# OF MACOPIN PITS AND BISON

## ARCHAEOLOGICAL INVESTIGATIONS AT THE ERNAT SITE (11LS267) IN THE BIG BEND AREA, LASALLE COUNTY, ILLINOIS

#### Brian Adams

In the spring of 1987, archaeological excavations were conducted at the Ernat site (11LS267), a multicomponent occupation located in the Illinois River floodplain immediately east of Starved Rock State Park along State Route 71. Excavations yielded several pit and rock concentration features, including two possible basin structures, and rich lithic, ceramic, faunal and botanical assemblages, including evidence of bison exploitation and possible aquatic tuber roasting pits. Although artifacts and features indicate Early Archaic through Upper Mississippian/Late Prehistoric and possibly Contact-era occupations at the site, the majority of remains pertain to the Middle and Late Woodland periods. Of these, materials classified as Late Woodland Swanson and Starved Rock Collared predominate.

## Introduction

In the spring of 1987, archaeological excavations were conducted within a portion of the Ernat site (11LS267), a multicomponent habitation located in the floodplain on the south side of the Illinois River immediately east of Starved Rock State Park (Figure 1). As a result, several pit and rock concentrations and two possible basin structures were identified within the general midden deposits distributed across the site. Although preliminary field and laboratory identifications suggested Early Archaic through Upper Mississippian occupations, the majority of remains appear to pertain to the Middle and Late Woodland periods. Specifically, these include subsurface pits relating to the Havana tradition and subsequent Swanson phase and Des Plaines (Starved Rock Collared) complex. A later Late Woodland radiocarbon assay of cal A.D. 1019–1186

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(wood charcoal;  $1-\sigma$  range) was obtained from Feature 10. Based on this date and the presence of features yielding diagnostic material, the investigated portion of the Late Woodland component is considered the primary occupation represented at the Ernat site. As discussed below, this site provides important information on the Late Woodland occupation of the upper Illinois River valley.

## Natural Setting and Site Description

The site is located in LaSalle County, within the Grand Prairie Section of the Grand Prairie Natural Division (Schwegman 1973). More specifically, Ernat occupies a floodplain setting in the upper Illinois River valley, a deep trench that cuts through the

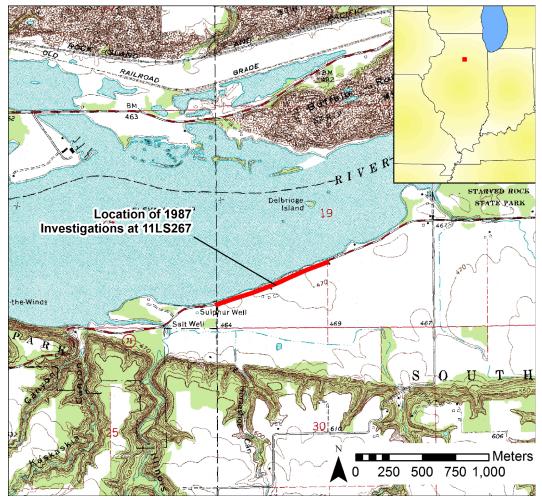


Figure 1. Location of the Ernat site (11LS267).

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glacial-till plains of northern Illinois created by the massive deglacial flooding event referred to as the Kankakee Torrent that occurred circa 16,000 years ago (Hajic 2000). The site is located approximately 400 m north of the bluff line and approximately 600 m northeast of the mouth of Illinois Canyon (see Figure 1), a deeply incised ravine connecting the Illinois River valley with the uplands to the south. The habitation complex lies on a "strath terrace," an erosional surface within the floor of the inner flood channel that developed in bedrock and till (Hajic 2000).

The 1828 General Land Office (GLO) map depicted the site area as grassland, with a roughly 1.5-mile-wide band of timber along the bluff to the south, beyond which was upland prairie (USGLO 1828). Soils at the site are classified as Faxon Series, which formed under a wet association of the tall-grass prairie (Natural Resources Conservation Service 2013a, 2013b). These and other data indicate that the aboriginal occupants likely lived in a resource-rich floodplain prairie, with an oak dominated deciduous forest to the south (Brown 1965; McNerney et al. 1985; Transeau 1935).

### **Results of Investigations**

This site was initially located by the Resource Investigation Program (RIP; now the Illinois State Archaeological Survey [ISAS]) in connection with the IDOT-sponsored FAP 627 (Illinois State Route 71) highway-widening project. During the initial survey and identification of 11LS267 in 1985, the site was within a cultivated field with 70 to 100 percent surface visibility. At that time, the surface scatter, which yielded 9 nondiagnostic prehistoric artifacts, was described as measuring 200 m east to west and minimally 30 m north to south. The site sketch map depicts the eastern boundary terminating at the Louis Ernat farm, but it along with the southern boundary is indefinite and labeled with question marks; the western boundary terminates at a dirt road.

In April 2012, David Keene recorded the standing structures at the Ernat farmstead as a separate site (11LS1104) as part of a proposed sand-mine project. Site 11LS1104 is located at the east edge of 11LS267 as originally described in 1985. Structures had existed at this location since at least 1870 (Thompson and Everts 1870) and continued to be depicted into the first half of the twentieth century (Alden, Ogle and Company 1892; Globe Map & Atlas Publishers 1937; Ogle and Company 1906; Ottawa Printing Company 1921; Warner and Beers 1876). The Ernat family acquired the property in the early 1940s (Keene 2012).

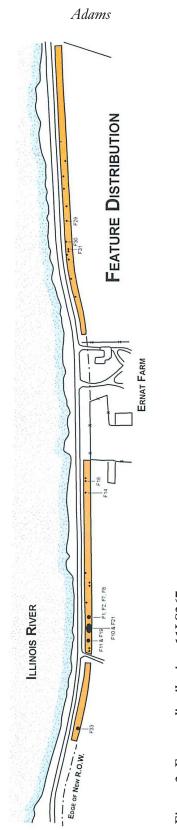
The 1987 investigations examined an area extending approximately 1,020 m northeast to southwest. This includes an area later reinvestigated by Kullen (2012a, 2012b) northeast of the Ernat farmstead that was subsequently combined with 11LS1104 as described by Keene (2012). For the purposes of the present paper, both 11LS267 and 11LS1104 are combined and discussed as a single site, and the Euro-American component is not discussed further. Based on Kullen's (2012a, 2012b) subsequent investigations, the site's boundary was extended a maximum of approximately 70 m southeast of Illinois State Route 71. The 1987 investigations examined about 10.2 percent (7,300 m<sup>2</sup> [1.8 acres]) of the entire site area. No prehistoric features were identified by subsurface testing in 2012 (Kullen 2012b).

Archaeological investigations in 1987 involved screened posthole testing, machineaided block excavation, test unit excavation, test trenching, and feature excavation. Initial investigations by posthole testing indicated an approximately 25 cm thick dark grayish-brown silt loam (10YR 4/2) plow zone overlying a roughly 15–25 cm thick very dark grayish-brown (10YR 3/2) silt loam midden deposit. Underlying the midden was a brown (10YR 5/3) sandy-loam subsoil. With one exception, all posthole tests were positive, producing a total of 620 artifacts. Of these, 273 (44 percent) were found within the plow zone and 347 (56 percent) were recovered from below the plow zone, indicating a potential for some degree of depositional integrity. Following plow zone removal by heavy machinery, the subsurface deposits were excavated in 5 cm levels. All soil was shovel skimmed and 10-liter flotation samples were collected from every 5 cm increment.

With the exception of Upper Mississippian ceramics, the distribution of diagnostic materials across the site area did not reveal any obvious temporal patterning (Figure 2). Archaic lithic materials and Middle/Late Woodland artifacts and features generally overlap within the investigated areas, although the density of material and features drops toward the east and west ends. The area west of the Ernat farmstead exhibits a somewhat higher density of materials from all periods, and it was here that Middle and Late Woodland features interpreted as structures were identified. Two Upper Mississippian sherds were also recovered in this area. A second, less dense, cluster of materials, again from all periods, is located immediately east of the Ernat farmstead. It was here that 14 (87 percent) of the 16 shell-tempered Upper Mississippian ceramic sherds were recovered. Of these, ten (71 percent) were found between approximately 100 m and 150 m east of the Ernat farmstead. The two artifact-cluster areas are correlated with slight topographic rises.

#### Features

Thirty-seven features were identified during archaeological investigations at 11LS267 (see Figure 2). Two of these consist of a historic Euro-American post mold (Feature 32) and pit feature (Feature 20) that are not considered further herein. The remaining 35 features relate to aboriginal occupations and include pits, rock and artifact concentrations, cooking facilities, and structures. These features were mapped in plan view, excavated by halves, and shovel skimmed. All profiles were drawn and photographed and 10-liter flotation samples were collected from each features (n = 23; 62 percent) were found west of the Ernat farmstead; the remaining 14 features occur to the east. Of the aboriginal features, 15 have been assigned to specific cultural or temporal periods (Table 1). Twenty features could not be assigned to specific cultural or temporal affiliations and are not discussed in detail here. Various attributes of all features are presented in Tables 2 and 3.





The Fish Lake site is characterized by numerous examples of ritual, gaming, and symbolic behavior (Fortier 2014a), a pattern noted at other LW sites in the American Bottom (Fortier 2014b). The location of the three features containing ABGs at Fish Lake provides further insight on ritual activity and social behavior within the community. Features 201, 245, and 253 are all bell-shaped pits but vary in their contents and spatial positioning. Feature 201 contained the passenger pigeon wing elements. It is situated at the south edge of a community yard that includes a cluster of six features that contained pipe and effigy figurine fragments, ceramic disks, a limestone discoidal, tobacco, and rubbed hematite (Fortier 2014a). Feature 245 is located in the center of a small courtyard in front of a group of keyhole structures. Five m to the east of this household yard is a cluster of six pits containing a plethora of ritual and exotic items (Fortier 2014a). This feature cluster is positioned at the southern edge of an open area separating two household yards; the open area likely represents a social or ritual precinct set aside for communal events. Feature 253 is situated in a small yard to the rear of a household group on the north side of the aforementioned communal precinct. Based on the contents and positioning of Features 245 and 253, it can be argued that different ritual activities were relegated to specific areas within the community. Certain dog sacrifices, such as that represented in Feature 245, occurred in a more public area, perhaps suggesting involvement by the larger community. Small-scale household feasting, including dog feasting as reflected in the Feature 253 deposit, in this instance appears to have been a more private event, perhaps restricted to closely related kin or family members. Similarly, the recovery of passenger pigeon wing feathers from Feature 201, a pit at the edge of a communal yard, may demonstrate regulated disposal of exhausted ritual paraphernalia in a prescribed location.

Discussions of Mississippian religion, ritual, and cosmology are widespread in the archaeological literature (e.g., Emerson 1989, 1997a, 2003; Hall 1997; Reilly and Garber 2007). Manifestations of power and ideology in Mississippian societies are remarkably demonstrative, as evident in the monumental architecture and landscaping, artifacts of power and symbolism, tribute and prestige goods, feasting refuse, and similar agents identified in the archaeological record (e.g., Baires 2014; Baltus 2014; Baltus and Baires 2012; Blitz 1993; Emerson 1997b; Emerson and Pauketat 2002, 2008; Lewis and Stout 1998; Pauketat 1994, 2013). Such outward displays of ceremony and ritual are, in general, not readily observed among earlier LW and TLW groups, but that does not mean that no such activities took place. Archaeological expressions of belief, agency, and ritual tend to be more subdued and subtle during the LW period (e.g., Fortier 2014a, 2015a; Kuehn 2014d). They occur at the individual and household/community-yard level at this time and are manifest in the modified faunal remains, human and animal effigy figurines, discoidals, pipes, and other ritual items recovered at Fish Lake, Reilley, Husted, Range, John H. Faust #2, and other American Bottom sites (e.g., Fortier 2014b, 2015b; Holley et al. 2001; Kelly et al. 1987). Between the LW and Mississippian periods, there is a strong shift in ritual behavior from the individual or household level to communal displays of power, ceremony, and agency. This pattern can be viewed as a reflection of the importance of religious-political symbolism and power for the Cahokian hierarchical elite.

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Zooarchaeological analysis has moved beyond the central focus on diet and resource procurement. Faunal material, in both modified and unmodified forms, contained ritual meaning, power, symbolism, and agency within prehistoric Native American cosmology. Animals were a significant, substantial aspect of daily life, existing within the natural and extranatural worlds. By extension, animal parts similarly manifested ritual and symbolic power. Although it may be difficult to discern the potential ritual importance of zooarchaeological material, conceptual awareness is a necessary initial step, followed by detailed study, analysis, and interpretation. The results can ultimately provide significant insight into past patterns of ritual and ceremonial behavior.

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### **References Cited**

Aftandilian, Dave

2007 Frogs, Snakes, and Agricultural Fertility: Interpreting Illinois Mississippian Representations. In What Are the Animals to Us? Approaches from Science, Religion, Folklore, Literature, and Art, edited by Dave Aftandilian, pp. 53–86. University of Tennessee Press, Knoxville.

## Baires, Sarah E.

2014 Religion, Complexity and Ridge-Top Mortuaries in the Mississippi River Valley. Unpublished Ph.D. dissertation, Department of Anthropology, University of Illinois at Urbana–Champaign.

### Baltus, Melissa R.

- 2014 Transforming Material Relationships: 13th Century Revitalization of Cahokian Religious-Politics. Unpublished Ph.D. dissertation, Department of Anthropology, University of Illinois at Urbana–Champaign.
- Baltus, Melissa R., and Sarah E. Baires
  - 2012 Elements of Ancient Power in the Cahokian World. *Journal of Social Archaeology* 12:167–192.
- Bell, Catherine
  - 1997 Ritual: Perspectives and Dimensions. Oxford University Press, New York.
- Benson, Erin M., and Joseph M. Galloy
- 2013 Ceramic Owl Effigies from Ancient East St. Louis. *Illinois Antiquity* 48(3):10–13. Berres, Thomas E.
  - 1996 Emergent Mississippian Faunal Assemblage. In The Marge Site: Late Archaic and Emergent Mississippian Occupations in the Palmer Creek Locality, edited by Andrew C. Fortier, pp. 307–320. American Bottom Archaeology FAI-270 Site Reports Vol. 27. University of Illinois Press, Urbana.
- Berres, Thomas E., David M. Stothers, and David Mather
  - 2004 Bear Imagery and Ritual in Northeast North America: An Update and Assessment of A. Irving Hallowell's Work. *Midcontinental Journal of Archaeology* 29:5–42.
- Betts, Matthew W., Susan E. Blair, and David W. Black
  - 2012 Perspectivism, Mortuary Symbolism, and Human-Shark Relationships on the Maritime Peninsula. *American Antiquity* 77:621–645.
- Betts, Matthew W., Mari Hardenberg, and Ian Stirling
  - 2015 How Animals Create Human History: Relational Ecology and the Dorset-Polar Bear Connection. *American Antiquity* 80:89–112.
- Blitz, John H.
  - 1993 Big Pots for Big Shots: Feasting and Storage in a Mississippian Community. *American Antiquity* 64:577–592.
- Bradley, Richard
  - 2003 A Life Less Ordinary: The Ritualization of the Domestic Sphere in Later Prehistoric Europe. *Cambridge Archaeological Journal* 13:5–23.
  - 2005 Ritual and Domestic Life in Prehistoric Europe. Routledge, London.
- Brizinski, Morris, and Howard Savage
  - 1983 Dog Sacrifices among the Algonkian Indians: An Example from the Frank Bay Site. *Ontario Archaeology* 39:33–40.
- Brown, James A.
  - 2007 On the Identity of the Birdman within Mississippian Period Art and Iconography. In *Ancient Objects and Sacred Realms: Interpretations of Mississippian Iconography*, edited by F. Kent Reilly, III and J. F. Garber, pp. 56–106. University of Texas Press, Austin.

- Brown, James A., Roger W. Willis, Mary A. Barth, and Georg K. Neumann
  - 1967 The Gentleman Farm Site, LaSalle County, Illinois. Reports of Investigations12. Illinois State Museum, Springfield.
- Brück, Joanna
  - 1999 Ritual and Rationality: Some Problems of Interpretation in European Archaeology. *European Journal of Archaeology* 2:313–344.
- Byrd, Brian F., Anna Cornellas, Jelmer W. Eerkens, Jeffery S. Rosenthal, Tim R. Carpenter, Alan Leventhal, and Jennifer A. Leonard
  - 2013 The Role of Canids in Ritual and Domestic Contexts: New Ancient DNA Insights from Complex Hunter-Gatherer Sites in Prehistoric Central California. *Journal of Archaeological Science* 40:2176–2189.
- Choyke, Alice
  - 2010 The Bone Is the Beast: Animal Amulets and Ornaments in Power and Magic. In Anthropological Approaches to Zooarchaeology: Colonialism, Complexity and Animal Transformations, edited by Douglas Campana, Pam Crabtree, Susan D. deFrance, Justin Lev-Tov, and Alice M. Choyke, pp. 197–209. Oxbow Books, Oxford.
- Cross, Paula G.
  - 1984 Vertebrate Faunal Remains from the Julien Site. In *The Julien Site*, edited by George R. Milner, pp. 223–243. American Bottom Archaeology FAI-270 Site Reports Vol. 7. University of Illinois Press, Urbana.
  - 1987 Animal Remains. In *The George Reeves Site*, edited by Dale L. McElrath and Fred A. Finney, pp. 357–385. American Bottom Archaeology FAI-270 Site Reports Vol. 15. University of Illinois Press, Urbana.
- Culin, Stewart
  - 1992 *Games of the North American Indians: 2. Games of Skill.* Bison Books, University of Nebraska Press, Lincoln.
- Dietler, Michael, and Brian Hayden
  - 2001 Feasts: Archaeological and Ethnographic Perspectives on Food, Politics, and Power. Smithsonian Institution Press, Washington, D.C.
- Dye, David H.
  - 1995 Feasting with the Enemy: Mississippian Warfare and Prestige Goods Circulation. In Native American Interactions: Multiscalar Analyses and Interpretations in the Eastern Woodlands, edited by Michael S. Nassaney and Kenneth E. Sassaman, pp. 289–316. University of Tennessee Press, Knoxville.
  - 2012 Mississippian Religious Traditions. In *The Cambridge History of Religions in America: 1. Pre-Columbian Times to 1790*, edited by Stephen J. Stein, pp. 137–155. Cambridge University Press, Cambridge.
- Emerson, Thomas E.
  - 1989 Water, Serpents, and the Underworld: An Exploration into Cahokian Symbolism. In *The Southeastern Ceremonial Complex: Artifacts and Analysis*,

edited by Patricia Galloway, pp. 45–92. University of Nebraska Press, Lincoln.

- 1997a Cahokian Elite Ideology and the Mississippian Cosmos. In *Cahokia: Domination and Ideology in the Mississippian World*, edited by Timothy R. Pauketat and Thomas E. Emerson, pp. 190–228. University of Nebraska Press, Lincoln.
- 1997b Cahokia and the Archaeology of Power. University of Alabama Press, Tuscaloosa.
- 2003 Crossing Boundaries Between Worlds: Changing Beliefs and Mortuary Practices at Cahokia. *The Wisconsin Archeologist* 84:73–80.
- Emerson, Thomas E., George R. Milner, and Douglas K. Jackson
  - 1983 *The Florence Street Site*. American Bottom Archaeology FAI-270 Site Reports Vol. 2. University of Illinois Press, Urbana.
- Emerson, Thomas E., and Timothy R. Pauketat
  - 2002 Embodying Power and Resistance at Cahokia. In *The Dynamics of Power*, edited by Maria O'Donovan, pp. 105–125. Occasional Paper No. 30. Center for Archaeological Investigations, Southern Illinois University, Carbondale.
  - 2008 Historical-Processual Archaeology and Culture Making: Unpacking the Southern Cult and Mississippian Religion. In *Belief in the Past: Theoretical Approaches to the Archaeology of Religion*, edited by David S. Whitley and Kelley Hays-Gilpin, pp. 167–188. Left Coast Press, Walnut Creek, California.
- Farnsworth, Kenneth B., and Karen A. Atwell
  - 2015 Excavations at the Blue Island and Naples-Russell Mounds and Related Hopewellian Sites in the Lower Illinois Valley. Research Report 34. Illinois State Archaeological Survey, Prairie Research Institute, University of Illinois at Urbana– Champaign.
- Farnsworth, Kenneth B., Terrance J. Martin, and Angela R. Perri
  - 2015 Modified Predator Mandible and Maxilla Artifacts and Predator Symbolism in Illinois Hopewell. Studies in Archaeological Material Culture 3. Illinois State Archaeological Survey, Prairie Research Institute, University of Illinois at Urbana–Champaign.
- Fishel, Richard L.
  - 1997 Medicine Birds and Mill Creek-Middle Mississippian Interaction: The Contents of Feature 8 at the Phipps Site (13CK21). *American Antiquity* 62:538–553.
- Fogelin, Lars, and Michael B. Schiffer
  - 2015 Rites of Passage and Other Rituals in the Life Histories of Objects. *Cambridge Archaeological Journal FirstView* August:1–13.
- Fortier, Andrew C.
  - 1984 Worked Bone Assemblage. In *The Fish Lake Site*, edited by Andrew C. Fortier, Richard B. Lacampagne, and Fred A. Finney, pp. 185–189. American Bottom Archaeology FAI-270 Site Reports Vol. 8. University of Illinois Press, Urbana.
  - 2014a Ritual, Gaming, and Symbolic Behavior. In *Late Woodland Communities in the American Bottom: The Fish Lake Site*, edited by Andrew C. Fortier, pp. 299–301.

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Research Report 28. Illinois State Archaeological Survey, Prairie Research Institute, University of Illinois at Urbana–Champaign.

- 2014b Late Woodland Communities in the American Bottom: The Fish Lake Site. Research Report 28. Illinois State Archaeological Survey, Prairie Research Institute, University of Illinois at Urbana–Champaign.
- 2015a Reilley-Husted Site Complex. In A Late Woodland Procurement and Ceremonial Complex at the Reilley and Husted Sites in the Northern American Bottom, edited by Andrew C. Fortier, pp. 249–250. Research Report 32. Illinois State Archaeological Survey, Prairie Research Institute, University of Illinois at Urbana–Champaign.
- 2015b A Late Woodland Procurement and Ceremonial Complex at the Reilley and Husted Sites in the Northern American Bottom. Research Report 32. Illinois State Archaeological Survey, Prairie Research Institute, University of Illinois at Urbana–Champaign.
- Fortier, Andrew C., and Douglas K. Jackson
  - 2000 The Formation of a Late Woodland Heartland in the American Bottom, Illinois cal A.D. 650–900. In *Late Woodland Societies: Tradition and Transformation across the Midcontinent*, edited by Thomas E. Emerson, Dale L. McElrath, and Andrew C. Fortier, pp. 123–148. University of Nebraska Press, Lincoln.
- Fox, William A., and J. Eldon Molto
  - 1994 The Shaman of Long Point. Ontario Archaeology 57:23-44.
- Griffin, James B., Richard E. Flanders, and Paul F. Titterington
  - 1970 *The Burial Complexes of the Knight and Norton Mounds in Illinois and Michigan.* Memoirs 2. Museum of Anthropology, University of Michigan, Ann Arbor.

## Hall, Robert L.

- 1997 An Archaeology of the Soul: Native American Indian Belief and Ritual. University of Illinois Press, Urbana.
- Hallowell, A. Irving
  - 1926 Bear Ceremonialism in the Northern Hemisphere. *American Anthropologist* 28:1–175.

## Harrington, Mark R.

1914 Sacred Bundles of the Sac and Fox Indians. University Museum Anthropological Publications 4(2). University of Pennsylvania, Philadelphia.

## Hayden, Brian

1996 Feasting in Prehistoric and Traditional Societies. In *Food and the Status Quest: An Interdisciplinary Perspective*, edited by Polly Wiessner and Wulf Schiefenhövel, pp. 127–147. Berghahn Books, Providence, Rhode Island.

Heckenberger, Michael J., James B. Petersen, Ellen R. Cowie, Arthur E. Spiess, Louise A. Basa, and Robert E. Stuckenrath

1990 Early Woodland Period Mortuary Ceremonialism in the Far Northeast: A View from the Boucher Cemetery. *Archaeology of Eastern North America* 18:109–144.

### Hill, Erica

- 2000 The Contextual Analysis of Animal Interments and Ritual Practice in Southwestern North America. *Kiva* 65:361–398.
- Hill, Jeremy D.
  - 1995 Ritual and Rubbish in the Iron Age of Wessex: A Study on the Formation of a Specific Archaeological Record. BAR Series 242. British Archaeological Reports, Oxford.
- Holley, George R., Kathryn E. Parker, Elizabeth M. Scott, Harold W. Watters, Jr., Julie N. Harper, Mikels Skele, Alan J. Brown, Donald L. Booth, Joyce A. Williams,

and Jennifer E. Ringberg

- 2001 *The Faust South Locality, Scott Joint-Use Archaeological Project,* Pt. I–V. Office of Contract Archaeology, Southern Illinois University at Edwardsville.
- Holt, Julie Zimmerman
  - 1996 Beyond Optimization: Alternative Ways of Examining Animal Exploitation. *World Archaeology* 28:89–109.
- Hornborg, Anne-Christine
  - 2006 Visiting the Six Worlds: Shamanistic Journeys in Canadian Mi'kmaq Cosmology. *Journal of American Folklore* 119:312–336.
- Hudson, Charles
  - 1976 The Southeastern Indians. University of Tennessee Press, Knoxville.
- Jackson, H. Edwin
  - 2015 Animals as Symbols, Animals as Resources: The Elite Faunal Record in the Mississippian World. In *Animals and Inequality in the Ancient World*, edited by Benjamin S. Arbuckle and Sue Ann McCarty, pp. 107–123. University Press of Colorado, Boulder.
- Jackson, H. Edwin, and Susan L. Scott
  - 1995 The Faunal Record of the Southeastern Elite: The Implications of Economy, Social Relations, and Ideology. *Southeastern Archaeology* 14:103–119.
- Jackson, H. Edwin, Susan L. Scott, and Frank F. Schambach
  - 2012 At the House of the Priest: Faunal Remains from the Crenshaw Site (3MI6), Southwest Arkansas. In *The Archaeology of the Caddo*, edited by Timothy K. Perttula and Chester P. Walker, pp. 47–85. University of Nebraska Press, Lincoln.
- Karr, Landon P., and L. Adrien Hannus
  - 2013 A Worked Bone Cache from the Mitchell Prehistoric Indian Village. *South Dakota Archaeology* 28:1–16.
- Kelly, John E., James A. Brown, Jenna M. Hamlin, Lucretia S. Kelly, Laura Kozuch, Kathryn Parker, and Julieann Van Nest
  - 2007 Mound 34: The Context for the Early Evidence of the Southeastern Ceremonial Complex at Cahokia. In *Southeastern Ceremonial Complex: Chronology, Content, and Context*, edited by Adam King, pp. 57–87. University of Alabama Press, Tuscaloosa.

Kelly, John E., Andrew C. Fortier, Steven J. Ozuk, and Joyce A. Williams

- 1987 *The Range Site: Archaic through Late Woodland Occupations*. American Bottom Archaeology FAI-270 Site Reports Vol. 16. University of Illinois Press, Urbana.
- Kelly, John E., Kathryn E. Parker, and Lucretia S. Kelly
  - 2005 Lohmann Phase Feature 418. In The Archaeology of the East St. Louis Mound Center: I. The Southside Excavations, edited by Timothy R. Pauketat, pp. 57–112. Transportation Archaeological Research Reports 21. Illinois Transportation Archaeological Research Program, University of Illinois at Urbana–Champaign.
- Kelly, Lucretia S.
  - 1984 Faunal Remains. In *The Fish Lake Site*, edited by Andrew C. Fortier, Richard B. Lacampagne, and Fred A. Finney, pp. 199–213. American Bottom Archaeology FAI-270 Site Reports Vol. 8. University of Illinois Press, Urbana.
  - 1987 Patrick Phase Faunal Materials. In *The Range Site: Archaic through Late Wood-land Occupations*, edited by John E. Kelly, Andrew C. Fortier, Steven J. Ozuk, and Joyce A. Williams, pp. 350–400. American Bottom Archaeology FAI-270 Site Reports Vol. 16. University of Illinois Press, Urbana.
  - 1990a Dohack Phase Faunal Analysis. In *The Range Site 2: The Emergent Mississippian Dohack and Range Phase Occupations*, edited by John E. Kelly, Steven J. Ozuk, and Joyce A. Williams, pp. 237–265. American Bottom Archaeology FAI-270 Site Reports Vol. 20. University of Illinois Press, Urbana.
  - 1990b Range Phase Faunal Analysis. In *The Range Site 2: The Emergent Mississippian Dohack and Range Phase Occupations*, edited by John E. Kelly, Steven J. Ozuk, and Joyce A. Williams, pp. 487–511. American Bottom Archaeology FAI-270 Site Reports Vol. 20. University of Illinois Press, Urbana.
  - 1991 Sponemann Phase Fauna. In *The Sponemann Site: The Formative Emergent Mississippian Sponemann Phase Occupations*, edited by Andrew C. Fortier, Thomas O. Maher, and Joyce A. Williams, pp. 421–440. American Bottom Archaeology FAI-270 Site Reports Vol. 23. University of Illinois Press, Urbana.
  - 2001 A Case of Ritual Feasting at the Cahokia Site. In *Feasts: Archaeological and Ethnographic Perspectives on Food, Politics, and Power*, edited by Michael Dietler and Brian Hayden, pp. 334–367. Smithsonian Institution Press, Washington, D.C.
  - 2005 Stirling Phase Faunal Remains. In *The Archaeology of the East St. Louis Mound Center: I. The Southside Excavations*, edited by Timothy R. Pauketat, pp. 257–266. Transportation Archaeological Research Reports 21. Illinois Transportation Archaeological Research Program, University of Illinois at Urbana–Champaign.
  - 2007a George Reeves Phase Faunal Analysis. In *The Range Site 4: Emergent Mississippian George Reeves and Lindeman Phase Occupations*, edited by John E. Kelly, Steven J. Ozuk, and Joyce A. Williams, pp. 175–203. Transportation

Archaeological Research Reports 18. Illinois Transportation Archaeological Research Program, University of Illinois at Urbana–Champaign.

- 2007b Lindeman Phase Faunal Analysis. In *The Range Site 4: Emergent Mississippian George Reeves and Lindeman Phase Occupations*, edited by John E. Kelly, Steven J. Ozuk, and Joyce A. Williams, pp. 423–451. Transportation Archaeological Research Reports 18. Illinois Transportation Archaeological Research Program, University of Illinois at Urbana–Champaign.
- 2010a A Bird's Eye View of Ritual at the Cahokia Site. In *Anthropological Approaches to Zooarchaeology: Colonialism, Complexity and Animal Transformations*, edited by Douglas Campana, Pam Crabtree, Susan D. deFrance, Justin Lev-Tov, and Alice M. Choyke, pp. 1–11. Oxbow Books, Oxford.
- 2010b Beyond Food: The Role of Animals in Ritual and Ideology. *Illinois Antiquity* 45(3):8–10.
- Kelly, Lucretia S., and John E. Kelly
  - 2007 Swans in the American Bottom during the Emergent Mississippian and Mississippian. *Illinois Archaeology* 15/16:112–141.
- Kerber, Jordan E.
  - 1997 Native American Treatment of Dogs in Northeastern North America: Archaeological and Ethnohistorical Perspectives. *Archaeology of Eastern North America* 25:81–96.
- Kinietz, W. Vernon
  - 1965 *The Indians of the Western Great Lakes*, *1615–1760.* Ann Arbor Paperbacks, University of Michigan Press, Ann Arbor.
- Koerper, Henry C., and Nancy A. Whitney-Desautels
  - 1999 Astragalus Bones: Artifacts or Ecofacts? *Pacific Coast Archaeological Society Quarterly* 35(2–3):69–80.
- Kuehn, Steven R.
  - 1999 Analysis of the Faunal Remains from the McGraw Farm Site (11L386), Lake County, Illinois. In *Results of Phase III Archaeological Mitigation of the McGraw Farm Site (11L386), Cuba Township, Lake County, Illinois*, edited by Paula J. Porubcan and Rochelle Lurie, pp. 185–194. Cultural Resource Management Report 621. Midwest Archaeological Research Services, Inc., Harvard, Illinois.
  - 2009 Faunal Analysis, Souffle de Caverne Site (11R579), Randolph County, Illinois. Report on file, Illinois State Archaeological Survey, University of Illinois at Urbana–Champaign.
  - 2012 Curtis Steinberg Road (11S823) Faunal Analysis, St. Clair County, Illinois. Report on file, Illinois State Archaeological Survey, Prairie Research Institute, University of Illinois at Urbana–Champaign.
  - 2013 Faunal Remains. In *The Archaeology of Downtown Cahokia II: The 1960 Exca*vation of Tract 15B, edited by Timothy R. Pauketat, pp. 275–298. Studies in Archaeology 8. Illinois State Archaeological Survey, Prairie Research Institute, University of Illinois at Urbana–Champaign.

- 2014a Faunal Analysis. In *Late Woodland Communities in the American Bottom: The Fish Lake Site*, edited by Andrew C. Fortier, pp. 249–273. Research Report 28. Illinois State Archaeological Survey, Prairie Research Institute, University of Illinois at Urbana–Champaign.
- 2014b Faunal Data. In Transforming Material Relationship: 13th Century Revitalization of Cahokian Religious-Politics, by Melissa R. Baltus, pp. 537–613. Unpublished Ph.D. dissertation, Department of Anthropology, University of Illinois at Urbana–Champaign.
- 2014c Prehistoric Dog Pathology in the American Bottom: Evidence from the Janey B. Goode Site (11S1232), St. Clair County, Illinois. *Illinois Archaeology* 26:97–129.
- 2014d Looking Beyond Diet: Faunal Remains and Ritual Behavior in the American Bottom. Paper presented at the 58th Annual Midwest Archaeological Conference, University of Illinois at Urbana–Champaign.
- 2015 Faunal Assemblage. In A Late Woodland Procurement and Ceremonial Complex at the Reilley and Husted Sites in the Northern American Bottom, edited by Andrew C. Fortier, pp. 107–130. Research Report 32. Illinois State Archaeological Survey, Prairie Research Institute, University of Illinois at Urbana–Champaign.
- Lewis, R. Barry, and Charles Stout
  - 1998 Mississippian Towns and Sacred Spaces: Searching for an Architectural Grammar. University of Alabama Press, Tuscaloosa.
- Lewis, Thomas M. N., and Madeline K. Lewis
  - 1961 Eva: An Archaic Site. University of Tennessee Press, Knoxville.
- Melbye, F. Jerome
  - 1963 *The Kane Burial Mounds*. Archaeological Salvage Report 15. Southern Illinois University Museum, Carbondale.
- Milner, George R.
  - 1983 *The East St. Louis Stone Quarry Site Cemetery*. American Bottom Archaeology FAI-270 Site Reports Vol. 1. University of Illinois Press, Urbana.
  - 1984 Social and Temporal Implications of Variation among American Bottom Mississippian Cemeteries. *American Antiquity* 49:468–488.

Miracle, Preston

- 1998 Faunal Remains. In The Archaeology of Downtown Cahokia: The Tract 15A and Dunham Tract Excavations, edited by Timothy R. Pauketat, pp. 309–331. Studies in Archaeology 1. Illinois Transportation Archaeological Research Program, University of Illinois at Urbana–Champaign.
- Morris, James
  - 2008 Associated Bone Groups: One Archaeologist's Rubbish Is Another's Ritual Deposition. In *Changing Perspectives on the First Millennium B.C.*, edited by Oliver Davis, Kate Waddington, and Niall Sharples, pp. 83–98. Oxbow Books, Oxford.
  - 2011 Investigating Animal Burials: Ritual, Mundane and Beyond. BAR Series 535. British Archaeological Reports, Oxford.

- Muir, Robert J., and Jonathan C. Driver
  - 2004 Identifying Ritual Use of Animals in the Northern American Southwest. In *Behaviour Behind Bones: The Zooarchaeology of Ritual, Religion, Status and Identity*, edited by Sharyn Jones O'Day, Wim Van Neer, and Anton Ervynck, pp. 128–143. Oxbow Books, Oxford.

## Oberholtzer, Cath

2002 Fleshing Out the Evidence: From Archaic Dog Burials to Historic Dog Feasts. Ontario Archaeology 73:3–14.

## Parker, Arthur C.

1909 Secret Medicine Societies of the Seneca. *American Anthropologist* 11:161–185. Parmalee, Paul W.

- 1957 Vertebrate Remains from the Cahokia Site, Illinois. *Transactions of the Illinois* State Academy of Science 50:235–242.
- 1959 Use of Mammalian Skulls and Mandibles by Prehistoric Indians of Illinois. *Transactions of the Illinois State Academy of Science* 52:85–95.
- 1967 Additional Noteworthy Records of Birds from Archaeological Sites. *The Wilson Bulletin* 79:155–162.
- 1975 A General Summary of the Vertebrate Fauna from Cahokia. In *Perspectives in Cahokia Archaeology*, edited by James A. Brown, pp. 137–155. Bulletin 10. Illinois Archaeological Survey, Urbana.
- Parmalee, Paul W., and Denzil Stephens
  - 1972 A Wolf Mask and Other Carnivore Skull Artifacts from the Palestine Site, Illinois. *Pennsylvania Archaeologist* 42(1–2):71–74.
- Pauketat, Timothy R.
  - 1994 The Ascent of Chiefs: Cahokia and Mississippian Politics in Native North America. University of Alabama Press, Tuscaloosa.
  - 2013 An Archaeology of the Cosmos: Rethinking Agency and Religion in Ancient America. Routledge, London.
- Pauketat, Timothy R., Lucretia S. Kelly, Gayle J. Fritz, Neal H. Lopinot, and Eve Hargrave
  2002 The Residues of Feasting and Public Ritual at Early Cahokia. *American Antiquity* 67:257–279.
- Pluckhahn, Thomas J., J. Matthew Compton, and Mary Theresa Bonhage-Freund 2006 Evidence of Small-Scale Feasting from the Woodland Period Site of Kolomoki, Georgia. *Journal of Field Archaeology* 31:263–284.

Prahl, Earl J.

1967 Prehistoric Dogs of Michigan. *The Michigan Archaeologist* 13(1):13–27. Reed, Nelson A.

- 2009 Excavations on the Third Terrace and Front Ramp of Monks Mound, Cahokia: A Personal Narrative. *Illinois Archaeology* 21:1–89.
- Reilly, F. Kent, III, and James F. Garber (editors)
  - 2007 Ancient Objects and Sacred Realms: Interpretations of Mississippian Iconography. University of Texas Press, Austin.

Rowan, Yorke M.

- 2012 Beyond Belief: The Archaeology of Religion and Ritual. *Archaeological Papers* of the American Anthropological Association 21(1):1–10.
- Russell, Nerissa
  - 2012 Social Zooarchaeology: Humans and Animals in Prehistory. Cambridge University Press, Cambridge.
- Santure, Sharon K., and Duane Esarey
  - 1990 Analysis of Artifacts from the Oneota Mortuary Component. In Archaeological Investigations at the Morton Village and Norris Farms 36 Cemetery, edited by Sharon K. Santure, Alan D. Harn, and Duane Esarey, pp. 75–110. Reports of Investigations 45. Illinois State Museum, Springfield.
- Schwartz, Marion

1997 *A History of Dogs in the Early Americas*. Yale University Press, New Haven. Scott, Elizabeth S.

- Faunal Remains. In Late Woodland Frontiers: Patrick Phase Settlement along the Kaskaskia Trail, Monroe County, Illinois, edited by Brad Koldehoff and Joseph M. Galloy, pp. 159–165. Transportation Archaeological Research Reports 23. Illinois Transportation Archaeological Research Program, University of Illinois at Urbana–Champaign.
- 2007 Faunal Remains. In The Archaeology of the East St. Louis Mound Center, Part II: The Northside Excavations, edited by Andrew C. Fortier, pp. 769–776. Transportation Archaeological Research Reports 22. Illinois Transportation Archaeological Research Program, University of Illinois at Urbana– Champaign.
- Scott, Susan L., and H. Edwin Jackson
  - 1998 Early Caddo Ritual and Patterns of Animal Use: An Analysis of Faunal Remains from the Crenshaw Site (3MI6), Southwestern Arkansas. *The Arkansas Archeologist* 37:1–37.
- Seeman, Mark F.
  - 2007 Predatory War and Hopewell Trophies. In *The Taking and Displaying of Human Body Parts as Trophies by Amerindians*, edited by Richard J. Chacon and David H. Dye, pp. 167–189. Springer, New York.

Serjeantson, Dale

- 2009 Birds. Cambridge Manuals in Archaeology, Cambridge University Press, Cambridge.
- Skinner, Alanson
  - 1913 Social Life and Ceremonial Bundles of the Menomini Indians. Anthropological Papers 8(1):1–165. American Museum of Natural History, New York.
- Stewart, Andrew M., Darren Keith, and Joan Scottie
  - 2004 Caribou Crossings and Cultural Meanings: Placing Traditional Knowledge and Archaeology in Context in an Inuit Landscape. *Journal of Archaeological Method and Theory* 11:183–211.

### Strong, John A.

1989 The Mississippian Bird-Man Theme in Cross-Cultural Perspective. In *The Southeastern Ceremonial Complex: Artifacts and Analysis*, edited by Patricia Galloway, pp. 211–238. University of Nebraska Press, Lincoln.

### Swanton, John R.

- 1946 *The Indians of the Southeastern United States*. Bulletin 137. Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.
- Ubelaker, Douglas H., and Waldo R. Wedel
  - 1975 Bird Bones, Burials, and Bundles in Plains Archaeology. *American Antiquity* 40:444–452.
- Valera, António Carlos, and Cláudia Costa
  - 2013 Animal Limbs in Funerary Contexts in Southern Portugal and the Question of Segmentation. *Anthropozoologica* 48(2):263–275.

### VanDerwarker, Amber M.

- 1996 Domestic Dogs in the Diet: An Analysis of Canid Fauna from the Halliday Site, an Early Mississippian Upland Village in the American Bottom. Paper presented at the 53rd Annual Southeastern Archaeological Conference, Birmingham, Alabama.
- 1999 Feasting and Status at the Toqua Site. Southeastern Archaeology 18:24–34.
- Wallis, Neill J., and Meggan E. Blessing
  - 2015a Big Feasts and Small Scale Foragers: Pit Features as Feast Events in the American Southeast. *Journal of Anthropological Archaeology* 39:1–18.
  - 2015b Ritualized Deposition and Feasting Pits: Bundling of Animal Remains in Mississippi Period Florida. *Cambridge Archaeological Journal* 25:79–98.
- Weismantel, Mary, and Lynn Meskell
  - 2014 Substances: "Following the Material" through Two Prehistoric Cases. *Journal* of Material Culture 19:233–251.
- Zedeño, María Nieves
  - 2008 Bundled Worlds: The Roles and Interactions of Complex Objects from the North American Plains. *Journal of Archaeological Method and Theory* 15:362–378.
  - 2009 Animating by Association: Index Objects and Relational Taxonomies. *Cambridge Archaeological Journal* 19:407–417.

### Zelin, Alexey

2010 Zoomorphic Effigies from the Fish Lake Site. *Illinois Archaeology* 22:705–725.

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