire de France, Paris. [Translated copy by Harriet Hopkins in the Historical Society of Missouri Library, Columbia.]

Wedel, Mildred M.
1972 Claude-Charles Dutisné: A Review of His 1719 Journeys, Part I. *Great Plains Journal* 12(fall):4–25.

1973 Claude-Charles Dutisné: A Review of His 1719 Journeys, Part II. *Great Plains Journal* 12(spring):147–173.

2001 Iowa. In *Handbook of North American Indians*, vol. 13, part 1, *Plains*, edited by Raymond J. DeMallie, pp. 432–446. Smithsonian Institution, Washington, D.C.

Wedel, Waldo R.
1943 *Archeological Investigations in Platte and Clay Counties, Missouri*. Bulletin No. 183. United States National Museum, Washington, D.C.

1959 *An Introduction to Kansas Archeology*. Bureau of American Ethnology, Bulletin 174. Government Printing Office, Washington, D.C.

Wesson, Cameron B., and Mark A. Rees
2002 Protohistory and Archaeology. In *Between Contacts and Colonies: Archaeological Perspectives on the Protohistoric Southeast*, edited by Cameron B. Wesson and Mark A. Rees, pp. 1–11. University of Alabama Press, Tuscaloosa.

Weston, Timothy, and William B. Lees
1994 History and Status of an Earthwork Known as "Neodesha Fort," Kansas. *Plains Anthropologist* 39(150):415–428.

Whitman, William
1937 *The Otoe*. Columbia University Press, New York.

Winger, Otho
1939 *The Potawatomi Indians*. Elgin Press, Elgin, Illinois.

Winsor, Justin
1895 *The Mississippi Basin: The Struggle in American between England and France 1697–1763*. Houghton, Mifflin and Company, Boston.

Witty, Thomas A., Jr.
1967 The Pomona Focus. Kansas Anthropological Association Newsletter 12(9):1–5.

1981 The Pomona Focus, Known and Unknown. *The Missouri Archaeologist* 42:77–83.

1999 *Cuesta Phase Sites of the Big Hill Lake Area, Southeast Kansas*. Contract Archeology Publications No. 19. Kansas State Historical Society, Topeka.

Wood, Martha M.
1936 *Early Roads in Missouri*. Unpublished Masters thesis, Department of History, University of Missouri, Columbia.

Wood, W. Raymond
1961 The Pomme de Terre Reservoir in Western Missouri Prehistory. *The Missouri Archaeologist* 23:1–132.

1965a *Archaeological Investigations in the Stockton Reservoir Area, Southwestern Missouri: 1962–1964, Part I*. Missouri Archaeological Research Division, Department of Sociology and Anthropology, University of Missouri, Columbia.

1965b Mound and Cairn Excavations. In *Preliminary Archaeological Investigations in the Kaysinger Bluff Reservoir Area, Missouri, Part I*, edited by Carl H. Chapman, pp. 1–158. Report on file at the Archaeological Research Division, University of Missouri, Columbia.

1965c Historic Sites. In *Preliminary Archaeological Investigations in the Kaysinger Bluff Reservoir Area, Missouri, Part I*, edited by Carl H. Chapman, pp. 161–170. Report on file at the Archaeological Research Division, University of Missouri, Columbia.

1966 *Archaeological Investigations in the Stockton Reservoir Area, Western Missouri: 1965 Field Season.* National Park Service, Midwest Archeological Center, Lincoln, Nebraska.

1967 The Fristoe Burial Complex of Southwestern Missouri. *The Missouri Archaeologist* 29.

1968 Mississippian Hunting and Butchering Patterns: Bone from the Vista Shelter, 23SR–20, Missouri. *American Antiquity* 33(2):170–179.

1973 Cultural Sequence at the Old Fort, Saline County, Missouri. *American Antiquity* 38(1):101–111.

1976 Archaeological Investigations at the Pomme de Terre Springs. In *Prehistoric Man and His Environments: A Case Study in the Ozark Highland*, edited by W. Raymond Wood and R. Bruce McMillan, pp. 97–107. Academic Press, New York.

1980 Plains Trade in Prehistoric and Protohistoric Intertribal Relations. I: *Anthropology on the Great Plains*, edited by W. Raymond Wood and Margot Liberty, pp. 98–109. University of Nebraska Press, Lincoln.

1983a The Loftin Component, 23SN42. *The Missouri Archaeologist* 44:1–74.

1983b *An Atlas of Early Maps of the Midwest*. Scientific Papers Vol. 18. Illinois State Museum, Springfield.

1985 The Colline Burial 23PO305. *Missouri Archaeological Society Quarterly* 2(4):18–20.

1987 The Barren Cairn: 23BE137. *Missouri Archaeological Society Quarterly* 4(3):4–5, 22.

1992 Petit Cote Cairn, 23PO301. *Missouri Archaeological Society Quarterly* 9(1):12–14.

1993 *Joseph N. Nicollet's 1839 Manuscript Maps of the Missouri River and Upper Mississippi Basin*. Scientific Papers Vol. 24. Illinois State Museum, Springfield.

Wood, W. Raymond, and Sharon Brock
1984 The Bolivar Burial Complex of Southwestern Missouri. *The Missouri Archaeologist* 45.

2000 Six Late Prehistoric Burial Mounds in Southwestern Missouri. *The Missouri Archaeologist* 61:1–69.

Wood, W. Raymond, and Rolland E. Pangborn
1968a The Eureka and Comstock Mounds, Southwestern Missouri. *Plains Anthropologist* 13(39):1–17.

1968b Small Shelter Sites in and near the Stockton Reservoir, Missouri, I: Mache Hollow Shelter. *Missouri Archaeological Society Newsletter* 226:8–12.

Wood, W. Raymond, and R. Bruce McMillan (editors)
1976 *Prehistoric Man and His Environments: A Case Study in the Ozark Highland.* Academic Press, New York.

Wright, Christopher A.
1980 *Archaeological Investigations in the Proposed Blue Springs Lake Area, Jackson County, Missouri: The Early Woodland Period*. Museum of Anthropology, University of Kansas, Lawrence.

Wright, Christopher A., and Larry J. Schmits
1982 *Cultural Resources Management Plan for Smithville Lake, Missouri*. Environmental Systems Analysis, Inc., Kansas City.

Wyckoff, Don G.
1964 The Jug Hill Site, My–18, Mayes County, Oklahoma. *Bulletin of the Oklahoma Anthropological Society* 12:1–53.

1970 *The Horton Site Revisited: 1967 Excavations at Sq–11, Sequoyah County, Oklahoma*. Studies in Oklahoma's Past No. 1. Oklahoma Archeological Survey, Norman.

1980 *Caddoan Adaptive Strategies in the Arkansas Basin, Eastern Oklahoma*. Unpublished Ph.D. dissertation, Department of Anthropology, Washington State University, Pullman.

Wyckoff, Don G., Phillip Robison, and Thomas P. Barr
1963 *The Archaeological Resources of the Markham Ferry Reservoir Area, Mayes County, Oklahoma*. General Survey Report No. 1. Oklahoma River Basin Survey, University of Oklahoma, Norman.

Yelton, Jeffrey K.
1985 The Depopulation of the Osage and Missouri Tribes. In *Osage and Missouri Indian Life Cultural Change: 1675–1825, Part 1*, edited by Carl H. Chapman, pp. 129–145. Final Performance Report to the National Endowment for the Humanities, Research Grant RA–20296, University of Missouri, Columbia.

1991 *Protohistoric Oneota Pottery of the Lower Missouri River Valley: A Functional Perspective*. Unpublished Ph.D. dissertation, Department of Anthropology, University of Missouri, Columbia.

1998 A Different View of Oneota Taxonomy and Origins in the Lower Missouri Valley. *The Wisconsin Archeologist* 79(2):268–283.

Zeidler, James A., and Richard Edging
2009 Restoring a Presence: Steps Towards a Co-Future between the Dhegiha Tribes and the U.S. Army in Central Missouri. Paper presented at the 74th Annual Meeting of the Society for American Archaeology, Atlanta, Georgia.

Appendix A

NAGPRA Items from Pomme de Terre Reservoir

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Lytle Cairn	23HI18		1	Burial type was not noted but burial contained remains representing a minimum of 3 individuals. Possible Associated Funerary Objects recovered from the general cairn fill consisted of 215 flakes/debitage, 14 projectile points/bifaces and fragments (1 Fresno, 1 Rice Side Notched, 1 Huffaker fragment, and 11 indeterminate), 2 miscellaneous stones, 1 piece of hematite, 250 faunal bone fragments, 2 pieces of shell, and 4 conch shell beads and bead fragments.	Prehistoric	Wood 1961
Mount India Cairn and Murelle Mound Group	23HI30		2	Human remains representing 1 individual from Burial 1 were recovered from looters' backdirt piles or donated by private collectors so no burial type was known. Burial 2 human remains were also recovered from recovered from looters' backdirt piles or donated by private collectors and contained remains representing a minimum of 9 individuals. Possible Associated Funerary Objects included 1 soil sample from the medullary cavity of a long bone. Other Possible Associated Funerary Objects recovered from the Mount India Cairn and Murelle Mound Group consisted of 3 faunal bone fragments.	Woodland	Bray 1963b; Wood 1961
Mount India Cairn and Murelle Mound Group	23HI30	Mound 2	3	Donations from private collections with human remains discovered in the same bags as the faunal bone collections were recovered from looters' backdirt piles for three different individuals. These collections are from all the tumuli at the site, so the exact proveniences are not known for the three different burials. Possible Associated Funerary Objects from another burial and found in with the human remains donated by a private citizen included 1 hafted biface, 1 biface fragment, 1 piece of hematite, 27 faunal bone fragments, and 6 shell fragments. Additional objects found in the same bag as the human remains from unknown proveniences included 17 bifaces and biface fragments, 1 uniface, 1 core, 1 miscellaneous stone, 379 flakes/debitage, 2 pill vials of hematite, 3 ceramic sherds, 27 shell-disk beads, 17 *Anculosa* beads, 55 shell fragments, 116 faunal bone fragments.	Woodland/ Mississippian	Bray 1963b; Wood 1961

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Other Possible Associated Funerary Objects labeled with 23HI30–A, 23HI30–C, 23HI30–G, Turner House Fire, and Feature 3 may be from different mounds within the mound complex, but this cannot be confirmed. They included 6 projectile points (1 Rice Side Notched, 1 Fresno, 1 Harrell/Cahokia, 2 Scallorn, and 1 indeterminate point with broken tip), 2 bifaces, 37 flakes/debitage, and 1 miscellaneous stone. Other Possible Associated Funerary Objects found in Mound 2 of the Mount India Cairn and Murelle Mound Group included 120 faunal bone fragments, 3 biface fragments, and 2 flakes/debitage.		
Unnamed	23HI87		1	Burial contained cranial and dental remains which were burned. Remains curated under the name of "Turner House Fire." Possible Associated Funerary Objects included 9 faunal bone fragments. Materials curated under the name of "Turner House Fire."	Woodland	Anonymous n.d.
Holbert Bridge Mound	23HI135	Feature 1	1	Burial 1 contained remains of 1 adult. Possible Associated Funerary Objects included 40 flakes/debitage.. Objects recovered from the general mound fill consisted of 25 projectile points (1 Reeds Spring, 13 Afton, and 11 indeterminate and fragments), 8 biface fragments, 2 scrapers, 1 uniface, 1 core, 17 flakes/debitage, 2 miscellaneous stones, 1 bone ring or bracelet, and 1 soil sample	Late Archaic	Wood 1961
Cave Knob Mound	23HI149	Feature 1	2	Feature 1 contained burials 1, 3 and 4. This can't be confirmed due to the lack of available records. Only postcranial remains of 2 individuals were found and, if this is the case, then the two individuals may represent Burials 1, 3, and/or 4. One humerus shaft fragment from 1 adult was also located and was labeled as "F–1 bundle burial, B1 or B3" so it wasn't clear if it was from Burial 1 or Burial 3. Burial 3 contained a minimum of 4 individuals. Burial 4 contained remains of 1 subadult. Broadcast burials were also noted.	Woodland	Wood 1961

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Possible Associated Funerary Objects included 1 soil sample from the medullary cavity of a long bone from either Burial 1 or 3. Burial 3 objects included 1 soil sample from the medullary cavity of a long bone. Burial 4 objects included 1 soil sample from the medullary cavity of a long bone. Objects from the broadcast burials included 3 faunal bone fragments. Other Possible Funerary Objects from the general mound fill consisted of 2 Rice Side Notched projectile points, 2 projectile point fragments, 1 unusually shaped point or drill, 8 bifaces and biface fragments, 78 flakes/debitage, 1 hammerstone or mano, and 21 faunal bone fragments.		
Button Cairn	23HI208		1	Burial contained remains of 2 individuals.	Woodland and Mississippian	Bray 1963a

Appendix B

NAGPRA Items from Smithville Reservoir

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Chester Reeves Mound	23CL108	2N 10W for Burial 19; 10N 10W at 150 cm for Burial 24 remains.	24	Burial 1 contained remains of 1 adult; Burial 2 contained 1 unidentifiable bone; Burial 3 contained 1 calcined bone fragment from 1 individual; Burial 4 contained postcranial remains from 1 individual; Burial 5 contained remains of an infant or subadult; Burial 6 contained postcranial and indeterminate bone fragments from 1 individual; Burial 7 contained cranial and dental fragments from a subadult/young adult; Burial 8 contained 1 long bone shaft fragment from 1 individual; Burial 9 contained 1 unidentifiable bone fragment from 1 individual; Burial 10 contained 1 postcranial fragment of 1 adult; Burial 11 contained postcranial fragments of 1 subadult individual; Burial 12 contained cranial and unidentifiable fragments of 1 individual; Burial 13 contained cranial fragments from 1 individual; Burial 14 contained 1 long bone fragment from 1 individual; Burial 15 contained 1 unidentifiable bone fragment from 1 individual; Burial 16 contained 1 bone fragment, likely human; Burial 17 contained unidentifiable bone fragments from a minimum of 1 individual; Burial 18 contained teeth and tooth fragments from a subadult; Burial 19 (bag was labeled as from Burial 22) contained postcranial and unidentifiable bone fragments from 1 individual; Burial 20 contained dental fragments from 1 individual; Burial 21 contained postcranial and unidentifiable bone fragments from an infant; Burial 22 contained cranial, dental, and unidentifiable bone fragments from an infant; Burial 23 contained postcranial and dental fragments of a possible subadult; and Burial 24 contained postcranial and unidentifiable bone fragments from 1 individual. Possible Associated Funerary Objects included 4 unidentifiable fragments which were unusual and could possibly have been fragments of shell or bone. Another object associated with the mound was 1 piece of fossil coral. Additional historical objects recovered from the mound were not thought to have been associated with any of the burials and included 11 pieces of plastic (1 shampoo bottle, 2 fragments with a transfer decoration, and 8 miscellaneous fragments), 12 pieces of baked clay or daub, 47 historic metal objects (rusted pliers, rusted flathead screwdriver, rusted wrench, possible sink stopper, 1 flat metal fragment, 15 nails, 2 pieces of wire, 21 staples, 1 tack, 1 piece of aluminum foil, 1 washer, and 1 screw), 7 historic ceramic objects (toy china sugar bowl and tea cup set, 2 fragments from the sugar bowl, 1 blue ceramic vase, and 2 ceramic fragments), 37 historic glass fragments (1 light green, 1 amber, 35 clear), 2 pieces of historic building material (shaped limestone), 1 pencil and eraser, 2 pieces of styrofoam, 3 pieces of red wax, 1 concrete chunk, 13 nutshell fragments, and approximately 110 unmodified stones.	Early to Middle Mississippian/ Steed-Kisker phase	O'Brien 1977

Appendix C

NAGPRA Items from Stockton Reservoir

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Buck's Cave	23CE32		1	This burial contained cranial and postcranial remains representing 1 adult.	Woodland	McMillan 1966
Unnamed	23CE34		1	This burial contained cranial and postcranial remains representing a minimum of 8 individuals (2 adults of indeterminate sex, 1 adolescent/young adult of indeterminate sex, 4 subadults, and 1 infant). Possible Associated Funerary Objects included 6 flakes/debitage, 51 miscellaneous stones, 3 pieces of groundstone, 5 pieces of charcoal, 325 faunal bone fragments, 14 pieces of shell, and 1 piece of wood.	Unknown Prehistoric	Unpublished
Simmons Mound	23CE104	Feature 1 Feature 3	3	Burial 1/Feature 1 contained postcranial remains representing a minimum of 1 adult. Burial 2/Feature 3 contained cranial and postcranial remains representing a minimum of 1 adult. Broadcast burials contained cranial and postcranial remains representing a minimum of 3 individuals (1 adult female, 1 adult of indeterminate sex, and 1 subadult). Possible Associated Funerary Objects from the mound fill included 32 chipped-stone projectile points (26 Scallorn, 1 Rice Side Notched, 1 Gary, 1 indeterminate corner-notched, and 3 point fragments), 1 uniface, 1 biface, 1 chipped-stone drill, 3 chert cores, 2 chipped-stone scrapers, 39 pieces of debitage, 4 miscellaneous stones, 2 pieces of groundstone, 1 soil sample, and 23 faunal bone fragments.	Unknown Prehistoric	Bradham 1962, 1963
Mache Hollow Shelter	23CE111		1	Burial contained cranial and postcranial remains representing a minimum of 1 individual.	Woodland	McMillan 1966; Wood and Pangborn 1968b
Clemons Mound	23CE122	Feature 3	4	Burial 1/Feature 1 contained cranial and postcranial remains representing a minimum of 6 individuals; Burial 2/Feature 2 contained cranial and postcranial remains representing a minimum of 8 individuals; Burial 3/Feature 3 contained cranial and postcranial remains representing a minimum of 6 individuals; and Burial 4 contained cranial and postcranial remains representing a minimum of 1 possible subadult.	Woodland	Wood 1965a; McMillan 1968

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Possible Associated Funerary Objects in Feature 1 included 129 pieces of debitage, 1 projectile point base, 1 oblong stone with embedded crystals, 1 flake blade, 1 large chipped-stone core, 7 pieces of fire-cracked limestone, 8 miscellaneous stones, and 4 faunal bone fragments. Possible Associated Funerary Objects from Feature 2 included 27 pieces of debitage, 1 chipped-stone projectile point tip, 9 miscellaneous rocks, 1 ceramic sherd, 2 packets of soil from the medullary cavities of long bones, and 16 faunal bone fragments. Possible Associated Funerary Objects from Feature 3 included 11 pieces of debitage, 12 miscellaneous stones, 12 faunal bone fragments, and 2 packets of soil from cranial sinuses. Other Possible Associated Funerary Objects from the general mound fill consisted of 54 projectile points (17 Rice Side Notched, 33 Cooper/affinis Snyders, 1 Fresno, 2 Guffy-like, and 1 indeterminate), 8 bifaces/points and fragments, 1 uniface, 1 chipped-stone scraper, 1 chipped-stone knife, 1 chipped-stone drill, 3 chipped-stone cores, approximately 67 flakes, 2 pieces of groundstone, 16 miscellaneous stones, 1 historic ceramic sherd, 15 bone beads, 4 shell beads, 77 unmodified faunal bone fragments, and 28 unmodified snail shell fragments.		
Broyles Site Cairn	23CE123	Feature 2 Feature 3	3	Burial 1 contained cranial and postcranial remains representing a minimum of 3 individuals; Burial 2/Feature 2 contained cranial and postcranial remains representing a minimum of 2 individuals; and Burial 3/Feature 3 contained cranial and postcranial remains representing a minimum of 4 individuals. Broadcast burials included cranial and postcranial remains representing a minimum of 4 individuals. Possible Associated Funerary Objects from Burial 1 included 6 flakes, 5 bone pin fragments, 2 bone beads, 2 shell beads, and 92 unmodified faunal bone fragments. Possible Associated Funerary Objects from Burial 2/Feature 2 included 5 arrowpoints (2 Harrell/Cahokia, 2 Huffaker, and 1 Washita), 21 flakes, 51 pieces of hematite, 7 miscellaneous stones, 90 bonebeads, 1 bone or shell bead, 21 unmodified faunal bone fragments, and 3 shell fragments. Possible Associated Funerary Objects from Burial 3/Feature 3 included 1 groundstone celt (axe head), 29 flakes, 1 miscellaneous stone, 2 ceramic sherds, 101 *Leptoxis* (snail shell) beads (found in a cache), 20 *Leptoxis* beads (found in a cache), 22 unmodified faunal fragments, and 3 shell fragments.	Woodland	Chapman and Pangborn 1962

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Other Possible Associated Funerary Objects found in the general cairn fill included 21 projectile points (1 Standlee Langtry, 4 Rice Side Notched, 5 Huffaker, 6 Scallorn, 1 Reed, 3 Washita, and 1 Harrell/Cahokia), 11 miscellaneous biface/projectile points and fragments, 56 flakes, 1 groundstone mano, 1 hammerstone, 1 piece of hematite, 3 miscellaneous stones, 48 bone beads, 44 shell beads, 29 unmodified faunal bone fragments, and 1 stick.		
Little Mound	23CE135		1	This burial contained postcranial remains representing a minimum of 1 individual of unknown sex and age. Possible Associated Funerary Objects included 1 groundstone axe fragment, 1 groundstone mano, 1 groundstone metate, and 2 flakes.	Unknown Prehistoric	Pangborn and McMillan 1962
Unnamed	23CE139		1	This burial contained cranial and postcranial remains representing a minimum of 1 infant. Possible Associated Funerary Objects included 3 ceramic sherds and dust.	Unknown Prehistoric	Pangborn 1964a
DeGraffenreid Mound	23CE141		1	This burial contained cranial and postcranial remains representing a minimum of 1 adult of unknown sex. Possible Associated Funerary Objects included 1 small biface, 2 miscellaneous stones, and 5 faunal bone fragments.	Unknown Prehistoric	Pangborn 1964b
Umber Point Mound	23CE148	Feature 3C Feature B4/D4 Feature E5 Feature B6 (and B6a) Feature G7	8	Burial 1 (and 1A) were bundle burials and contained remains representing a minimum of 3 individuals; Burial 2 was considered a secondary burial and contained remains representing a minimum of 2 individuals; Burial 3/Feature C3 was a cremation and included remains representing a minimum of 4 individuals; Burial 4 was a cremation burial and included remains representing a minimum of 3 individuals; Burial 5/Feature E5 was considered a bundle burial and contained remains representing a minimum of 2 individuals; Burial 6/Feature B6 (and B6A) type was unknown but included remains representing a minimum of 2 individuals; Burial 7 was considered to be a secondary deposited burial and contained remains representing a minimum of 2 individuals; and Burial 8 consisted of broadcast burials and contained cranial and postcranial remains representing a minimum of 7 individuals.	Woodland	Wood 1966; Wood and Brock 1984

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Associated funerary object for Feature B4/D4 was 1 chipped-stone Cupp (type) projectile point. Possible Associated Funerary Objects with Burial 1 (and 1A) were 15 flakes, 3 miscellaneous stones, 1 shell tablet fragment, and 1 unmodified shell fragment. Possible Associated Funerary Objects with Burial 3/Feature 3C included 6 flakes, 1 miscellaneous stone, and 2 unmodified shell fragments. Possible Associated Funerary Objects in Feature B4/D4 included 3 flakes, 4 miscellaneous stones, 2 pieces of worked hematite, and 2 unmodified shell fragments. Possible Associated Funerary Objects associated with the broadcast burials included 164 flakes, 2 chipped-stone blades, 3 miscellaneous stones, and 2 unmodified faunal bone fragments. Other Possible Associated Funerary Objects from the general mound fill consisted of 28 projectile points (13 Scallorn, 9 Rice Side Notched, and 6 Cooper/affinis Snyders), 7 chipped-stone tools (2 drills, 4 bifaces and fragments, 1 core/scraper), 4 flakes, 5 manos and mano fragments, 14 stone pipe fragments, 1 clay or stone pipe fragment, 1 piece of hematite, 1 bag of orange clay, 3 bags of soil, 1 pollen sample, 1 deer bone awl, 2 tubular bone beads, 9 bone spatulae or pin fragments, 22 turtle carapace fragments, 2 bone fragments stained green, 11 shell beads (2 disk, 3 tubular, 3 *Leptoxis,* 3 unidentified).		
Sorter's Bluff Mound	23CE150	A1, D4, F6	11	Burial1/A1 was a secondary burial and contained remains representing a minimum of 2 individuals; Burial 2 was a cremation and contained representing a minimum of 3 individuals; Burial 3 was a bundle burial and contained remains representing a minimum of 2 adults of indeterminate sex; Burial D4 was a cremation and contained remains representing a minimum of 3 individuals; Burial 5 contained postcranial remains representing a minimum of 2 individuals; Burial 6/F6 was identified as a flexed primary interment and contained remains representing a minimum of 2 individuals; Burial 7 was a bundle burial and contained remains representing a minimum of 2 adults of indeterminate sex; Burial 8 was co-mingled with Burial 7 and contained remains representing a minimum of 1 child; Burial 9 was a primary interment and contained remains representing a minimum of 2 individuals; and Burial 10 contained cranial and postcranial remains representing a minimum of 1 adult, possible male. Unknown burials also contained cranial and postcranial remains representing a minimum of 2 individuals.	Woodland	Wood 1966; Wood and Brock 1984

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Associated Funerary Objects from Burial 2 contained 2 faunal bone fragments. Associated Funerary Objects with Burial 7 included 6 periwinkle shells. Associated Funerary Objects with Burial 9 included 1 turtle carapace bowl and 1 deer bone wrench. Records also indicate that other Associated Funerary Objects included 26 *Leptoxis* beads, 1 periwinkle shell, 1 large conch bead, 1 mollusk shell item, and 3 arrowpoints. Possible Associated Funerary Objects from Burial 1/A1 included 19 chipped-stone flakes. Possible Associated Funerary Objects from Burial 3 included 15 snail shells, 1 bag of soil, and 1 vial of soil. Possible Associated Funerary Objects from Burial D4 included 3 flakes/shatter, 1 chipped-stone scraper, and 2 large cores or choppers. Possible Associated Funerary Objects with Burial 6/F6 included 1 bag of soil. Possible Associated Funerary Objects with Burial 9 included 1 bag of soil and one vial of soil. Possible Associated Funerary Objects found in boxes from the unknown burials included 49 flakes and 2 miscellaneous stones. Other Possible Associated Funerary Objects from the general mound fill consisted of 15 projectile points (10 Scallorn, 1 Reed, 2 Harrell/Cahokia, 1 indeterminate triangular, and 1 Late Woodland), 1 biface fragment, 60 flakes/debitage, 3 large cores or choppers, 3 manos/hammerstones, 28 miscellaneous stones, approximately 200 shell-disk beads and bead fragments, 2 *Leptoxis* beads, 1 unmodified snail shell, 12 unmodified shell fragments, 27 bone spatulae fragments, 2 bone pin or awl fragments, 11 antler tool fragments, 2 tubular bone beads, and 1 bag of soil.		
Bowling Stone Mound	23CE152		5	Burial 1 was a cremation and contained remains representing a minimum of 2 individuals; Burial 2 was also a cremation and contained remains representing a minimum of 1 adult of indeterminate sex; Burial 3 as a flexed primary or secondary interment and contained representing a minimum of 4 individuals; and Burial 4, identified as an ossuary, was recorded in the square records as being part of Burial 3 and contained remains representing a minimum of 2 individuals. Broadcast burials contained cranial and postcranial remains representing a minimum of 4 individuals. Associated Funerary Objects from Burial 1 included 2 worked bone tool fragments. Associated Funerary Objects with Burial 3 included 16 faunal bone fragments, 2 mollusk shell fragments, and 5 seeds or corn kernels.	Woodland	Wood 1966; Wood and Brock 1984

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Possible Associated Funerary Objects with Burial 1 consisted of 3 unmodified faunal bone fragments, 1 flake, and 1 miscellaneous stone. Possible Associated Funerary Objects found near Burial 2 included 1 flake. Possible Associated Funerary Objects found near Burial 3 consisted of 41 flakes/shatter and 1 piece of limestone with a possible drill hole. Possible Associated Funerary Objects perhaps with the broadcast burials consisted of 74 flakes, 5 miscellaneous stones, 1 fire-cracked rock, and 3 shell fragments. Other Possible Associated Funerary Objects from the general mound area consisted of 3 pieces of debitage, 5 Scallorn arrowpoints, 7 pieces of groundstone, 3 ceramic sherds, 7 bone tool fragments, 1 shell gorget with two drilled holes, 38 faunal bone fragments, 1 canid skull, 1 canid femur, 1 empty vial labeled as a pollen sample, and 2 vials of soil.		
Sycamore Bridge Mound	23CE154		3	Burial 1 was a cremation and included Cranial and postcranial remains representing a minimum of 3 individuals (1 adult of unknown sex, 1 subadult, and 1 infant). Burial 2 was a primary inhumation and contained Cranial and postcranial remains representing a minimum of 3 individuals (1 adult of unknown sex, 1 subadult, and 1 infant). Burial 3 contained strewn remains of cranial and postcranial remains representing a minimum of 1 adult of indeterminate sex. Associated Funerary Objects with Burial 1 included 1 projectile point fragment. Possible Associated Funerary Objects with Burial 1 consisted of 34 flakes/shatter, 1 piece of worked shell, and 1 stick. Other Possible Associated Funerary Objects from the general mound fill consisted of 24 projectile points (22 Scallorn, 1 Fresno, and 1 Archaic), 4 bifaces/indeterminate projectile points and fragments, 1 piece of hematite, 3 celt (axe head) fragments, 1 oblong groundstone object, 2 miscellaneous stones, 24 pieces of a turtle carapace bowl, 1 bone awl fragment, 4 bone tool fragments, 2 fragments of a bone spatulate object, 1 shell bead, and 2 pieces of worked shell.	Woodland	Wood 1966; Wood and Brock 1984
Hogback Cairn	23CE155		1	Burial was excavated by private individuals and contained cranial and postcranial remains representing a minimum of 5 individuals (1 adult possible male, 1 adult possible female, and 3 subadults).	Unknown Prehistoric	Wood 1965a

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Possible Associated Funerary Objects included 7 flakes, 1 core or chert chunk, 14 miscellaneous stones, 21 faunal bone fragments, and 3 pieces of shell.		
Amity Mound	23CE190		1	Burial contained cranial and postcranial remains representing a minimum of 4 individuals (2 adults of unknown sex and 2 subadults). Possible Associated Funerary Objects included 3 miscellaneous stones, 2 crinoid-like fossils, and 1 dried mud clump. Other Possible Associated Funerary Objects recovered from the mound surface and fill consisted of 171 miscellaneous stones, 1 piece of hematite, 1 ceramic sherd, 77 faunal bone fragments, approximately 200 snail shells, and 1 piece of bent iron.	Woodland	McMillan 1965b, 1968
Alberti Mound	23CE198		1	Burial contained cranial and postcranial remains representing a minimum of 2 individuals (1 adult of indeterminate sex and 1 infant). Possible Associated Funerary Objects included 181 flakes/debitage, 31 miscellaneous stones, approximately 1,700 faunal bone fragments, and 15 mussel and snail shell fragments.	Woodland	McMillan 1965b, 1968
Tater Hole Cave/Shelter	23DA50		1	Burial contained cranial and postcranial remains representing a minimum of 1 adult of indeterminate sex. Possible Associated Funerary Objects included 6 bags of ceramic sherds.	Woodland	McMillan 1966
Morgan Mound	23DA201		3	Burial 1 was a bone concentration or bundle burial and contained cranial and postcranial remains representing a minimum of 4 individuals (1 adult possible female, 2 subadults, and 1 infant). Burial 2 was a bundle burial and contained cranial and postcranial remains representing a minimum of 1 adult of indeterminate sex. Broadcast burials contained cranial and postcranial remains representing a minimum of 5 individuals (2 adults of indeterminate sex and 3 subadults). Possible Associated Funerary Objects from Burial 2 included 5 flakes and 3 pieces of sandstone. Possible Associated Funerary Objects found in the same container as the broadcast burials included 8 flakes, 1 piece of sandstone, and 1 grass clump.	Woodland	Wood 1961, 1967

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Other Possible Associated Funerary Objects recovered from the general mound fill consisted of 4 projectile points (3 Scallorn and 1 Rice Side Notched), 2 chipped-stone bifaces/indeterminate projectile points, 1 chipped-stone scraper fragment, 1 uniface, 6 flakes, 1 piece of groundstone, 1 tubular shell bead, 1 reconstructed shell gorget, 1 *Leptoxis* bead, 2 unmodified shells, and 31 faunal bone fragments. Several items match the records descriptions to those that were near Burial 3 (shell gorget and 2 Scallorn arrowpoints) and Burial 4 (Rice Side Notched point and tubular shell bead), but they were not labeled as coming from those Burials. These burials were not located in the collections, but could be represented by some or all of the human remains attributed to the broadcast burials.		
Sand Bluff Cairn	23DA216	Feature 2	1	Records indicated that there was a formal burial, Burial 1, containing an adult bundle burial, and Feature 2, which contained many bone fragments. The records stated that Feature 2 might be the burial pit for Burial 1. Possible Associated Funerary Objects included 30 chipped-stone projectile points (13 Scallorn, 5 Rice Side Notched, 1 Marshall, 1 Standlee Langtry, 1 Guffy-like, 9 indeterminate dart), 2 chipped-stone core/biface fragments, 255 chipped-stone flakes and waste, 3 miscellaneous stones, 1 piece of galena, 233 faunal bone fragments, and 19 pieces of charcoal. Feature 2, according to the records, contained 3 small knife fragments, charcoal, and one corn kernel.	Late Prehistoric	Wood 1966; Wood and Brock 2000
Matthews Mound	23DA219	Feature 1	6	Burial 1 was a cremation burial with remains representing a minimum of 2 individuals; Burial 2/Feature 1 contained remains representing a minimum of 2 individuals; Burial 3 was said to be co-mingled with Burial 4, an adult, but no adult remains were found in Burial 3, and no remains identified as Burial 4 were located in the collection. Burial 4 may be represented by some of the broadcast burial remains. Broadcast burials contained remains representing a minimum of 11 individuals. These remains may represent, in part, Burials 4, 5, and/or 6, which were discussed in the associated records, but are not evident in the collections. Associated Funerary Objects for Burial 2 included 1 stone elbow pipe fragment, 18 flakes, and approximately 50 shell fragments.	Late Prehistoric	Wood 1965a; Wood and Brock 2000

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Possible Associated Funerary Objects with Burial 1 included 1 flake. In addition, the records indicated that several objects were in direct association with Burial 1, including half of a small mano, a complete turtle carapace, 22 *Leptoxis* beads, and burned corn kernels and nuts. These items were not identified for Burial 1 during the inventory, but similar items were identified for the general mound fill. Some of these items may actually belong with Burial 1. Possible Associated Funerary Objects with Burial 2 include 3 faunal bone fragments. Possible Associated Funerary Objects with Burial 3 included 2 miscellaneous stones. Possible Associated Funerary Objects found in the broadcast burial containers included 1 chipped-stone biface/point fragment, 1 chipped-stone tool fragment, 43 flakes/chunks, 1 piece of red ochre, 1 miscellaneous stone, 4 soil samples, 1 botanical item, and 1 vial labeled "open air pollen sample." Other Possible Associated Funerary Objects from the general mound fill consisted of 6 projectile points (4 Scallorn and 2 Rice Side Notched), 4 biface/point fragments, 2 flakes/chunks, 3 mano fragments, 1 piece of groundstone, 1 reconstructed ceramic, undecorated, shell-tempered, globular jar, 1 ceramic rim sherd, 17 shell-disk beads and bead fragments, 8 worked faunal bone fragments, 258 unworked faunal bone fragments, and 2 soil samples.		
Comstock Mound	23DA221		1	Burial was an historic Native American burial and contained cranial and postcranial remains representing 1 adult female. Associated Funerary Objects for Burial 1 included 3 historic metal "c-shaped" objects, 350 historic seed beads, 9 faunal bone fragments, and 4 biface fragments. Possible Associated Funerary Objects recovered from the general mound fill consisted of 5 projectile points (3 Fresno and 2 Delaware), 24 bifaces and biface fragments, 2 chipped-stone scrapers, 242 flakes/shatter, 1 nutting stone, 33 faunal bone fragments, 1 soil sample, and 2 pollen samples.	Historic (1800s)	Wood 1965a; Wood and Pangborn 1968a
Tunnel Bluff Mound	23DA222		5	Burial 1 was bundle burial and contained remains representing a minimum of 1 subadult; Burial 2 was identified as cremation and contained remains of a minimum of 4 individuals; Burial 3 was a bundle burial and contained remains representing a minimum of 4 individuals (note: the records indicate that Burial 3 had an arrowpoint and a complete deer ulna flaker associated with the remains.	Woodland	Wood 1965a; Wood and Brock 1984

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				These were not identified in the collections, but they may be included in the objects that are listed as burial fill materials below); and Burial 4 was a bundle burial and contained remains of a minimum of 7 individuals. Broadcast burials were represented by the remains of a minimum of 5 individuals. Associated Funerary Objects with Burial 2 consisted of 1 large sandstone slab with polished surface, 6 miscellaneous stones, and 15 flakes. Associated Funerary Objects with Burial 4 consisted of 1 burned and polished sandstone slab, 8 miscellaneous stones, 16 flakes, 1 ceramic sherd, and 1 faunal bone fragment. Possible Associated Funerary Objects with the broadcast remains consisted of 30 flakes and 6 miscellaneous stones. Other Possible Associated Funerary Objects recovered from the general mound fill consisted of 13 projectile points (1 Cupp, 10 Scallorn, 1 Waubesa, and 1 Etley-like), 7 biface/projectile point fragments, 1 triangular chipped-stone projectile point blank, 1 chipped-stone drill, 1 core/biface, 1 reconstructed stone elbow pipe, 2 stone elbow pipe fragments, 1 reconstructed mano, 1 small hammerstone, 2 groundstone fragments, 1 celt (axe head) or mano fragment, 1 chert cobble, 1 miscellaneous stone, 11 shell-disk beads, 2 worked conch shell fragments, 1 drilled conch shell fragment, 38 mollusk shell fragments, 71 fragments of a turtle shell bowl, 37 bone beads and bead fragments, 1 bone pin or spatula tip, 1 bone pin or awl butt end, 1 fragment of a smoothed bone spatulate object with etched parallel holes, 1 fragment of a possible bone spatulate gorget, 41 bone spatulate tool fragments, 2 fragments of 2 bone or antler pins, and 2 deer bone (ulna) tools.		
Bunker Hill Mound	23DA225		9	Burial 1 was a bundle burial and contained remains representing a minimum of 1 adult female; Burial 2 was a primary, flexed interment and contained remains representing a minimum of 3 individuals; Burial 3 contained remains representing a minimum of 2 individuals (not: the subadult labeled on the storage containers as Burial 3 matches the description in the original analysis records for Burial 4; Burial 4 was not accounted for during the current analysis, so this individual is likely Burial 4); Burial 5 was a primary interment and contained remains representing a minimum of 2 subadults; Burial 6 contained remains representing a minimum of 1 subadult; Burial 7 was a bundle burial and contained remains representing a minimum of 2 individuals; and Burial 8 was a disturbed burial and contained remains representing a minimum of 2 individuals. Broadcast burials also contained cranial and postcranial remains representing a minimum of 2 individuals.	Woodland	Wood 1965a; Wood and Brock 1984

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Associated Funerary Objects from Burial 1 included 1 soil sample from a long bone medullary cavity. Associated Funerary Objects from Burial 5 included 2 large shell-disk beads and 4 faunal bone fragments. Possible Associated Funerary Objects from Burial 2 included 9 miscellaneous stones, 3 faunal bone fragments, and 5 shell fragments. Possible Associated Funerary Objects with Burial 3 included 4 miscellaneous stones. In addition, the records describing Burial 3 indicate that two objects were associated with Burial 3, including a shale pipe bowl and a polished bone tool fragment. Possible Associated Funerary Objects with Burial 4 included one arrow point, charred corn, two *Leptoxis* bead fragments, and mollusk shell fragments. These objects were not identified in the collection but may be included in the listed mound fill artifacts. Possible Associated Funerary Objects with Burial 7 included 62 miscellaneous stones and 1 faunal bone fragment. Possible Associated Funerary Objects with the broadcast burials included 23 flakes, 14 miscellaneous stones, and 291 shell beads. These items were found in the same storage containers as the broadcast remains, but it is unclear if they are associated with them. It is possible that the 291 shell beads are those that were said to be associated with the formal burials from the mound. Other Possible Associated Funerary Objects from the general mound fill consisted of 23 projectile points and fragments (2 Etley, 12 Scallorn, 2 Huffaker, 1 Keota [Scallorn-like], 1 Reed, 1 Nodena, 1 small triangular, 3 unidentified darts), 1 chipped-stone dart or knife fragment, 12 biface/core fragments, 1 chipped-stone drill, 11 flakes/debitage, 1 reconstructed partial celt, 1 half of a mano, 2 reconstructed stone pipe bowls, 1 burned ceramic sherd, 2 tubular bone beads, 2 flat spatulate bone tool fragments, 1 deer bone awl base, 14 bone tool fragments, 3 turtle carapace fragments, 30 unmodified faunal bone fragments, 2 tubular conch shell beads, and 1 bag of soil.		

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Divine Mound	23DA226		9	Burial 1 was a cremation and contained remains of a minimum of 1 individual; Burial 2 was a bundle burial and contained remains representing a minimum of 1 adult male; Burial 3/3A was a probable bundle burial and contained remains representing a minimum of 3 individuals; Burial 4/4A/4B/4C was a bundle burial and contained remains representing a minimum of 3 individuals; Burial 5 was a primary interment and contained remains representing a minimum of 4 individuals; Burial6/6A/6B/6C/6D was an ossuary and contained cranial and postcranial remains representing a minimum of 10 individuals; Burial 7 was a flexed interment and contained remains of a minimum of 2 individuals; and Burial 8 was a bundle burial and contained postcranial remains representing a minimum of 1 adult probable female. Broadcast burials also contained cranial and postcranial remains representing a minimum of 3 individuals. Associated Funerary Objects: No associated objects were identified in the collection as being from Burial 1. However, the records indicate that two arrow points, ceramic pipe fragments, and a mass of charred seeds with a woven bag fragment were associated with Burial 1. These items were not found in the collection; however, some of these objects may be represented by the items listed under mound fill below. Associated Funerary Objects from Burial 3/3A included 8 pieces of hematite. Additional associated objects according to the records include modified turtle shell fragments, a bone awl tip, a projectile point fragments, and greenstone celt fragments. These items were not found in the collection; however, some of these objects may be represented by the items listed under mound fill below. Associated Funerary Objects: No objects were identified in the collections as associated with Burial 5, but the records indicated that a number of artifacts were associated, including five arrow points, mollusk shell fragments, a bone bead, a tubular conch shell bead, and a woven bag with charred seeds. These items were not found in the collection; however, some of these objects may be represented by the items listed under mound fill below. Associated Funerary Objects: No associated objects were identified in the collections for Burial 7. However, the records indicate that a number of artifacts were found in association including an arrow point, modified turtle shell fragments, charred corn, and hematite. These items were not found in the collection; however, some of these objects may be represented by the items listed under mound fill below.	Woodland	Wood 1965a; Wood and Brock 1984

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Possible Associated Funerary Objects with Burial 2 included 1 bag containing a soil sample. Possible Associated Funerary Objects from Burial 3/3A included 1 flake, 1 tubular bird bone bead, and 1 seed case. Possible Associated Funerary Objects with Burial 6 consisted of 5 flakes, 1 orange-colored concretion, and 10 shell fragments. Possible Associated Funerary Objects found with broadcast burials included 11 flakes, 1 chipped-stone scraper, 2 chipped-stone cores, 18 shell fragments, and 3 pollen/soil samples. Other Possible Associated Funerary Objects recovered from the mound consisted of 15 projectile points (10 Scallorn, 1 Fresno, 1 Rice Side Notched, 1 Delaware, 1 possible Big Sandy, and 1 possible Motley), 8 indeterminate chipped-stone projectile point fragments, 3 indeterminate bifaces, 2 ceramic sherds, 3 celt (axe head) fragments, 1 mano fragment, 2 stone pipe fragments, 2 hammerstones, 1 reconstructed bone spatulate tool fragment, 3 bone spatulate tool fragments, 3 bone awl fragments, 2 modified turtle carapace fragments, 1 unmodified faunal bone fragment, 3 conch shell-disk beads, 1 half of a tubular conch shell bead, 3 conch shell gorget fragments, 2 charcoal samples, 1 soil sample, and 1 carbonized seed.		
Unnamed	23DA235		1	Burial 1 contained dental remains representing a minimum of 1 adult of indeterminate sex. Possible Associated Funerary Objects included 3 chipped-stone projectile point fragments, 18 biface fragments, 1uniface, 2 groundstone fragments, and 2 hammerstone fragments.	Unknown Prehistoric	Pangborn 1963
Turnback Cairn	23DA237		1	Burial 1 contained cranial and postcranial remains representing a minimum of 1 probable adult of indeterminate sex. Possible Associated Funerary Objects from the general cairn fill consisted of 11 projectile points (7 Scallorn, 1 Keota [Scallorn-like], 1 Marshall, 1 Guffy-like, and 1 indeterminate Mississippian), 2 bifaces/projectile points, 6 biface fragments, 1 uniface, 80 flakes, 1 half of a mano, 5 miscellaneous stones, 1 pollen sample, 1 faunal bone fragment, and 1 piece of wood.	Late Prehistoric	Wood 1965a; Wood and Brock 2000

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Paradise Tree Mound	23DA246		10	Burial 1/1A is a bundle burial and contained remains of a minimum of 4 individuals; Burial 2/2B was a possible cremation and contained remains of a minimum of 4 individuals; Burial 3 was a bundle burial and contained remains of a minimum of 2 individuals; Burial 4/4D was also a cremation and contained remains of a minimum of 2 individuals; Burial 5/E5 is a bundle burial and contained remains of a minimum of 1 adult female; Burial 6/F6 is a cremation and contained remains of a minimum of 1 adult; Burial 7/G7 is a bone concentration and contained remains representing a minimum of 1 adult; Burial 8/8H type was undetermined and contained cranial and postcranial remains representing a minimum of 1 adult; Burial 9/I9 was a cremation and contained remains representing a minimum of 1 individual; and Burial 10/10J was a bone concentration and contained remains representing a minimum of 1 adult female. Unknown burials contained cranial and postcranial remains representing a minimum of 4 individuals. Associated Funerary Objects from Burial 1/1A included 4 tubular bird bone beads. Associated Funerary Objects from Burial 2/2B included 1 flake, 1 reconstructed long, spatulate, smoothed, animal rib tool (four pieces glued together), and 39 *Leptoxis* beads and bead fragments. Associated Funerary Objects from Burial 6/F6 included 1 *Olivella* shell bead and 10 shell fragments. Associated Funerary Objects from Burial7/G7 included 2 Guffy-like projectile points. Associated Funerary Objects from Burial 9/I9 included 2 tubular conch shell beads and bead fragments. Associated Funerary Objects from Burial 10/10J included 2 projectile points (1 Scallorn and 1 Rice Side Notched). Possible Associated Funerary Objects from Burial 4/4D included 14 flakes, 1 piece of sandstone, and 2 red paint stones/ochre. Possible Associated Funerary Objects from Burial 7/G7 included 1 flake and 1 miscellaneous stone. Possible Associated Funerary Objects from Burial 8/8H included 2 flakes/shatter and 1 miscellaneous stone. Possible Associated Funerary Objects from storage containers containing items from the unknown burials included 17 flakes, over 100 shell fragments, and 1 piece of burned wood. Other Possible Associated Funerary Objects found in the general mound fill included 4 chipped-stone projectile point fragments (1 Sedalia point base, 3 unidentified base fragments), approximately 140 shell-disk beads and bead fragments, 1 snail shell, 1 reconstructed, very smooth, bone (possible) ornament with incised dotted decoration, 17 bone tool or ornament fragments (pins and spatulate objects).	Woodland	Wood 1966; Wood and Brock 1984

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Eureka Mound	23DA250		4	Burial 2 was a flexed primary interment and contained remains representing a minimum of 1 adult female (note: according to the associated records, this individual held Burial 3's skull in her arms); Burial 3 was also a flexed primary interment and contained remains of a minimum of 1 child; and Burial 4 was a flexed primary interment and contained remains of a minimum of 1 adult male. Human remains (postcranial remains representing a minimum of 1 adult), consisting of three radius fragments, were found mixed in with the faunal bone collection. It is likely they belong to one of the adults in the formal burials (Burial 2 or Burial 4), or Burial 1, which was identified as a few bones in a looter's backdirt pile, but this cannot be determined. Associated Funerary Objects with Burials 2 and 3 consisted of 2 chipped-stone projectile point fragments, 16 freshwater drum (fish) teeth, and 4 deer bones and bone fragments. Associated Funerary Objects with Burial 4 consisted of 13 flakes, 5 bone pin fragments (one stained green), copper flakes and pieces of wood, and 1 foil packet of charred wood/charcoal. Possible Associated Funerary Objects recovered from the general mound fill consisted of 8 projectile points (3 Scallorn, 1 Rice Side Notched, 1 Lander, 1 Haskell fragment, 1 Guffy-like, and 1 indeterminate), 5 biface fragments, 4 uniface fragments, 2 chipped-stone cores, 106 flakes/debitage, 1 small pecked sandstone rock, 25 faunal bone fragments, and 2 pollen/soil samples.	Unknown Prehistoric	Wood 1966; Wood and Pangborn 1968a
Star Ridge Cairn	23PO165		1	A burial represented by cranial and postcranial remains (minimum of 2 individuals). Possible Associated Funerary Objects with the remains or just part of the general fill consisted of 1 possible Rice Side Notched point, 20 flakes, 4 pieces of dolomite (3 are smoothed), 2 groundstone artifacts, 1 shell-disk bead, and 63 faunal bone fragments.	Unknown Prehistoric	Wood 1961
Madrigal Mound	23PO300		9, but information provided for 5	The records for this site give contradictory information. What is reported was found during the NAGPRA inventory without an attempt to correlate it to the associated documentation. Burial 1 contained remains representing a minimum of 2 adults; Burial 2 contained remains representing a minimum of 1 elderly male; Burial 4 contained remains of a minimum of 3 individuals; Burial 7 contained remains representing a minimum of 2 adults; Burial 8 contained remains representing a minimum of 1 adult female; and Burial 9 included remains representing a minimum	Late Prehistoric	Wood 1965a; Wood and Brock 2000

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				of 1 individual. Broadcasts burials consisted of cranial and postcranial remains representing a minimum of 5 individuals. Possible Associated Funerary Objects found in Burial 2 contained 2 burned rocks and 3 faunal bone fragments. Possible Associated Funerary Objects related to Burial 4 included 3 flakes and 4 mussel shell fragments. Possible Associated Funerary Objects from Burial 7 included 3 soil samples from long bone medullary cavities. Possible Associated Funerary Objects related to Burial 8 included 4 soil samples from long bone medullary cavities. Possible Associated Funerary Objects related to the broadcast burials included 17 flakes/debitage, 1 piece of sandstone, 2 miscellaneous stones, 1 baked clay ball, 3 ceramic sherds, 2 mussel shell fragments, 2 snail shell fragments, 2 bird bone fragments (one is a possible bead fragment), 34 faunal bone fragments, 1 soil sample from a long bone medullary cavity, and 1 soil sample. Other Possible Associated Funerary Objects recovered from the general mound fill and on the mound surface consisted of 4 projectile points (2 Scallorn, 1 Rice Side Notched, and 1 Cooper/affinis Snyders), 5 unidentified chipped-stone projectile point fragments, 1 mano, 288 burned snail shell beads, 8 conch shell-disk beads, 1 conch shell fragment, 1 land snail shell fragment, 16 antler or bone bracelet fragments, 5 bone awl fragments, 1 pollen sample, and 1 soil sample.		
Petit Cote Cairn	23PO301		1	Human remains include cranial remains representing a minimum of 1 young adult/subadult. Possible Associated Funerary Objects found in this Cairn included 1 Huffaker arrowpoint with a missing tip, 1 biface, 36 flakes/debitage, 1 piece of burned limestone, about 370 faunal bone fragments, 4 pieces of shell, 3 containers of soil, 2 brass fragments, 1 22-caliber long rifle cartridge, and 1 shot gun shell base (brass, ca. 1900). The human remains had been disturbed from their original context by looting, so it is unknown if any of these objects were originally associated with the burial.	Mississippian & Possible Historic	Wood 1965a, 1992

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Cordwood Cairn	23PO304		4	Burial 1 was a primary interment and contained remains of a minimum of 3 individuals; Burial 2 was a primary interment and contained remains representing a minimum of one subadult; and Burial 3 was a bundle burial and contained remains of a minimum of 1 adult of indeterminate sex. Broadcast burials consisted of cranial and postcranial remains representing a minimum of 2 individuals. Furthermore, the records state that there was another burial, Burial 4, consisting of an infant. It is possible that the infant from this group is the infant from Burial 4, but that the bags in which the remains were stored were not labeled properly. Associated Funerary Objects from Burial 1 included 2 flakes, 2 dolomite ear spools, 172 shell-disk beads, approximately 103 *Marginella* shell beads, 2 perforated shells, 1 unmodified snail shell, and 1 soil sample. Associated Funerary Objects for Burial 2 included 152 large conch disk beads and 1 *Marginella* shell bead. Possible Associated Funerary Objects with Burial 4 included 2 faunal bone fragments. The bag containing these objects was labeled as coming from Burial 3. Possible Associated Funerary Objects from the broadcast burials consisted of 48 flakes, 1 vial of soil, and 1 bag of soil. Other Possible Associated Funerary Objects from the mound fill consisted of 1 Scallorn or Haskell arrowpoint, 1 large projectile point missing the tip, 1 projectile point tip, 1 chipped-stone ovoid core, 1 chipped-stone spall, 16 flakes/debitage, 77 faunal bone fragments, and 2 shell-disk beads.	Late Prehistoric	Wood 1965a; Wood and Brock 2000
Colline Mound/Burial	23PO305		1	Burial 1 was a partially cremated bundle burial and contained cranial and postcranial remains representing a minimum of 1 young adult/subadult. Possible Associated Funerary Objects consisted of 1 corner-notched projectile point base fragment, 1 rough biface, 3 unifaces, 154 flakes and tool fragments, 11 pieces of fire-cracked rock, 13 faunal bone fragments, and 2 containers of soil.	Afton Burial Complex – Late Archaic	Wood 1965a, 1985

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Slick Rock Mound	23PO306		8 burials & 10 broadcast burials, but only 6 were noted	Burial 1 contained remains of a minimum of 1 infant; Burial 2 was a cremation and contained remains of a minimum of 1 adult; Burial 3 was bundle burial and contained cranial and postcranial remains representing a minimum of 3 individuals; Burial 4 was a flexed primary interment and contained remains of a minimum of 4 individuals; Burial 5 was a primary inhumation and contained remains of a minimum of 4 individuals; and Burial 6 was a primary inhumation and contained remains of a minimum of 2 individuals. Cranial remains representing a minimum of 1 infant match the records description of part of Burial 7 (cranial and postcranial remains of an infant) and the Burial 8 individual (an infant skull in the mound fill), although the storage containers were not labeled as such. Broadcast Burial 1 consisted of the remains of a minimum of 1 adult; Broadcast Burials 6 and 7 contained cranial and postcranial remains representing a minimum of 1 adult; Broadcast Burial 10 contained remains representing a minimum of 1 adult; and Broadcast Burials 11 and 12 contained cranial and postcranial remains representing a minimum of 2 individuals. Human remains from the ossuary in the Mound consisted of cranial and postcranial remains representing a minimum of 1 young adult. The associated records for this mound did not indicate the presence of an ossuary. Its presence is indicated only by container labels. It is likely that this individual represents a broadcast burial, but this cannot be determined. Postcranial remains representing a minimum of 1 adult of indeterminate sex were collected during the original survey. These remains likely belong with one of the aforementioned individuals. Associated Funerary Objects with Burial 1 included 1 nearly complete deer bone awl in two pieces. Associated Funerary Objects with Burial 2 consisted of 1 burned bone awl or pin tip and 3 pieces of debitage. Associated Funerary Objects with Burial 4 consisted of 2 shell rings (one complete and one ¾ complete) and 1 smoothed, flat spatulate bone tool or ornament fragment. Associated Funerary Objects with Burial 5 included 1 unmodified deer cannon bone (in 2 pieces). Also see below discussion of Possible Associated Funerary Objects for Burial 6. Possible Associated Funerary Objects with Burial 1 included 1 miscellaneous stone. Possible Associated Funerary Objects with Burial 2 included 3 faunal bone fragments. Possible Associated Funerary Objects with Burial 3 included 2 faunal bone fragments and 1 vial of soil. Possible Associated Funerary Objects with Burial 4 included 17 faunal bone fragments. Possible Associated Funerary Objects with Burial 5 included 35 flakes, 1 tiny projectile point base fragment, 4 miscellaneous stones, 1 ceramic sherd, and 10 faunal bone fragments. Possible Associated Funerary Objects with Burial 6(?) included 1 faunal bone fragment, but shared a catalog number with Burial 5 and was located in a bag labeled as coming from Burial 5. In	Woodland	Wood 1965a; Wood and Brock 1984

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				addition, the records indicate that numerous artifacts were in direct association with the remains from Burial 5 including, 10 *Leptoxis* beads, 14 *Marginella* beads, and charred corn. These were not identified in the collection but may be represented, in part, in the materials described as mound fill below. Possible Associated Funerary Objects related to Broadcast Burial 1 included 2 flakes and 2 sherds from a sandstone vessel. Possible Associated Funerary Objects from Broadcast Burials 6 and 7 included 5 flakes, 5 flake tools, and 4 faunal bone fragments. Possible Associated Funerary Objects from Broadcast Burial 10 included 17 flakes, 3 flake tools, 1 piece of quartz, 17 faunal bone fragments, and 1 deer or elk incisor. Possible Associated Funerary Objects from Broadcast Burials 11 and 12 included 9 flakes, 12 flake tools, 1 horn-shaped fossil, 20 faunal bone fragments, and 7 shell fragments. Possible Associated Funerary Objects from the unidentifiable broadcast burials included 24 flakes, 12 flake tools, and 2 possible sandstone vessel sherds. Unidentified broadcast burials included cranial and postcranial remains representing a minimum of 4 individuals (1 adult possible female, 1 adult possible male, 1 adult of indeterminate sex, and 1 subadult). Possible Associated Funerary Objects found in the ossuary containers included 8 faunal bone fragments. Other Possible Associated Funerary Objects collected from the general mound fill consisted of 4 Scallorn arrowpoints, 1 corner-notched point, 1 point fragment, 1 triangular point, 1 reconstructed large point, 1 core, 2 chipped-stone drills, 5 pieces of debitage, 5 smoothed, tiny pebbles, 1 flat, smoothed bone spatulate tool or ornament fragment, 1 bone tool/pin fragment, 1 blunt bone awl or pin fragment, 5 tubular conch shell beads and bead fragments, 36 shell-disk beads and bead fragments, 60 *Leptoxis* shell beads and bead fragments, 16 *Marginella* shell beads and bead fragments, 6 unmodified conch shell fragments, 14 pieces of burned limestone, 37 faunal bone fragments, and 2 soil samples.		
King's Curtain Mound	23PO307		4	Burial 1 contained remains of a minimum of 2 individuals; Burial 2 contained remains representing a minimum of 2 individuals; Burial 3 contained remains of a minimum of 5 individuals; Burial 4/4A contained remains representing a minimum of 1 adult probable female; Burial 4B contained remains representing a minimum of 1 subadult; Burial 5 contained remains representing a minimum of 1 subadult; and Burial 6 contained remains of a minimum of 2 individuals. Broadcast burials consisted of cranial and postcranial remains representing a minimum of 4 individuals. Postcranial remains representing a minimum of 1 individual of indeterminate age and sex were collected during the original survey. It is likely these remains belong with one of the aforementioned individuals.	Late Prehistoric	Wood 1965a; Wood and Brock 2000

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Associated Funerary Objects from Burial 1 included 3 large conch shell-disk beads. Associated Funerary Objects from Burial 2 included 1 broken shell gorget, 1 large conch shell-disk bead, and 6 *Leptoxis* beads. Associated Funerary Objects from Burials 4/4A and 4B contained 1 very large reconstructed chipped-stone projectile point with points at both ends and 1 chipped-stone drill. Associated Funerary Objects found in Burial 5 included 1 restored undecorated globular jar/bowl with suspension holes. Possible Associated Funerary Objects from Burial 2 included 1 flake and 2 long bone medullary cavity soil samples. Possible Associated Funerary Objects from Burial 3 included 7 deer bone awl fragments and 6 faunal bone fragments. Possible Associated Funerary Objects from Burials 4/4A and 4B included 1 miscellaneous stone, 7 faunal bone fragments, and 1 soil sample from pit fill. Possible Associated Funerary Objects from Burial 5 included 7 faunal bone fragments and 1 long bone medullary cavity soil sample. Possible Associated Funerary Objects from Burial 6 included 1 flake and 1 small soil sample. Possible Associated Funerary Objects from the broadcast/scatter burials included 29 flakes/shatter, 1 uniface, 1 piece of fire-cracked rock, 1 miscellaneous stone, 2 pieces of red ochre, 1 shell fragment, 1 snail shell, 1 possible nutshell fragment, and 130 faunal bone fragments. Possible Associated Funerary Objects found in the same storage container as the unidentified remains included 1 piece of debitage. Other Possible Associated Funerary Objects recovered from the general mound fill consisted of 17 arrowpoints (10 Huffaker, 6 Scallorn, and 1 Reed), 3 bifaces, 13 projectile point/biface fragments, 1 ceramic or stone pipe bowl fragment (3 pieces glued together) approximately 221 *Leptoxis* shell beads and bead fragments, 24 *Marginella* shell beads and bead fragments, 1 small orange shell or bone bead, 31 conch shell-disk beads and bead fragments, 1 square shell bead with off-center hole, 1 rectangular shell bead, 1 long narrow conch shell bead, approximately 17 other shell beads and bead fragments, 1 large shell gorget with longitudinal hole, 4 shell fragments, 1 bone or shell fishhook missing its tip, 1 burnished flat awl or pin fragment, 1 bone pin, 1 bone awl or pin tip, 2 burnished bone awl or pin fragments, 2 pieces of turtle shell (1 stained blue-green), 4 faunal bone fragments, 1 piece of hematite, 6 bags of charred corn, and 4 soil samples.		
Unnamed	23PO308		1	Burial contained cranial and postcranial remains representing a minimum of 1 adult of indeterminate sex.	Unknown Prehistoric	Undetermined

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Possible Associated Funerary Objects found included 1 large chipped-stone flake, 1 small projectile point fragment (possible Huffaker arrowpoint base), and 8 faunal bone fragments.		
Unnamed	23PO312		1	Burial contained cranial remains representing a minimum of 1 individual of indeterminate age and sex. Possible Associated Funerary Objects found included 18 faunal bone fragments.	Unknown Prehistoric	Pangborn 1964c
Unnamed	23PO320		1	Burial contained postcranial remains representing a minimum of 1 subadult. Possible Associated Funerary Objects found included 5 ceramic sherds, 3 historic earthenware sherds, 2 ironstone sherds, and 5 faunal bone fragments. Other Possible Associated Funerary Objects recovered from the general mound fill consisted of 38 chipped-stone projectile points and point fragments, 35 bifaces and biface fragments, 4 unifaces and uniface fragments, 2 chipped-stone cores, approximately 239 flakes and shatter, and 5 historic ceramic sherds.	Unknown Prehistoric	Girard and Freeman 1992

Appendix D

NAGPRA Items from Truman Reservoir

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Wray Martin	23BE3	Mound 1	4	Burial 1 was a bundle burial; Burial 2 (minimum of 7 individuals) consisted of bundle and cremation burials; Burial 3 (minimum of 3 individuals) was unidentifiable; and Burial 4 (minimum of 4 individuals) involved broadcast burial or postdepositional disturbance of other burial interments. Associated Funerary Objects with Burial 1 consisted of 2 flakes, 1 bone awl fragment, 1 large scraper/chopper, and 2 soil samples. Associated Funerary Objects with Burial 2 consisted of 1 cut wolf mandible/maxilla, 2 antler awl/pin tips, 2 faunal bone fragments, 2 Rice Side Notched points, 1 Scallorn arrowpoint, 1 chipped-stone blade, and 1 chipped-stone gouge. Other Possible Associated Funerary Objects in this mound consisted of 1 bone awl or pin (in 2 pieces), 5 *Marginella* shell beads, 105 unmodified faunal fragments, 7 shell fragments, 98 chipped-stone tools and fragments (including Scallorn and Reed arrowpoints, Rice Side Notched and Lander points, scrapers, drills, cores, choppers, knives, bifaces, and flakes), and 1 miscellaneous rock.	Woodland	Wood 1965b, 1967
Fairfield Mound Group	23BE6	Mound 1	6	Burial 1 (2 individuals) was bundled or flexed; Burials 2 and 3 (minimum of 5 individuals) were comingled (Burial 2 was a bundle, but Burial 3 could not be ascertained); Burial 4 (minimum of 2 individuals) was a cremation; Burial 5 (minimum of 2 individuals) was a bundle burial; and broadcast burials (minimum of 8 individuals) or scattered remains from postdepositional disturbance. Associated Funerary Objects with Burial 1 consisted of 2 conch shell-disk beads and 1 bone awl tip. Associated Funerary Objects with Burial 2 consisted of 1 large copper or brass bead. Possible Associated Funerary Objects with Burial 1 consisted of 26 flakes, 7 projectile points (3 Cooper/affinis Snyders, 2 Rice Side Notched, 1 Scallorn, 1 indeterminate), 1 large broken biface, 1 mano, and 7 shell-disk beads. Possible associated burial objects with Burial 2 consisted of 2 projectile points (1 Cooper/affinis Snyders, 1 broken Rice Side Notched, 9 flakes, 2 pieces of groundstone, 2 disk beads, 46 faunal bone fragments, 1 shell bead or bead blank, 1 shell fragment, and 1 mother-of-pearl button.	Late Woodland/ Mississippian & Possible Osage	Wood 1961, 1965b, 1967

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Funerary Objects with Burial 4 consisted of 15 flakes, 1 chipped-stone knife fragment, and 8 faunal bone fragments; objects possibly associated with Burial 5 consisted of 25 flakes, 1 Scallorn arrowpoint, 1 fossil coral, 2 shell fragments, 28 faunal bone fragments, and 1 bone-disk bead. Other Possible Associated Funerary Objects found in the general mound fill consisted of 6 tubular bone beads, 22 bone-disk beads and bead fragments, 1 bone pendant (in 2 pieces), 1 oval bone bead, 7 shell-disk beads, 2 shell-bead blanks, 2 tubular shell beads, approximately 175 faunal bone fragments, 42 shell fragments, 32 projectile points and point fragments (11 Rice Side Notched, 8 Scallorn, 4 Cooper/affinis Snyders, 1 Gary, 2 Standlee/Langtry, 2 Table Rock, 1 Nodena, 3 indeterminate), 3 chipped-stone knife fragments, 5 chipped-stone scrapers, 6 bifaces and biface fragments, 2 hafted bifaces, 2 unifaces, 128 flakes/debitage, 2 pieces of groundstone, 5 pieces of hematite, and 2 vials of soil.		
Fairfield Mound Group	23BE6	Mound 2	5	Burial 1 (minimum of 4 individuals), Burial 3 (minimum of 3 individuals), and Burial 4 (minimum of 6 individuals) were ossuary burials with Burial 3 containing two bundle burials; Burial 2 (minimum of 4 individuals) was a scattered bundle burial. There were also broadcast burials (minimum of 4 individuals) or postdepositionally moved skeletal remains in Mound 2. Associated Funerary Objects with Burial 2 consisted of 11 chipped-stone triangular knives and knife fragments, 8 projectile points (3 Rice Side Notched, 5 Scallorn), 1 shale mammiform object, 1 conch shell gorget with incised jaguar design, 1 tubular conch shell gorget, and 1 deer antler base. Associated Funerary Objects found with Burial 3 consisted of 39 Scallorn arrowpoints.	Late Woodland/ Mississippian & Possible Osage	Wood 1961, 1965b, 1967

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Possible Associated Funerary Objects with Burial 1 consisted of 1 soil sample from the medullary cavity of a long bone, 1 chipped stone flake, 12 chipped stone projectile points and fragments (10 Scallorn, 1 Rice Side Notched, 1 indeterminate), 1 chipped stone biface fragment, 1 chipped stone scraper, 1 tubular bead, 28 faunal bone fragments, and 1 iron button or button cover. Possible Associated Funerary Objects with Burial 2 consisted of 72 chipped stone flakes, 15 chipped stone projectile points (6 Cooper, 1 Reed, 1 Fresno, indeterminate), 1 chipped stone drill, 1 groundstone abrader, 2 groundstone manos, 1 hammerstone, 1 prehistoric ceramic sherd, 19 conch shell disk beads, 1 tubular conch shell bead, 1 *Leptoxis* bead, 1 mussel shell fragment, 3 possible deer antler tine pressure flakers, 78 faunal bone fragments, 1 brass clip with hasp, and 1 fragment of a plastic comb. Possible Associated Funerary Objects with Burials 2 and 3 consisted of 79 chipped stone flakes, 19 chipped stone projectile points and point fragments (6 Rice Side Notched, 1 Cooper, 12 indeterminate), 3 chipped stone knife fragments, 1 chipped stone biface, 1 chipped stone scraper, 1 nutting stone, 27 faunal bone fragments, 2 bone pin fragments, 4 *Leptoxis* beads, 1 small, polished tubular conch shell bead, 1 multi-faceted cobalt blue glass bead, and 2 tin button covers or tinklers. Possible Associated Funerary Objects with Burial 4 consisted of 42 faunal bone fragments, 27 chipped stone flakes, 2 unidentified objects, and 9 soil samples from the medullary cavities of bones. Other Possible Associated Funerary Objects found in the general mound fill consist of approximately 575 chipped stone flakes, 142 chipped stone projectile points and point fragments (42 Rice Side Notched, 17 Cooper, 32 Scallorn, 8 Huffaker, 1 bottleneck, 1 re-sharpened Rice Side Notched, 41 indeterminate dart), 4 scrapers, 1 drill, 15 bifaces and fragments, 2 unifaces, 2 leaf-shaped knives and 7 knife fragments, 6 cores and core fragments, 4 calcite crystals, 1 quartzite pebble, 1 piece of fire-cracked rock, 3 pieces of red ochre, 1 hammerstone, 1 piece of groundstone, 1 miscellaneous stone, 8 conch shell disk beads, 63 shell fragments, 213 faunal fragments, 3 pollen samples in vials, 2 pieces of wood with copper stain, 1 brass earring with loop, ball, and cone, 1 multi-faceted cobalt blue glass bead, and 10 brass clips with hasps.		

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Fairfield Mound Group	23BE6	Mound 3	1	Broadcast burial (minimum of 4 individuals). Possible Associated Funerary Objects included approximately 2,034 flakes, 85 projectile points (16 Rice Side Notched, 9 Cooper/affinis Snyders, 2 Fresno, 2 Reed, 1 Sedalia, 1 Guffy-like, 2 Nodena, 1 Harrell/Cahokia, 1 Huffaker, 27 Scallorn, and 23 indeterminate), 47 bifaces and biface fragments, 1 uniface, 3 scrapers, 5 knife fragments, 2 drills, 5 pieces of red ochre, 1 calcite crystal, 26 shell-disk beads and bead fragments, 9 mussel shell fragments, 1 clam shell half, 11 *Leptoxis* shell fragments, 862 faunal fragments, 1 woven textile fragment, 3 brass tinklers, 4 brass clips with hasps, and 16 glass fragments.	Late Woodland/ Mississippian & Possible Osage	Wood 1961, 1965b, 1967
Fairfield Mound Group	23BE6	Mound 4	3	Cremation in Burial 1 (1 individual), scattered bundle in Burial 3 (minimum of 2 individuals), broadcast burial (minimum of 2 individuals). Associated Funerary Objects with Burial 1 consisted of 2 faunal bone fragments. Associated Funerary Objects with Burial 3 consisted of 1 *Olivella* shell bead and 1 Scallorn arrowpoint. Possible Associated Funerary Objects with Burial 3 consisted of 3 faunal bone fragments and 9 flakes. Possible Associated Funerary Objects recovered from the fill of Fairfield Mound 4 consisted of 91 flakes, 2 projectile points (1 Rice Side Notched and 1 Scallorn), 1 large biface or gouge with a missing tip, 1 biface fragment, 1 scraper, 8 *Leptoxis* shell beads, 1 cup marine shell tablet, 18 shell or bone-disk beads, 6 shell fragments, 30 faunal bone fragments, and 1 soil sample. Other Possible Associated Funerary Objects from the Fairfield Mound Group artifacts included 1 Rice Side Notched point, 1 re-sharpened Cooper/affinis Snyders point, 1 chipped-stone knife fragment, and 1 biface fragment; also found were 156 chert chunks and 8 faunal bone fragments.	Late Woodland/ Mississippian	Wood 1961, 1965b, 1967
Unnamed Cave	23BE108	Test Pit 3	1	A Test Pit 1 contained dental remains representing a minimum of 2 individuals.	Unknown	Keller 1965

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Karr's Camp Mound	23BE117		2	Burial 1 was a small concentration of broken bones. A broadcast burial area was also discovered in Karr's Camp Mound. Associated Funerary Objects with Burial 1 consisted of 4 *Leptoxis* shell beads, 2 shell-disk beads, 1 bone bead, 4 bone bead fragments, 2 possible shell beads, and 9 shell fragments. Possible Associated Funerary Objects with Burial 1 included 5 flakes, 1 bifacial core/scraper, and 2 miscellaneous stones. Other Possible Associated Funerary Objects recovered from the general mound fill consisted of 80 faunal bone fragments, 1 cut canid canine, 1 bone awl or pin tip, 2 pieces of hematite/red ochre, approximately 67 flakes, 1 chipped-stone drill, 2 chipped-stone scrapers, 5 bifaces and bifaces fragments, 2 chipped-stone knives and knife fragments, 1 unidentified point, 6 Scallorn arrowpoints, 2 Cooper/affinis Snyders points, 2 Rice Side Notched points, 19 miscellaneous stones, and 1 fossil.	Unknown Prehistoric	Wood 1965b, 1967
Devil's Bluff Mound	23BE118	Burial 1		Burial 1 was identified as cremation, but no Burial 1 was found labeled on the bags containing the remains, so this burial remains unconfirmed. Associated Funerary Objects consisted of 17 flakes, 1 projectile point tip, 3 Scallorn arrowpoints, and 4 pieces of hematite/red ochre. Possible Associated Funerary Objects consisted of approximately 65 flakes, 3 Rice Side Notched projectile points and fragments, 1 indeterminate Mississippian projectile point, 2 Scallorn arrowpoints and fragments, 2 dart points and fragments, 1 biface/scraper, 12 pieces of hematite/red ochre, 1 pebble, approximately 17 faunal bone fragments, 2 tubular bone beads, 2 *Leptoxis* shells and shell fragments, 10–12 pieces of burned wood, 1 bag and 3 vials of soil, and 1 packet of soil from the medullary cavity of the tibia.	Unknown Prehistoric	Wood 1965b, 1967
Bluff Cairn	23BE120		1	Possible Associated Funerary Objects consisted of 4 faunal bone fragments and 1 Rice Side Notched point.	Unknown Prehistoric	Pangborn 1962

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Rodgers Shelter	23BE125		3	Burial 1 was identified as a flexed primary interment. Burial 2 was a tightly flexed interment. Burial 3 was questionable as to type. Associated Funerary Objects with Burial 1 consisted of 2 chipped-stone scrapers, 2 projectile points (both incomplete), and 1 flake. Associated Funerary Objects with Burial 3 included 2 chipped-stone projectile point base fragments, 1 chipped-stone drill base, 1 nearly complete basal-notched point, 1 groundstone mano, 1 antler tool, and 1 squirrel tooth. Possible Associated Funerary Objects in Burial 1 consisted of 1 piece of faunal bone. Possible Associated Funerary Objects with Burial 2 consisted of 10 miscellaneous stones/pebbles, 1 chert chunk, approximately 20 tiny faunal bone fragments, and approximately 100 pieces of mollusk shell.	Late Archaic	Bass and Rhule 1976; McMillan 1965a
Wray Martin	23BE128	Mound 2	5	Burials 1 and 2 were small bundle burials. Burial 3 was determined to be a scattered burial. Burial 4 was a small concentration burial and Burial 5 was a broadcast burial. Associated Funerary Objects found with Burial 2 consisted of 1 copper/brass bead (probably of European manufacture) and 1 tubular conch shell bead. Possible Associated Funerary Objects with Burial 1 consisted of 4 faunal bone fragments and the mandible and teeth of a domestic dog. Possible Associated Funerary Objects with Burial 2 consisted of 6 faunal bone fragments, 1 snail shell, 11 flakes, 11 miscellaneous stones, 3 pieces of charcoal, 1 packet of soil from the ulnar medullary cavity, 3 historic stoneware sherds and 2 flakes. Possible Associated Funerary Objects with Burial 3 may have included 2 tubular bone/shell beads, 2 *Leptoxis* shell beads, and 2 copper/brass beads (of probable European manufacture).	Late Woodland/ Mississippian with intrusive Historic	Wood 1965b, 1967

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Other Possible Associated Funerary Objects recovered from the general fill and area of Mound 2 consisted of 13 flakes, 1 reworked flake, 2 scrapers, 1 chipped-stone blade, 1 stemmed Langtry point, 6 Scallorn arrowpoints, 2 Rice Side Notched points, 1 side-notched point base, 1 hafted biface, 1 drill, 2 pieces of hematite/red ochre, 42 faunal bone fragments, 2 bone-disk beads, 1 snail shell, 1 large historic stoneware sherd, and 1 soil sample.		
Melanin Mound 1	23BE135	Mound 1	5	Burial 1 was determined to be a small concentration of remains. Burial 2 and 4 were bundle burials. Burial 3 was determined to be a cremation burial. Also found in this Mound were Broadcast Burials. Associated Funerary Objects with Burial 1 included 1 convex end of a bifacial knife or blade. Associated Funerary Objects with Burial 2 included 1 *Leptoxis* bead. Possible Associated Funerary Objects with Burial 1 included 3 faunal bone fragments and 1 packet of soil from the medullary cavity of a long bone. Possible Associated Funerary Objects with Burial 2 were 1 faunal bone fragment and 2 packets of soil from the medullary cavity of a long bone. Possible Associated Funerary Objects with Burial 3 perhaps included 34 flakes, 12 pieces of miscellaneous stone, and 1 packet of soil from the medullary cavity of a long bone. Other Possible Associated Funerary Objects recovered from the general mound fill consisted of 151 flakes/debitage, 7 projectile points (1 Huffaker, 1 Cooper/affinis Snyders, 4 Scallorn, 1 Table Rock), 4 bifaces, 1 chipped-stone scraper, 9 *Leptoxis* beads, 2 tubular shell beads, 32 faunal bone fragments, and 3 bags of soil.	Unknown Prehistoric	Wood 1965b, 1967
Melanin Mound 2	23BE136	Mound 2	5	Burials 1 and 2 were determined to be cremation burials; Burial 3 was a scatter burial; and Burial 4 was considered an unknown burial as it was located under Burials 2 and 3 within the Mound. Broadcast burials were also found in Mound 2.	Unknown Prehistoric	Wood 1965b, 1967

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Possible Associated Funerary Objects found with Burial 1 included 5 biface fragments, 1 point base, 45 faunal bone fragments, and 7 packets of soil from the medullary cavities of long bones. Possible Associated Funerary Objects with Burial 2 included 3 flakes and 1 vial of soil. Possible Associated Funerary Objects with Burial 3 included 10 flakes, 1 broken knife or chopper, 8 miscellaneous stones, 4 pieces of possible yellow ochre (limonite), 9 shell fragments, 1 tiny shell-tempered sherd, and 13 faunal bone fragments. Possible Associated Funerary Objects with Unknown Burial (Burial 4?) included 2 faunal bone fragments, 1 miscellaneous stone, and 2 pieces of yellow ochre (limonite). Possible Associated Funerary Objects recovered with the presumed broadcast burials included 3 packets of soil from the medullary cavity of long bones. Other Possible Associated Funerary Objects recovered from the general mound fill and area consisted of approximately 50 flakes, 2 Guffy Lake points, 2 Rice Side Notched points (1 with a broken tip), 1 Cooper/affinis Snyders point, 3 projectile point fragments, 1 dart point, 1 biface fragment, 1 knife, 1 knife blank, 1 cobble with a worn groove around the center (possible net sinker), 13 shell fragments, 9 red/orange ferrous concretions, 2 rubbed red ochre (hematite) fragments, 10 turtle shell fragments, 9 faunal bone fragments, 1 disarticulated canid burial, and 1 land snail shell.		
Barren Cairn	23BE137		4	Burials 1 and 2 were partially cremated bundle burials; and Burial 3 type could not be determined as it was comingled with Burial 2. Unknown burials could have been identified as Burial 4, which could also have been called broadcast burials. Possible Associated Funerary Objects with Burial 1 consisted of 1 blade or projectile point base and 1 utilized flake. Possible Associated Funerary Objects with Burial 2 consisted of 1 piece of chert shatter, 1 miscellaneous stone, 1 faunal bone fragment, and 3 packets of soil from long bone medullary cavities. Other Possible Associated Funerary Objects recovered from the general mound fill consisted of 159 flakes/debitage, 4 projectile points and point fragments, 1 core/chopper/bifaces, 1 biface/knife, 4 scrapers, 1 nutting stone, 1 piece of red sandstone, 1 piece of galena, 1 clay/soil sample, 2 faunal bone fragments, 3 vials of pollen samples, and 1 bag of soil.	Unknown Prehistoric	Wood 1965b, 1987

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Boney Spring	23BE146		1	One burial of postcranial remains (one metatarsal shaft).	Woodland	Bass and McMillan 1973
	23BE800		1	One burial of postcranial remains from unknown provenience.	Unknown	Undetermined
Fielas Crawford Springs	unknown or not assigned		1	One burial.	Historic	Presumably Unpublished
White Sulphur Springs	unknown or not assigned		1	One burial of cranial remains (mandible fragment).	Historic	Presumably Unpublished
Don Bell Site/Camp	23HE1		1	One burial of cranial remains.	Unknown	Grimshaw 1965; Keller 1965
Mandrake Mound	23HE139		7	Burials 1 and 2 were primary extended burials; Burial 3 type was undetermined; Burial 4 was determined to be a bundle burial; Burial 5 was a cremation burial; and the type of Burial 6 was undetermined. Broadcast burials were also found in this mound. Associated Funerary Objects with Burial 3 consisted of only 1 possible flake scraper. Associated Funerary Objects with Burial 5 consisted of 4 burned limestone/sandstone pieces. Possible Associated Funerary Objects with Burial 1 consisted of 9 flakes, 1 miscellaneous stone, 1 shell fragment, and 3 packets of soil from long bone medullary cavities. Possible Associated Funerary Objects with Burial 2 consisted of 5 flakes, 1 shell fragment, and 1 packet of soil from a long bone medullary cavity. Possible Associated Funerary Objects with Burial 3 consisted of 2 flakes, 3 shell fragments, and 1 soil sample from the medullary cavity of a long bone(although items found in the same excavation square received the same catalog number as Burial 3, the bags were not labeled as from Burial 3). Possible Associated Funerary Objects with Burial 5 consisted of 2 faunal bone fragments. Possible Associated Funerary Objects from Burial 6 included 1 bag of soil. Possible Associated Funerary Objects found in the same bag as the broadcast burials, but lacking a direct association, consisted of 5 flakes and 1 miscellaneous stone.	Unknown	Wood 1967

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Other Possible Associated Funerary Objects recovered from mound fill, but not associated with any of the burials, included 3 Scallorn arrowpoints, 1 chipped-stone blade/knife, 1 piece of debitage, 1 hammerstone, 1 miscellaneous stone, 2 shell beads and bead fragments, 1 bone bead, 27 faunal bone fragments, 1 pollen sample from mound fill, and 1 pollen sample from base of mound.		
Chauncey Site	23HE145		1	Burial 1 was a primary flexed type. Associated funerary object with Burial 1 was 1 groundstone mano or hammerstone. Possible Associated Funerary Objects with Burial 1 consisted of 3 packets of soil from the medullary cavities of long bones and a groundstone mano or hammerstone.	Unknown	Pangborn 1965b
Gobbler's Knob Cairn	23HE147		3	Burial 1 was a bundle burial and Burial 2 was determined to be a primary, semi-flexed burial. Broadcast burials were also found. Possible Associated Funerary Objects with Burial 1 included 4 faunal bone fragments. Possible Associated Funerary Objects with Burial 2 included 38 miscellaneous stones, 7 faunal bone fragments, 1 small bag of charcoal, 3 sealed envelopes of soil samples from the medullary cavities of long bones, and 1 bag of soil. Other Possible Associated Funerary Objects found in the cairn that were not necessarily associated with any of the burials consisted of 33 flakes/debitage, 2 bifaces/projectile points, 8 miscellaneous stones, 1 burned clay, 1 piece of sandstone, 1 fossil, 24 faunal bone fragments, 3 land snail shells, 4 pieces of charcoal, 1 piece of iron, 2 pieces of wood, and 6 soil and pollen samples.	Unknown Prehistoric with intrusive Historic	Falk 1969
Mount Ilo Cairns	23HE148		1	1 Burial (only one of two cairns was excavated).	Unknown Prehistoric	Falk and Lippincott 1974

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
				Possible Associated Funerary Objects recovered from the general fill of the Mount Ilo cairns consisted of 1 Scallorn arrowpoint, 1 rough biface fragment, 1 chipped-stone core, 78 flakes/debitage, 9 pieces of sandstone or burned limestone, 2 miscellaneous stones, 343 faunal bone fragments, 64 snail shells, 6 nutshell fragments, 20 pieces of charcoal, and 1 bag and 2 chunks of soil.		
Eckardt Cairn	23HE150	Features 1–7 and H–7	9	Burial 1/Feature 1 was a cremation burial. Burial 2/Feature 2 was also a cremation burial. Burial 3/Feature 3, Burial 4/Feature 4. and Burial 5/Feature 5 were determined to be bundle burials. Burial 6/Feature 6 was a cremation and primary burial. Feature 7 was determined to be a secondary burial by the excavators and its presence is known only from bag labels containing the remains and artifacts. Feature H–7 had cranial and postcranial remains of 1 adult, although the associated records made no mention of Feature H–7. It's presence is known only from bag labels containing the remains and artifacts. Also included in this cairn were broadcast burials.	Unknown Prehistoric	Falk and Lippincott 1974
				Associated Funerary Objects in Burial 1/Feature 1 consisted of 4 *Marginella* shell beads and 2 *Leptoxis* shell beads. Associated Funerary Objects in Burial 2/Feature 2 included 1 crinoid fossil bead. Possible Associated Funerary Objects found in Burial 2/Feature 2 included 2 flakes, 1 piece of chipped-stone shatter, 7 miscellaneous stones, 1 small packet of soil from the medullary cavity of a long bone. Possible Associated Funerary Objects found in Burial 3/Feature 3 included 2 pieces of chipped-stone debris, 5 miscellaneous stones, and 2 small mammal bone fragments. Possible Associated Funerary Objects with Burial 4/Feature 4 included 2 flakes and 2 small mammal bones. Possible Associated Funerary Objects with Burial 5/Feature 5 included 2 shell beads. Possible Associated Funerary Objects with Burial 6/Feature 6 included 2 flakes and 2 miscellaneous stones. Possible Associated Funerary Objects collected from Feature 7 included 1 red-glazed ceramic sherd, 2 flakes, and 5 miscellaneous stones. Possible Associated Funerary Objects collected from H–7 consisted of 3 deer bone fragments and 6 small mammal bone fragments. Other Possible Associated Funerary Objects recovered from the general cairn fill consisted of 4 Scallorn arrowpoints, 23 pieces of debitage, 8 miscellaneous stones, approximately 100 faunal bone fragments, 2 bone awl tips, 1 bone-disk bead, 1 *Marginella* shell bead, 9 *Leptoxis* shell beads, and 1 bag of soil.		

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Phillips Spring Site	23HI216		1	Burial 1 contained dental remains of 1 molar.	Unknown	Robinson and Kay 1982
Beck Shelter	23HI247	Square 5, Feature 3	2	Burial 1 located in Square 5, had dental remains of 1 deciduous incisor; Burial 2 in Feature 3 had dental remains of 1 possible deciduous incisor. Possible Associated Funerary Objects from Square 5 included 106 faunal bone fragments; and Feature 3 had 180 faunal bone fragments.	Unknown	Chomko 1983
Rock House Cairn/Shelter	23SR021	Excavation Unit 5A–5B, L 7	2	Burial 1 type unknown. Additional human skeletal remains were found representing a minimum of 9 individuals from an unknown provenience and the box was labeled with "Most likely 23SR21." Possible Associated Funerary Objects included 1 flake.	Unknown	Keller 1965
Brounlee Shelter	23SR103		1	Burial (minimum of 3 individuals) type unknown.	Unknown	Chapman and Pangborn 1965; Keller 1965
Monteverdi Mound	23SR111		1	Burial has cranial representing a minimum of 1 adult and type of burial is unknown. Possible Associated Funerary Objects included 16 faunal bone fragments. Other Possible Associated Funerary Objects collected from the mound which may or may not be directly associated with the burial consisted of 1 Rice Side Notched point, 1 Waubesa point, 1 chipped-stone drill tip, 1 piece of debitage, and 110 faunal bone fragments.	Woodland	Wood 1965b, 1967
Harrison Shelter	23SR117		1	Burial contained cranial and postcranial remains of a minimum of 3 individuals. Type of burial was unknown. Possible Associated Funerary Objects included 20 faunal bone fragments, 2 burned sandstone pieces, and 3 flakes.	Unknown	Sudderth 1965

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Gray Shelter	23SR122	Feature 2 and Feature 3	1	Burial in Feature 2 contained cranial and postcranial remains of minimum of 2 individuals. Type of burial was unknown. Burial in Feature 3 had remains representing a minimum of 1 adult female with the burial type unknown. Additional human skeletal remains were found in various unidentified proveniences within the site and they represented a minimum of 4 individuals. Burial type was unknown. Possible Associated Funerary Objects in Feature 2 included 4 flakes. Possible Associated Funerary Objects in Feature 3 included 1 turtle carapace fragment and 2 deer bone fragments. Other Possible Associated Funerary Objects found within the shelter in the same proveniences as the human skeletal remains consisted of 3 flakes, 3 plain ceramic sherds, 1 turtle carapace fragment, and 4 faunal bone fragments.	Unknown	Chapman 1965a; Novick and Cantley 1983
Cat Hollow Shelter	23SR126	Square H–10, L 5	1	Burial 1 contained one thoracic vertebra from 1 adult. Type of burial unknown.	Unknown	Chapman 1965b
Magistrate Bluff Mound	23SR138	Feature 1	2	According to records, there were four discrete burials (Burials 1–4) and broadcast burials at this mound site. This was not apparent during the NAGPRA inventory, with only Feature 1 and apparent broadcast or unknown burials labeled on the storage containers. It is unknown if Feature 1 labeled on the storage containers correlates with Burial 1 from the records. Possible Associated Funerary Objects in Feature 1 consisted of 117 pieces of debitage and 3 pieces of limestone. Possible Associated Funerary Objects perhaps with the broadcast burials included 2 Rice Side Notched projectile points, 1 flake, and 3 faunal bone fragments. Other Possible Associated Funerary Objects recovered from the general mound fill consisted of 4 Rice Side Notched point fragments, 14 Scallorn arrowpoints, 2 small projectile points (probable Scallorn arrowpoints), 16 bifaces and biface fragments (2 are Crisp Ovate bifaces), 1 projectile point fragment, 2 chipped-stone drills, 3 unifaces, 8 pieces of debitage, 1 piece of black hematite, 17 pieces of red hematite, and 42 fragments of worked faunal bone and shell (beads, pendants, etc.).	Woodland	Wood 1965b, 1967

Site Name	Site No.	Area	No. of Burials	Burial Type and Associated Artifacts and Samples	Cultural Period	Reference
Briley Creek Mound	23SR141		2	Burial 1 type was not noted. Broadcast burials were of a scattered variety. Possible Associated Funerary Objects recovered from the general mound fill consisted of 17 projectile points/bifaces and fragments (7 Rice Side Notched, 1 leaf-shaped dart point, 1 small triangular, and 1 unidentified dart point missing base, 1 large biface base fragment, and 6 biface fragments), 1 drill missing tip, 3 oval blades, 1 blade tip, 1 core chopper, 1 chipped-stone scraper, 2 unifaces, 1 small, broken hammerstone, 463 flakes/debitage, 10 miscellaneous stones, 16 shell fragments, 1 polished faunal bone tool (reconstructed), and 232 faunal bone fragments.	Woodland	Wood 1965b, 1967