

## Cosmic negotiations: Cahokian religion and Ramey Incised pottery in the northern hinterland

Christina M. Friberg

To cite this article: Christina M. Friberg (2017): Cosmic negotiations: Cahokian religion and Ramey Incised pottery in the northern hinterland, *Southeastern Archaeology*, DOI: [10.1080/0734578X.2017.1378986](https://doi.org/10.1080/0734578X.2017.1378986)

To link to this article: <http://dx.doi.org/10.1080/0734578X.2017.1378986>



Published online: 25 Sep 2017.



Submit your article to this journal [↗](#)



View related articles [↗](#)



View Crossmark data [↗](#)

---



# Cosmic negotiations: Cahokian religion and Ramey Incised pottery in the northern hinterland

Christina M. Friberg

Department of Anthropology, University of California, Santa Barbara, CA, USA

## ABSTRACT

Cahokia's cultural influence altered patterns of social organization throughout the Midwest, and this complex historical process warrants further interregional research. Ramey Incised jars were cosmograms through which Cahokians attempted to frame relationships among different social groups and the broader cosmos. The exchange, and subsequent emulation, of these ritually charged vessels provided opportunities for hinterland groups to do the same. But did hinterland Mississippian peoples adopt a Cahokian understanding of the cosmos wholesale or reinterpret it based on local understandings and histories? To address this question, this paper examines variation in Ramey Incised iconographic motifs and design fields from the Lower Illinois River valley, Central Illinois River valley, Apple River valley, and the Aztalan site (47JE1). The data are then statistically compared with Emerson's typology from the American Bottom, highlighting ground-level patterns of material variation which can be used to interpret the ways in which local peoples negotiated the spread of dominant ideologies and religious practices. Analysis of these patterns suggests regional differences in the perceived composition and structure of the cosmos and reveals the power of local worldviews in culture contact scenarios.

## ARTICLE HISTORY

Received 22 May 2017  
Accepted 10 September 2017

## KEYWORDS

Archaeology of religion;  
Mississippian cosmology;  
Cahokia; pottery;  
iconography

Archaeological investigations of cross-cultural interactions show the many ways in which aspects of a dominant political culture are adopted or altered, highlighting the entanglement of local and nonlocal practices. But in examining the spread of ideas and values from complex and influential polities to hinterland areas, scholars of culture contact must also consider the role religious ceremonialism and symbolism played in the process. The Cahokian phenomenon in the northern Midwest is a notable yet incompletely understood example of culture contact in ancient North America. Interactions between inhabitants of the Cahokia site (11MS2) and neighboring regions in the first century of Cahokia's existence (AD 1050–1150) led to major changes in social organization throughout the Midwest and Midsouth. While some scholars focus more on the political-economic aspects of these interactions (Milner 1998; Muller 1997), it is clear that many of these interactions had strong religious characteristics and implications (Brown and Kelly 2000; Conrad 1991; Emerson 1989; Emerson 1991a; Emerson and Lewis 1991; Fowler et al. 1999; Hall 1991; Kelly 1991; Knight et al. 2001; Pauketat 1997; Pauketat 2004; Wilson 2011). In an era of increasing social complexity, Cahokians relied on religious ceremonies and ritual objects to frame relationships among different social groups and the places, things, and supernatural forces

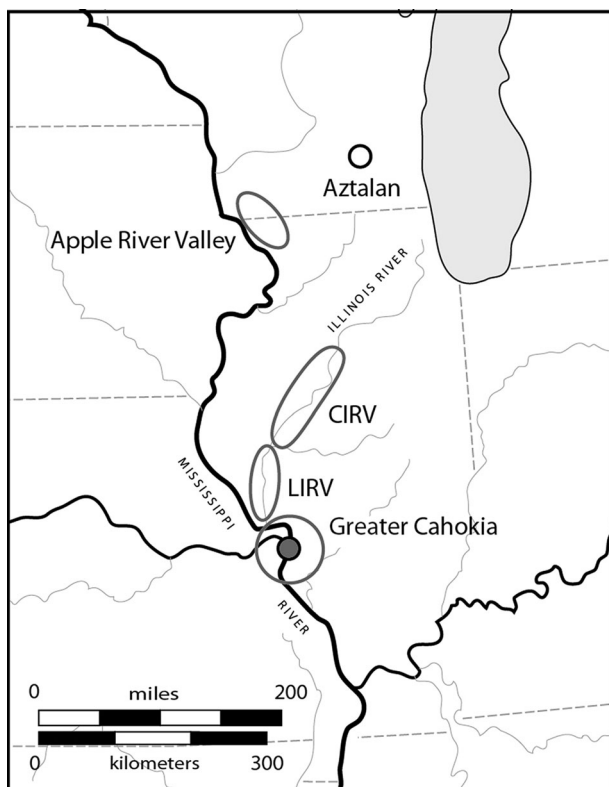
comprising the broader cosmos (Alt and Pauketat 2007; Emerson et al. 2008; Emerson and Pauketat 2008; Pauketat 1997; Pauketat 2002; Pauketat 2003; Pauketat 2010; Pauketat 2013; Wilson 1996). Many groups in contact with Cahokia seem to have done the same; twelfth-century settlements in numerous portions of the northern Midwest – henceforth referred to as the northern hinterland – possessed Cahokia-inspired ritual buildings, cosmographic objects, and other aspects of religious ceremonialism (Alt 2002; Baires 2014; Brown 2003; Conrad 1991; Conrad 1993; Emerson 1989, Emerson 1991a; Emerson 1997a; Fowler et al. 1999; Hall 1991; Iseminger 2010; Kelly et al. 2007; Knight 1989; Pauketat 2004; Pauketat 2010; Pauketat 2013; Pauketat et al. 2002; Pauketat et al. 2012; Reilly 2004; Wilson 2011). The question remains whether hinterland Mississippian peoples adopted a Cahokian understanding of the cosmos wholesale, or reinterpreted it based on local understandings and histories. To address this question, this paper examines interregional stylistic variation in the iconographic Ramey Incised jar.

Ramey Incised jars are dark slipped and shell tempered, with sharp-angled shoulders, generally rounded lips, and incised motifs of political and religious significance (Figure 1; Emerson 1989; Emerson 1997a; Griffin 1949; Griffith 1981; Pauketat 1997; Pauketat and



**Figure 1.** Reconstructed Ramey Incised jar (image courtesy of Cahokia Mounds State Historic Site).

Emerson 1991). They began to be produced and distributed during the early twelfth-century AD at Cahokia, the era during which Woodland groups to the north were adopting aspects of Mississippian culture; the pots subsequently became less popular in the American Bottom around the time of Cahokia's initial decline in the early Moorehead phase (~AD 1200). Given the possibility that some Ramey Incised vessels may have been traded to these hinterland regions directly from Cahokia, and the reality that most were produced locally, the presence



**Figure 2.** Map of Cahokia and the northern hinterland regions.

of these pots in northern regions elicits questions regarding the nature of cultural interactions and the local negotiation of Mississippian religious ideologies and practices. I investigate this issue by examining Ramey Incised iconographic motifs and design fields from the Lower Illinois River valley (LIRV), Central Illinois River valley (CIRV), Apple River valley of northwestern Illinois, and the Aztalan site (47JE1) in southeastern Wisconsin (Figure 2). The data then are compared statistically with Emerson's (1989) Ramey Incised typology from the American Bottom to explore the ways in which Mississippian populations throughout the Midwest incorporated understandings of Cahokian religion within local contexts.

### Culture contact and the archaeology of religion

Early theories of culture contact, such as world systems and core-periphery theories (Champion 1989; Chase-Dunn and Hall 1991; Frank 1993; Friedman and Rowlands 1978; see also Wallerstein [1974]; Wallerstein [1991]), describe the acculturation of diverse groups of people to the dominant way of life, and exaggerate the degree to which the inhabitants of peripheral settlements unquestioningly adopt the practices of a core polity. Postcolonial archaeologies of culture contact demonstrate that this overemphasis on the dominance of the core overlooks the particular histories of local communities and the agency of individuals negotiating contact scenarios (Alt 2001; Anderson 1994:74; Cusick 1998; Liebmann and Murphy 2011:18; McGuire 1983; Pauketat 2007; Pauketat and Alt 2005; Wernke 2011; Yoffee 2005). In reality, the inhabitants of peripheral settlements may resist dominant influence or negotiate it on their own terms and in reference to their own histories and existing worldviews (Dietler 2010:49; Lightfoot and Martinez 1995; Pauketat and Alt 2005; Silliman 2005; Stein 2002).

Religion, too, is tied up in these sociopolitical negotiations. Indeed, many studies document religious dimensions of the Mississippian phenomenon as expressed through iconography (Emerson 1989; Emerson 1997a; Knight 1989; Reilly 2004), temple architecture (Alt 2002; Pauketat et al. 2012), mortuary ceremonialism (Brown 2003; Conrad 1993; Fowler et al. 1999; Pauketat 2010), mound construction (Baires 2014; Kelly et al. 2007; Pauketat 2013, Pauketat et al. 2002), and a combination of these attributes (Conrad 1991; Emerson 1991a; Hall 1991; Iseminger 2010; Kelly 1991; Pauketat 2004; Wilson 2011). Archaeologists often analyze iconographic symbols to provide details of past belief systems because religious symbolism incorporates certain embedded

concepts of world order (Cully 2008; Fogelin 2007; Renfrew 1994:49; Sabo 2008; Whitley and Hayes-Gilpin 2008:20). Thus, an investigation of Cahokia's influence in the northern hinterland would benefit from a theoretical consideration of the archaeology of religion as it relates to the use of iconography.

Through such an inquiry, a theme emerges: exploring the relationship between religion and power. Functionalist and Marxist anthropologists theorized that religion was a central aspect to elite political power through ideological control (Firth 1983; Friedman and Rowlands 1978; Southall 1956; White 1959:218). As for the archaeological record, Emerson suggests that in studies of complex societies, elite manipulation of ideological power is evidenced in the presence of a unified symbolic pattern (Emerson 1997b:40). Many Mississippian archaeologists similarly associate elite legitimation of power with ritual authority and control of esoteric cosmological knowledge and symbolism (Baltus and Baires 2012; Brown 2007; Cobb 2003:78; Emerson 1997b:40; Emerson and Pauketat 2008; Knight 1989:206; Pauketat 1992; Pauketat 1994; Pauketat 1997; Pauketat and Emerson 1997; Wilson 2001:126; Wilson et al. 2006). Decades of research were dedicated to defining the Southeastern Ceremonial Complex, a widely referenced set of Mississippian iconographic motifs and the corresponding cosmological narratives they reference (Galloway 1989; Lankford et al. 2011; Phillips and Brown 1984; Townsend 2004; Waring and Holder 1945). However, Mississippianists since have moved away from the culture-historical, typological descriptions in favor of a more nuanced analysis of why and how this politico-religious movement reached a pan-regional scale (Emerson et al. 2008; Emerson and Pauketat 2008; King 2007; Knight 2006; Pauketat 2001; Pauketat 2007).

While elites at Cahokia may have manipulated religious symbolism for political purposes, religion also was practiced by individuals who had the agency to resist or selectively reinterpret the ideological content of these efforts. For these individuals, religion was an experience embedded in and perpetuated by human action (Bell 1997; Emerson and Pauketat 2008; Fogelin 2008). That is to say, a superficial division between religious and everyday practices is unrealistic, yet not every action in the past was done so religiously (Fowles 2013). Religion is enmeshed in historical processes, so when considering the particular histories of interacting groups in culture contact situations, newly introduced religious practices and symbolism are interpreted and incorporated the way any other practice would be: through the lens of existing traditions.

In the archaeological record, practices of past peoples are manifested in the structures, features, objects, and

refuse we recover. The key is to connect these archaeological methods and data to theory that allows archaeologists to make meaningful interpretations about the ways in which people understood and experienced the world. The concept of materiality is useful in this respect, as the theoretical construct suggests that objects embody the cultural dispositions of their producers (Costin 2005:1037; Meskell 2005:53). Archaeologies of materiality have described the relationship between humans and things as networks or *meshes* with human and nonhuman actors (Ingold 2007; Joyce 2002; Latour 2005), a dialectic of historically contingent human-thing dependence and dependencies creating *entanglements* (Hodder 2012), and the *positioning* of humans with respect to other things and powerful nonhuman forces in the act of *bundling* (Pauketat 2013). Focusing on a critical materiality in the archaeology of religion, I argue that religious practice and belief are embodied in the objects of ritual significance, and that human interaction with these objects continually situated people and the supernatural with respect to their existing worldviews.

Theories of materiality must be put into practice if they are going to help us understand variation in the negotiation of religious practices in culture contact scenarios. A common theme between different scholars' interpretations of materiality is that an object is more than simply the sum of its parts; isolating any one component of an object overlooks the enmeshed/entangled/assembled associations that object has with other actors and entities (Olsen et al. 2012; Witmore 2014). However, following Lemonnier's (1992) *chaines operatoire* (or the chain of operations in the production of a craft), I argue that specific attributes differ in the associations they hold for the producer of that object and those who eventually interact with it (see also Lechtman [1977] for a discussion of technological style). For example, Carr (1995:220) suggests that less visible, perhaps earlier stages in the production process can be interpreted as ingrained practices while attributes with a high level of visibility may be used to communicate information (*sensu* Wobst 1977). Following Carr, Clark (2001) suggests that in a culture contact scenario high-visibility practices of a dominant group can be quickly and easily emulated by local groups, while their less-visible, ingrained practices often tend to be altered less (see also Lyons [2003]; Neuzil [2008]). Here the concept of materiality is applied to specific attributes or production steps of an object to bring a greater understanding of the complexity of that object and how it relates to people, social order, and religion in its broader relational field.



To summarize, the spread of Cahokian influence in the northern Midwest needs to be viewed as a historical process that considers the specific traditions and trajectories of the individuals involved, thus affording them agency within the narrative rather than imagining their reactions to outside forces (Pauketat 2002:158–159). Indeed, there was likely significant interregional variation in the ways Cahokian-introduced religion was localized and practiced. With material culture as a source of tangible data for archaeologists, an understanding of variation in religious practices may be accessible through the study of iconography within the framework of critical materiality. In this case, the variation of interest is in the selection and spatial arrangement of Mississippian iconographic motifs on Ramey Incised pottery recovered from Cahokia's northern hinterland.

### **Cahokia's northern hinterland**

In order to understand change during the Woodland-Mississippian transition, it is important to examine the dynamics of the Cahokian frontier. Before Cahokia's *Big Bang*, settlements in the American Bottom floodplain consisted mostly of scattered farmsteads and small villages (Milner 1984; Pauketat 2004). Beginning around AD 1050, American Bottom populations consolidated into a complex settlement hierarchy consisting of the paramount multimound center of Cahokia and the nearby multimound complexes – East St. Louis (11S706) and St. Louis (23SL4) mound groups (Kelly 2005; Pauketat 2005), nucleated mound centers (Fortier 2007), and smaller outlying settlements (Emerson 1997b; Emerson and Jackson 1984; Hanenberger 2003; Jackson et al. 1992; Milner 1984; see also Pauketat [1994:73–80]; Pauketat [2004:96–97]; Wilson et al. [2006]). At the same time, Cahokia's influence was spreading to the north. Archaeologists consider northern communities to be culturally Woodland prior to (and in some instances, during) contact with Cahokia. Although there are significant variations among different regional traditions, generally, Woodland peoples practiced small-scale horticulture and their settlements and communities lacked the complex hierarchical organization present in many Mississippian villages. As Cahokia's influence was negotiated by these Woodland peoples, some northern hinterland settlements intensified their production of maize, and selectively adopted some of the material manifestations of Cahokian religion, such as ceremonial architecture (e.g., L-shaped and cruciform buildings), religious paraphernalia (e.g., flint clay figurines, long-nosed god maskettes, shell cups, and ornaments), and mortuary practices (Emerson 1991a; Hall 1991; Kelly 1991; Stoltman, ed. 1991; VanDerwarker et al. 2013).

At the same time, these hinterland settlements seem to have lacked Cahokia's politically complex settlement pattern (Wilson 2011). For example, the early Mississippian LIRV consisted of numerous, small Mississippian farmsteads centered on two small villages and associated mortuary complexes (Delaney-Rivera 2000:149; Delaney-Rivera 2004; Goldstein 1980:22–23). The CIRV's settlements consisted of a mix of nodal ceremonial centers, farmsteads, and mortuary complexes (Bardolph 2014; Bardolph and Wilson 2015; Conrad 1991; Conrad 1993; Meinkoth 1993; Wilson 2012:526). The Mississippian Apple River valley differs in that it includes large villages<sup>1</sup> and mound centers (Emerson 1991b; Emerson et al. 2007; Millhouse 2012). Finally, the Aztalan site in southeastern Wisconsin is a relatively isolated fortified Mississippian mound center in an otherwise Woodland-dominated area (Barrett 1933; Griffith 1981; Hall 1991:11–13; Richards 1992; Zych 2015).

Inhabitants of these hinterland settlements maintained many earlier, local Woodland-style traditions. As much as 75% of Aztalan's early twelfth-century pottery is Woodland, including Madison Cord Impressed pottery from Iowa (Birmingham and Goldstein 2005:85; Hall 1991:13) and a variant of Maples Mills from the CIRV (Richards 2003:144); the Grant series Woodland pottery in the Apple River valley also featured cord impressions (Benn 1997; Finney 2013; Finney and Stoltman 1991). Although decorative cord impressions were not used in Mississippian pottery at Aztalan or in the Apple River valley, motifs and organizational schemes from this tradition may have influenced the way Ramey Incised jars were decorated in these two regions. An additional Woodland influence on hinterland pottery production is suggested by lip notching found on Ramey Incised jars in the LIRV, and Apple River valley (Delaney-Rivera 2000:139; Emerson 1991b:173). The practice of lip notching may have been carried over from the (Woodland) Maples Mills and Jersey Bluff potting traditions from the CIRV and LIRV (Esarey 2000; Studenmund 2000). With these and other examples in mind, it seems the Mississippian pottery in Cahokia's northern hinterland exhibits patterns of Woodland-Mississippian hybridity (Bardolph 2014:76; Delaney-Rivera 2000:94, 205–208; Delaney-Rivera 2004; Emerson 1991b:177; Finney 1993:135–136; Millhouse 2012:140; Richards 1992:297; Wilson 2015; Wilson et al. 2017; Zych 2013:27, 123).

### **Mississippian cosmology**

Ramey Incised pots were embellished with cosmological imagery related to Native American notions about the organization of the cosmos, specifically a Cahokian

reading of this broadly known cosmological narrative. This symbolism also is present on a wide variety of Mississippian artifacts found both at Cahokia and in the hinterland, which may have played a role in interactions between these groups.

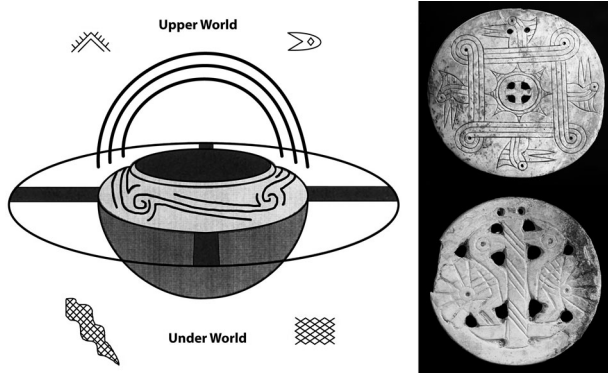
The Mississippian cosmological model – built on archaeological data and oral traditions from multiple sites and Native American groups with related belief systems (Edwards 2010:16) – includes upper (sky) and lower (earth/water) worlds represented in multiple levels around a central axis, or *axis mundi* (Emerson 1989:58–59; Lankford 2004:208, Lankford 2007; Pauketat 2004:111; Pauketat and Emerson 1991:929). The four corners of the cosmos, or cardinal directions, were guarded by Upper World thunderer deities, iconographically represented as birdmen using falcon imagery (Brown 2003:94–95; Brown 2007; Brown and Kelly 2000; Emerson 1989:78–80; Knight et al. 2001:134–136; Lankford 2004:209–210). Opposing these Upper World forces is the serpent monster of the Under World, depicted in more consistently zoomorphic forms than the thunderers (Lankford 2004:214; Lankford 2007). Human practitioners of this religion accessed power through the deities who could travel between cosmic levels, experimenting with the tension of natural and supernatural forces in the world (Reilly 2004:127). Interaction with deities was accomplished in part through the use of cosmograms – diagrams of the cosmos embodied in ritual artifacts (Figure 3). Depending on the vantage point used in a cosmogram, the *axis mundi* and four-corners theme is manifested in the

form of quadripartitioning, or dividing the design layout into four portions (Emerson 1997a:222; Lankford 2004; Lankford 2007; Pauketat 2004:111; Pauketat and Emerson 1991:929; Reilly 2004:131). In the American Bottom, the “centered quadripartite world view” even is embodied in community organization, as seen in villages oriented to cardinal directions, with mounds and houses (many of which are four-sided) surrounding a plaza with a central pole, or axis (Emerson 1997a:222; Emerson and Pauketat 2008:173–175). Some examples of portable craft items used as cosmograms include shell gorgets, shell cups, and engraved copper plates, all of which often depict a central pole or cross-in-circle motif in addition to motifs representing cosmological characters.

The presence of Cahokia-style cosmograms outside of the American Bottom represents an expression of Cahokian religious ideology as adopted by hinterland groups, suggesting an interregional power asymmetry fueled by a local desire to participate in the Cahokian cultural phenomenon. In the current study, the goal is to acknowledge these power asymmetries while focusing more on how Cahokian religious influence was localized by hinterland Woodland groups. An individual’s relationship to the cosmos exists in reference to one’s own religious and social traditions, and the Cahokian-introduced, yet locally produced Ramey Incised jar is an object that entangled religious symbolism and local practices for Mississippian peoples throughout the Midwest.

### Ramey Incised jars

Ramey Incised jars also functioned as cosmograms (see Figure 3). These pots were widely distributed and are commonly found in both ceremonial and domestic contexts, highlighting their value and significance in Mississippian communities. They were finely made, with carefully planned and executed designs and often slipped and burnished surfaces. Due to their in-slanting rims, the iconographic motifs on Ramey Incised jars were easily visible to anyone using these pots and looking down at them (Emerson and Pauketat 2008:179; Griffith 1981:7; Pauketat and Emerson 1991). For these reasons, numerous archaeological studies attempt to interpret the meaning of Ramey Incised symbolism. Hall (1991:29–33) suggests that Ramey motifs generally relate to water, rainbows, and bird symbolism. Griffith (1981) further suggests that Ramey Incised motifs reference the sun and moon in addition to possible anthropomorphic representations. Emerson (1989) and Emerson (1997b) groups motifs by theme. The curvilinear motif group – including circles, spirals, scrolls, and arcs – relates to water symbolism and Under World serpent monsters.



**Figure 3.** Mississippian cosmograms: (left) illustration of the Ramey Incised pot as a Mississippian cosmogram, showing quadripartitioned design layout and use of cosmological imagery (Pauketat and Emerson 1991:Figure 11); (top right) engraved shell gorget with *axis mundi* and thunderer motifs from the Castalian Springs Mound Group (40SU14) in Tennessee (National Museum of the American Indian, object 15/0855); (bottom) engraved shell gorget with side-angle *axis mundi* motif from the Hixton site (40HA3) in Tennessee (McClung Museum of Natural History and Culture, University of Tennessee, no. 508/Ha3).

The scroll motif featuring suspended vertical lines may be considered “feathered” and thus associated with a wing/bird Upper World theme, relating to the mythological “Birdman” character; the forked-eye motif fits with this narrative as well. There also are more direct cosmological references,<sup>2</sup> such as the trapezoid motif, which resembles and may symbolize a platform mound (Emerson 1989:71–78). However, even with ethnohistorical research and oral histories – used in this paper to illustrate the religious significance of Ramey Incised jars – it is a complex undertaking to attempt a true interpretation of the meanings of motifs (Emerson 1989:74; see also Knight [2006]).

Concerned less with individual motifs and more with the broader cosmological narratives referenced on Ramey Incised jars, Pauketat and Emerson (1991) later discuss the significance of cosmological movement represented by spirals and the way in which motifs were spatially and stylistically organized. Relating to the *axis mundi* theme, Cahokian Ramey Incised design layouts appear to be organized in a quadripartitioned manner, which demonstrates a nonarbitrary conveyance of cosmological themes (see Figure 4; Pauketat and Emerson 1991:929). The use of Ramey Incised vessels was likely, then, a meaningful experience. The vessels were manufactured to “embody the ritual negotiation of people and the supernatural” (Alt and Pauketat 2007:241); this was accomplished in the following manner:

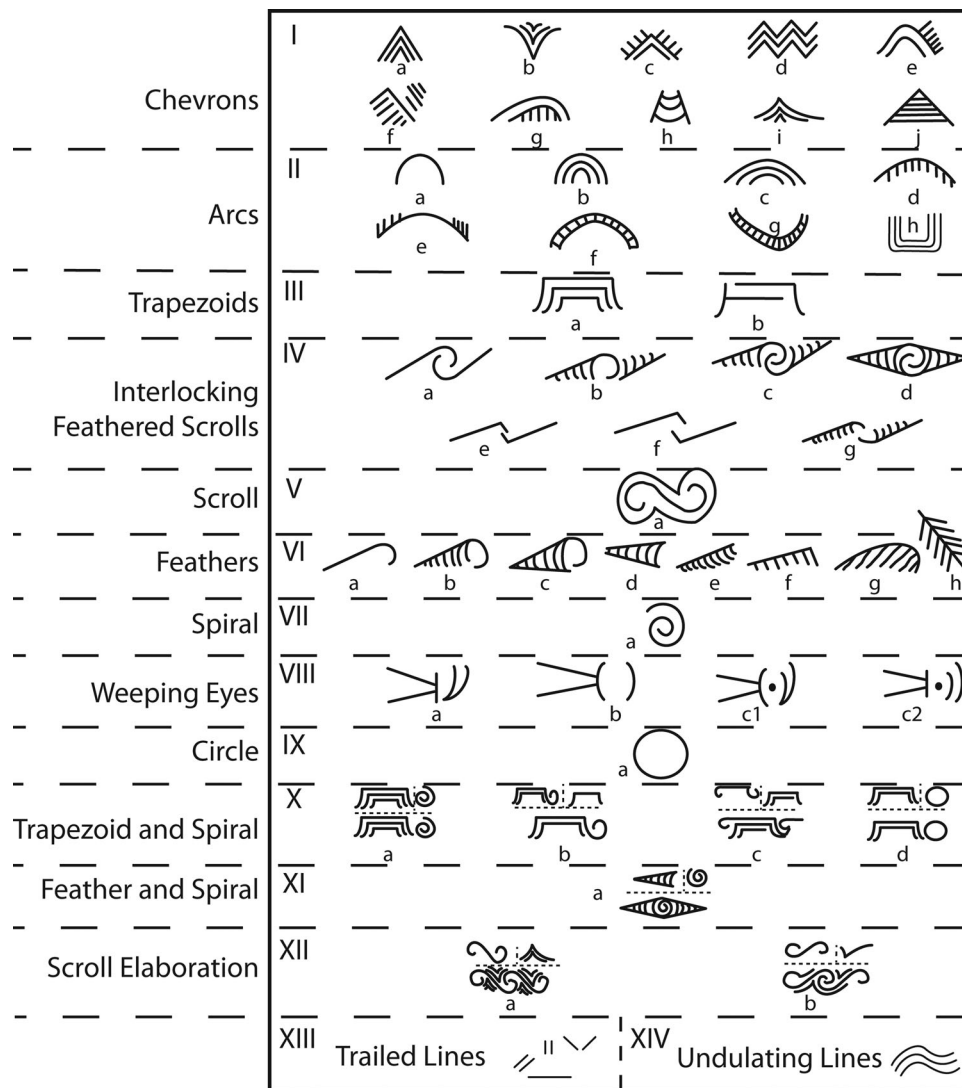
The user, in removing the [jar’s] contents through this meaning-laden, two-dimensional field, was in effect enacting the cosmological relationship between self (and any onlookers), the earthly realm, and the supernatural forces of the cosmos (the sky-world motifs set in their symmetrical field). In a sense, then, the Ramey Incised pot embodied the cosmos. In holding a Ramey pot, devotees possessed the entire cosmos in their hands [Emerson and Pauketat 2008:179].

Cooking in these pots was also likely a meaningful experience for Cahokians. Recent analysis of interior carbonization patterns on Ramey Incised jars suggests that the vessels often were used for ritual drink preparation, such as that of the Black Drink made from the leaves of the yaupon holly, *Ilex vomitoria* (Miller 2015; see also Crown et al. [2012] for discussion of Black Drink consumption at Cahokia). One can imagine the ritual meaning of stirring these concoctions, simulating the swirling motion of the cosmos, and the significance behind the subsequent consumption of the pot’s contents. This ceremonial use of Ramey Incised jars likely bundled cosmic relationships and understandings for Mississippians. These pots are thus ideal craft items for examining agentic expression of both dominant

cosmological ideologies and the way these ideologies were interpreted and reproduced by the local people who manufactured them.

If viewed exclusively from a top-down perspective, the widespread manufacture of Cahokia-inspired Ramey Incised jars suggests the wholesale adoption of Cahokian political and religious beliefs. Indeed, the cosmological narratives embodied by Ramey pots may represent an attempt by certain Cahokians to script particular relationships among people, places, and things. However, I argue that the Ramey Incised phenomenon can only be understood when analytically contextualized at the local level. This contextualization starts with the ways in which hinterland Mississippian settlements differ from Cahokia and the American Bottom. First, hinterland settlement systems generally lack large political centers, evidence of craft specialization, and other evidence of the complex hierarchy present at Cahokia (Wilson 2011). Additionally, northern hinterland sites often show a hybridity of Woodland and Mississippian practices. Recent research finds that Mississippian groups in the Illinois and Apple River valleys perpetuated local Woodland-era conventions of food preparation, serving, and storage (Bardolph 2014; VanDerwarker et al. 2013; Wilson 2011; Wilson 2012; Wilson et al. 2017; Wilson and VanDerwarker 2015). Similarly, the nature of Aztalan’s culture contact dynamic is complex and heavily debated (Christiansen 2003; Richards 2003; Stoltman et al. 2008), although more recent evidence suggests that a population from the American Bottom settled at Aztalan alongside the Woodland individuals who already lived there (Price et al. 2007; Richards and Zych 2014).

Most of the Ramey Incised jars found north of Cahokia appear to have been produced locally, with a minority of the sample being Cahokian imports (Hall 1991:21; Harn 1991:142–143; Pauketat and Emerson 1991; Stoltman 1991:115). Some hinterland potters were highly skilled in the production of fine Cahokian pottery, perhaps suggesting that these individuals, rather than the pots themselves, made their way to these northern regions. However, many northern hinterland Ramey pots differed stylistically from those found in the greater Cahokia area (Conrad 1991; Delaney-Rivera 2000; Emerson 1991a; Mollerud 2005). The jars are less often highly burnished or slipped than their Cahokian counterparts, and their pastes were sometimes of mixed temper rather than the standard crushed mussel shell. Northern Ramey pots also frequently feature handles and lip notching, and are sometimes even cord marked below the shoulder (Delaney-Rivera 2000:130, 139; Emerson 1991b:173; Esarey 2000). Given the religiously charged nature of these vessels, however, Ramey Incised jars have more



**Figure 4.** Ramey Incised iconographic motifs used in Emerson's typology, after Richards (1992).

to offer the discussion of the Cahokia contact dynamic than basic stylistic differences.

I argue that a deeper inspection of the Ramey Incised symbolism present in Cahokia's northern hinterland reveals a similar entanglement of Cahokian and local Woodland traditions and relationships, differentiating the meaning and significance of these vessels from their Cahokian counterparts. As demonstrated below, even if understanding the meanings themselves may be a tricky task, there are quantifiable interregional differences in the use of these vessels that allow archaeologists to explore variations in meaning. For example, an initial examination shows that hinterland regions have higher ratios of Ramey Incised vessels relative to other shell-tempered Mississippian jars than do American Bottom groups (Wilson et al. 2017). Northern Mississippian groups seem to have been placing a major emphasis on the Ramey Incised pottery tradition as an emulated

aspect of Cahokian material culture. But as compelling as this pattern is, it remains unclear if each region equally referenced the set of Ramey Incised motifs found in the American Bottom. Answering this question is a necessary step in determining if these pots held the same meaning for these individuals as they did for Cahokians.

## Methods

For the purpose of conducting a meaningful statistical analysis of stylistic variation, data were collected from multiple sources and sites were combined<sup>3</sup> by region to increase sample size; the exception is the isolated Aztalan site, which is considered here as its own region. The sample only includes vessels from Stirling-horizon contexts (AD 1100–1200), during which time Ramey Incised pots were most popular at Cahokia. It is important to note that analysis for this study found no statistical



difference between the proportions of Ramey Incised pottery in jar assemblages from the Early to Late Stirling subphase, which suggests that style also may have remained consistent over time.

Data from the LIRV include the author's original analysis of excavated materials in addition to analysis of drawings and photographs from Delaney-Rivera's (2000) dissertation research. The CIRV Ramey data also are derived from original research, with the exception of seven sherds analyzed from published images (Conrad 1993; Meinkoth 1993). Data from the Apple River valley were compiled from Mollerud's (2005) study of Ramey Incised motifs and reevaluated using published images of the same vessels (Emerson et al. 2007; Finney 1993; Millhouse 2012). Finally, the Aztalan data are from Richards' (1992) original analysis, which was reexamined considering more recent publications (Mollerud 2005). All analyses are based on and compared with Emerson's (1989, 1997b) Ramey Incised typology for the American Bottom with additional data from the Sponemann site (11MS217; Jackson et al. 1992). Emerson's (1997b:213) research shows no significant variation in Ramey Incised motif expression across Cahokia and American Bottom sites. Therefore, in the interest of providing a noninflated data set for the purposes of interregional comparison, data from the paramount center of Cahokia were excluded from the American Bottom sample for this study.

Data were collected by creating an inventory of design fields, breaking down the iconography into individual motifs to standardize analysis (*sensu* Emerson 1989; Emerson 1997b). Emerson's typology is based on the principle of visual symmetry, whereby nine basic categories of Ramey design elements are recognized:

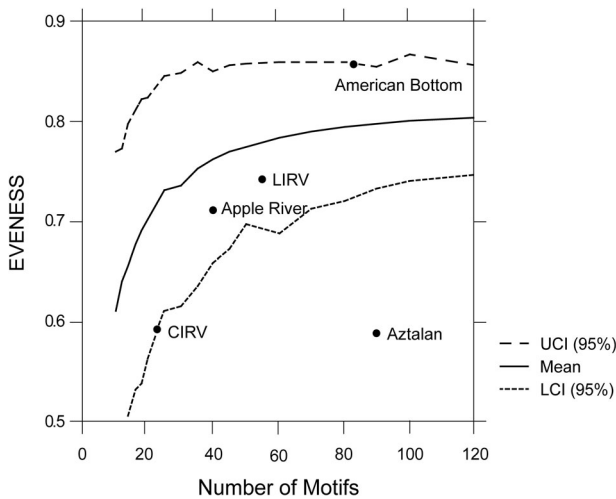
chevron (I), arc (II), trapezoid (III), scroll 1 (IV), scroll 2 (V), wing (VI), spiral (VII), forked eye (VIII), and circle (IX) (Emerson 1997b:209). Emerson also identifies the use of certain basic elements in combination as separate motif categories; for example, category X combines the trapezoid with either the spiral or circle elements, category XI combines the wing and spiral elements, and category XII combines the scroll and chevron elements (see Figure 4). These popular combinations, however, are considered one complex motif on a vessel and were rarely, if ever, used by Ramey potters in conjunction with other motifs or combinations.

Within categories I–XII, there are elaborations of the design elements. For example, a chevron (II) could have two or three nested incisions or an arc (I) might include rays extending from the edges. While it is possible that each elaboration of one type of motif held different meanings for Mississippian peoples, they are considered here as variations of one overarching theme and thus all motifs were analyzed in their basic forms. Two additional motifs were added to the typology used in this study: undifferentiated straight, trailed lines (XIII) and undulating, wavy lines (XIV), both with nested elaborations. Using these 14 general motif categories, the frequency of different motifs was recorded, once for each vessel on which a motif appeared. In cases of vessels incised with two motifs (never more), each motif was recorded separately. When a sherd was too fragmented to confidently identify a motif, no motif was recorded. The results were then compared region to region (Tables 1 and 2).

## Results

### Iconographic motifs

The results of this analysis reveal striking patterns. The arc motif is the most popular motif in the American Bottom and all hinterland regions other than Aztalan, where the chevron is by far the most favored. In fact, even though the chevron is the second most popular motif class in the American Bottom, LIRV, CIRV, and Apple River valley, it is more than twice as common at Aztalan than in the other assemblages. It makes sense that the two most favored iconographic motifs in the American Bottom also are common in hinterland regions but they are favored to varying degrees. For that matter, the frequency of use of the other 12 motifs also varies among regions. Some motifs were used in only one region outside the American Bottom, such as the trapezoid (III), spiral (VII), and circle (IX) at Aztalan and the scroll 2 (V) in the LIRV, while the wing and spiral motif (XI) has yet to be found outside of Cahokia. The question



**Figure 5.** Diversity analysis plotting the evenness of each region's assemblage.

**Table 1.** Ramey Incised Motif Frequencies by Region and Site.

Region	Site	Motifs														Total
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	
Aztalan <sup>a</sup>	(47JE1)	48	4	–	9	–	2	17	1	2	–	–	1	4	2	90
Apple River		10	13	2	2	–	3	–	1	–	3	–	6	2	42	
Fred Edwards <sup>b</sup>	(47GT377)	1	2	–	–	–	–	–	–	–	–	–	–	–	3	
John Chapman <sup>c</sup>	(11JD12)	4	10	2	2	–	2	–	1	–	2	–	3	–	26	
Lundy <sup>d</sup>	(11JD140)	5	1	–	–	–	1	–	–	–	1	–	3	2	13	
CIRV		7	8	–	1	–	1	–	–	–	–	4	–	2	23	
Dickson Mounds <sup>e</sup>	(11F10)	4	3	–	1	–	1	–	–	–	–	–	–	1	10	
Eveland <sup>e</sup>	(11F353)	2	1	–	–	–	–	–	–	–	–	2	–	–	5	
Garren <sup>e</sup>	(11F920)	–	–	–	–	–	–	–	–	–	–	1	–	–	1	
Kingston Lake <sup>f</sup>	(11P11)	–	1	–	–	–	–	–	–	–	–	1	–	1	3	
Tree Row <sup>g</sup>	(11F53)	1	3	–	–	–	–	–	–	–	–	–	–	–	4	
LIRV		12	18	–	2	2	1	–	3	–	4	–	1	8	4	55
Audrey <sup>e,h</sup>	(11GE20)	2	–	–	1	1	–	–	–	–	1	–	–	–	5	
Moss <sup>h</sup>	(11GE12)	2	4	–	–	–	1	–	1	–	–	–	–	–	8	
Schild <sup>h</sup>	(11GE15)	8	14	–	1	1	–	–	2	–	3	–	1	8	4	42
American Bottom		16	16	7	10	1	7	4	3	1	8	–	9	–	1	83
BBB Motor <sup>i</sup>	(11MS595)	6	–	2	2	–	1	1	–	–	2	–	1	–	1	16
Julien <sup>i</sup>	(11S63)	1	6	3	1	–	5	2	3	–	5	–	–	–	–	26
Labras Lake <sup>i</sup>	(11S299)	–	–	–	2	–	–	–	–	–	–	–	–	–	–	2
Lily Lake <sup>i</sup>	(11S341)	2	2	–	–	–	1	–	–	–	–	–	–	–	–	5
McCain <sup>i</sup>	(11S13)	3	–	–	2	–	–	–	–	–	–	2	–	–	–	7
Range <sup>i</sup>	(11S47)	–	2	–	–	–	–	–	–	–	–	3	–	–	–	5
Sponemann <sup>j</sup>	(11MS217)	4	6	2	3	–	–	1	–	1	1	–	3	–	–	21

<sup>a</sup>Data from Mollerud (2005) and Richards (1992).

<sup>b</sup>Data from Finney (1993).

<sup>c</sup>Data from Millhouse (2012) and Mollerud (2005).

<sup>d</sup>Data from Emerson et al. (2007) and Mollerud (2005).

<sup>e</sup>Original analysis by author.

<sup>f</sup>Data from Conrad (1993).

<sup>g</sup>Data from Meinkoth (1993).

<sup>h</sup>Data from Delaney-Rivera (2000).

<sup>i</sup>Data from Emerson (1989), Emerson (1997b).

<sup>j</sup>Data from Jackson et al. (1992).

is whether the set of Ramey Incised motifs used in the northern hinterland differs significantly from the American Bottom.

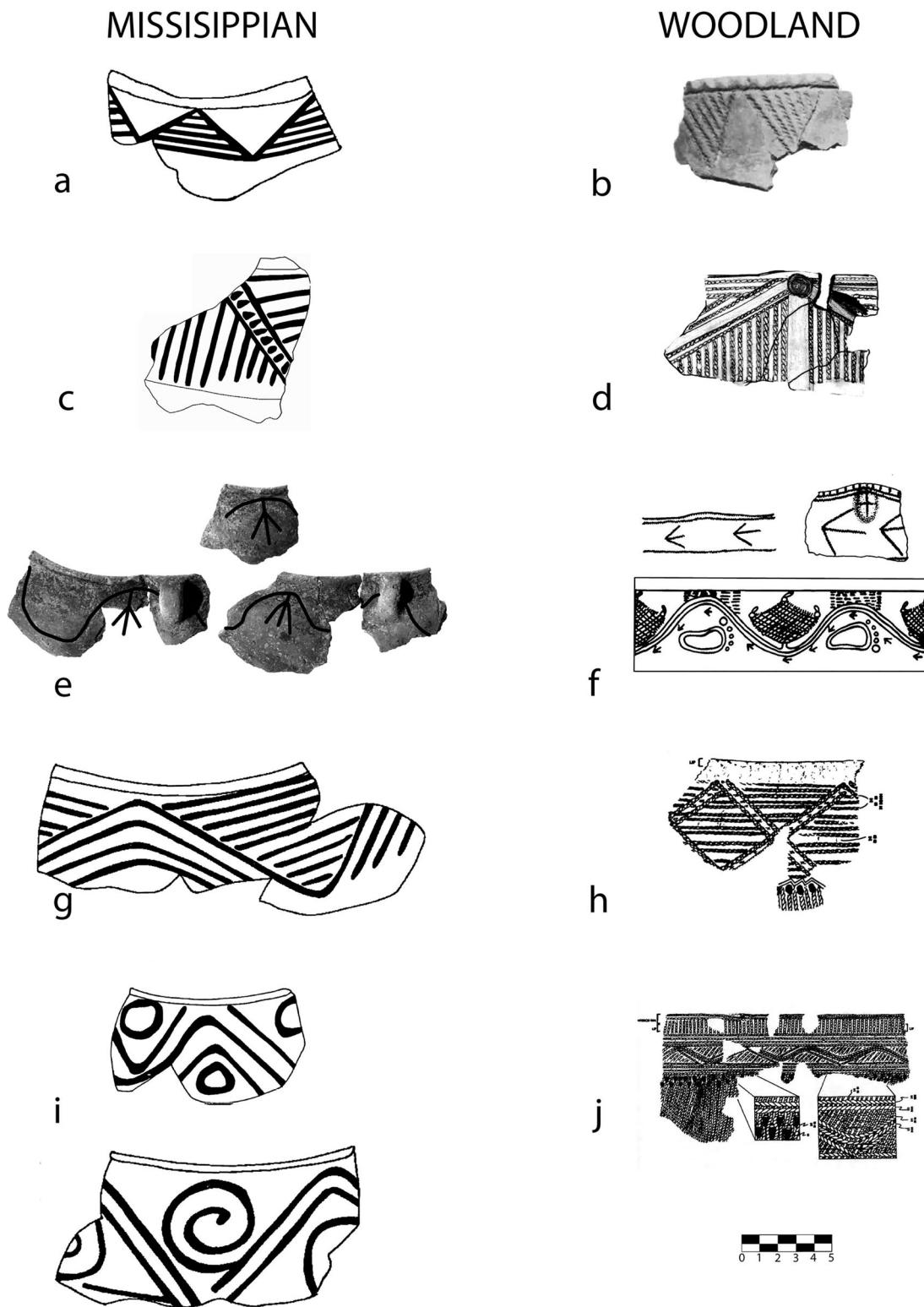
To better understand the variation in the consistency with which hinterland potters used motifs from the Cahokian “canon,” I conducted a diversity analysis of the assemblages using Kintigh’s Divers program (Kintigh 1984). Diversity analysis evaluates evenness, in this case the degree to which motifs are distributed

equally as frequently within each assemblage. The lines on the graph in Figure 5 represent the mean expected values and the upper and lower confidence intervals at 95% confidence for a range of sample sizes. The greater the evenness value, the more evenly each motif class is represented in the Ramey sample, which means it is less likely that one motif was favored over others. We can see that each region’s evenness is within the expected range with the exception of the Aztalan site, for which the Ramey Incised assemblage is less even than expected. Aztalan potters seem to have drawn on chevron motifs significantly more than any other motif class. In fact, Aztalan’s most common motif is the barred triangle, a version of the chevron class of motifs that is extremely rare in the American Bottom.

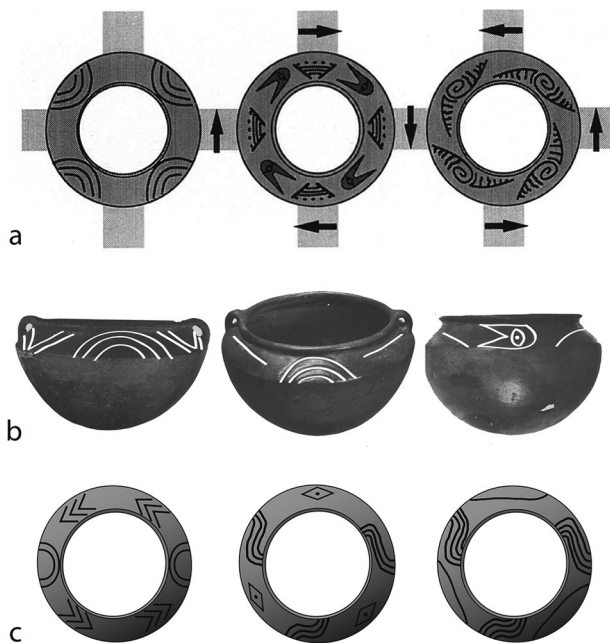
With the prevailing motif on Aztalan Ramey Incised vessels near absent in American Bottom Ramey, it seems pertinent to ask where the barred triangle originated. Although Griffin (1960:858) points out the similarity of Aztalan’s barred-triangle motif to later, rectilinear incised Oneota designs, Mollerud (2005:154) suggests the motif was borrowed from earlier Woodland iconographic traditions. Some of the Woodland chevron

**Table 2.** Proportion of Ramey Incised Motifs by Region.

Motif	American Bottom	LIRV	CIRV	Apple River	Aztalan
I	19.28	21.82	30.43	23.81	53.33
II	19.28	32.73	34.78	30.95	4.44
III	8.43	–	–	4.76	–
IV	12.05	3.64	4.35	4.76	10.00
V	1.20	3.64	–	–	–
VI	8.43	1.82	4.35	7.14	2.22
VII	4.82	–	–	–	18.89
VIII	3.61	5.45	–	2.38	1.11
IX	1.20	–	–	–	2.22
X	9.64	7.27	–	7.14	–
XI	–	–	–	–	–
XII	10.84	1.82	17.39	–	1.11
XIII	–	14.55	–	14.29	4.44
XIV	1.20	7.27	8.70	4.76	2.22
Total	100.00	100.00	100.00	100.00	100.00



**Figure 6.** Mississippian Ramey Incised and Woodland pottery motifs. (a) Barred-triangle motif from Aztalan (Richards 1992); (b) Madison Cord Impressed from Iowa (Benn 1995:Figure 2); (c) barred triangle from John Chapman site in the Apple River valley (Mollerud 2005); (d) Maples Mills Cord Impressed from the Audrey site in the LIRV (image courtesy of Colleen Delaney); (e) bisected angle and undulating line motif from CW Cooper site in the CIRV; (f) Maples Mills Cord Impressed motifs (not to scale) (Sampson 1988:Figure 11B, C [top], Figure 15 [bottom]); (g) barred triangle in continuous design layout from Aztalan (Richards 1992); (h) Madison Cord Impressed from Iowa (Benn 1995:Figure 3); (i) two examples from Aztalan of continuous chevron design layouts with Mississippian motifs inserted (Richards 1992); (j) Madison Fabric Impressed design from Iowa (Benn 1995:Figure 4).



**Figure 7.** (a) American Bottom vessels showing quadripartite design layout (Pauketat and Emerson 1991:Figure 7); (b) tripartite design layouts from the LIRV (adapted from Perino 1971); (c) tripartite design layouts from the CIRV.

motifs, often found on Madison Cord Impressed pottery local to the region, are almost identical to the Aztalan barred-triangle motif (Figure 6[a,b]); a variation of this design was also found at the John Chapman site (11JD12) in the Apple River valley (Figure 6[c]), which particularly echoes the Woodland-era cord impressions (Figure 6[d,h]). These similarities suggest that Aztalan's most common motif was not a Cahokian import, but more likely represents a continuity of certain Woodland traditions at Aztalan.<sup>4</sup>

While the chevron motif is not rare in Cahokia Ramey, its frequent appearance on local cord and fabric impressed Woodland pottery in hinterland regions suggests the chevron is a Woodland-derived motif that locals were already accustomed to using. The same may also be true at Cahokia, yet given the diverse immigrant populations drawn there during the American Bottom's regional consolidation in the late eleventh and early twelfth centuries (Emerson and Hedman 2016; Slater et al. 2014), multiple Cahokian Ramey motifs may be related to a diversity of Woodland-era design elements. Focusing here on the North, when examining the proportion of chevrons within each region's assemblage of Ramey motifs, the frequency of chevron motifs increases with distance from Cahokia. We might conclude that distance is an important factor in understanding the spread of Cahokian religious ideas and practices in these hinterland communities. There are other examples of Woodland motifs executed on

Ramey Incised vessels in the northern hinterland. For example, Figure 6(e) depicts trailed designs on a late Stirling-phase rim from the C. W. Cooper site (11F15) in the CIRV. The sherd features a bisected angle and undulating line motif, which was used in both Middle and Late Woodland pottery traditions in the region (Figure 6[f]).

### Design layout

Research on culture contact and emulation focusing on ceramic variation in the Puebloan Southwest has revealed that individual decorative motifs are more quickly adopted by interacting groups than the broader spatial organization of the entire design fields in which these motifs are spatially embedded. Design layout, on the other hand, represents a deeply ingrained practice passed down from potter to potter through the process of enculturation, making it less susceptible to stylistic change (Clark 2001; Lyons 2003:49; Neuzil 2008; see also Carr [1995]). This pattern also holds true in the current study. When looking more closely at the Ramey Incised pottery from Cahokia's northern hinterland (Figure 7), there are some fundamental deviations from the dominant quadripartite organizational layout thought to hold religious significance for Cahokians. For example, 100% of the intact Ramey Incised vessels from the CIRV ( $n = 5$ ) and 55% from the LIRV ( $n = 27$ ) have a tripartite layout consisting of six motifs, rather than the typical four or eight found at Cahokia.<sup>5</sup> Further north, Aztalan and Apple River valley pots bear mostly "continuous" design layouts in which the entire rim is filled with incising (Figure 6[g]; Mollerud 2005:153). The significance of this deviation from Cahokian quadripartition is unclear, but it is possible that this practice is another example carried through from Woodland traditions. Indeed, the fabric impressions and cord marked designs found on Woodland-era pottery in Iowa, southern Wisconsin (where Aztalan is located), and northern and west-central Illinois were often organized as continuous chevrons (Figure 6[h,j]; Benn 1995; Esarey 2000; Sampson 1988). Further deviance in Ramey Incised design layout is seen at Aztalan, where Mississippian motifs like the spiral and circle are often inserted in the blank spaces within these continuous Woodland-style design fields (Figure 6[i]), rather than side-by-side separated by blank areas, which is the most common practice in the American Bottom.

Although the sample size for this study is small and the fragmented nature of the sherds prevents analysis of the full design layout for many of the vessels, the differences between Ramey Incised pots from the



hinterland regions and the American Bottom indicate that the inhabitants of northern regions selectively adopted only particular components of a Cahokian religious cosmology. We might conclude that there was an entanglement of Cahokian and local ideas and symbolism by these northern peoples rather than a wholesale adoption of a Mississippian religious tradition.

## Discussion

These patterns of variation in Ramey Incised pottery provide new insight into the nature of interaction between the influential Cahokia polity and the northern Mississippian hinterland and the entanglement of local and nonlocal ideas, values, and practices. In a discussion of religion and the Cahokia contact dynamic, it is tempting to turn to evaluations of Cahokian power. After all, with the burgeoning of Cahokia as a monumental ceremonial and political center, religion and power became intrinsically linked in Mississippian society. Religious symbolism (such as that found on Ramey Incised pottery and other cosmographic objects) often was used in the brokerage of power relations. And yet, while it is clear that hinterland people had a desire to engage in Cahokian religion, and it is argued that Cahokia had some power to be able to establish politico-religious relationships with these far-off regions, it is becoming apparent that local negotiations had less to do with Cahokian dominance than once thought. To offer another interpretation, northern hinterland communities and the active agents within them had complexities of their own, and their own ways of understanding the natural and supernatural forces around them were ultimately more powerful than Cahokian influence.

The Ramey Incised data presented in this paper point to a continuity of Woodland lifeways and a localization of Cahokian religion during the Mississippian transition. Local potters producing religiously charged Cahokian-style Ramey Incised jars not only used Woodland-derived motifs, such as the chevron, but also organized Ramey design fields using presumably local concepts of space, such as tripartite and continuous design layouts. These patterns are evident in all study regions, but tend to be more pronounced with increasing distance from Cahokia. Though subtle, the patterns reveal that different communities in the northern Midwest certainly generated distinct local flavors of Mississippian by mixing and matching Woodland and Cahokian religious practices and material culture.

It is important to note that this trend fits the broader pattern of Woodland cultural continuity in Mississippian hinterland communities. As such, it further illustrates that people can emulate the cultural practices

of a dominant polity, but in the end they do so with regard to their own local traditions. In the uplands of the American Bottom, Alt (2002:229) asserts that the types of Cahokian practices adopted early on “were those that would least affect day-to-day life—changes in styles and technology but not social and political organization.” Bardolph and Wilson (2015:145–146) find a similar pattern in the early Mississippian CIRV, and suggest that local people adopted certain highly visible Cahokia-style material culture and religious practices while still maintaining “important Woodland-era forms of communal social interaction.” Yet, even in attempts to produce Cahokia-style material culture, such as ceramic vessels, potters throughout the northern hinterland often used hybridized pastes, surface treatments, lip treatments, and other attributes found to be consistent with enculturated Woodland potting practices (Bardolph 2014:76; Delaney-Rivera 2000:94, 205–208, 2004; Emerson 1991b:177; Millhouse 2012:140; Richards 1992:297; Wilson 2015; Wilson et al. 2017; Zych 2013:27, 123). Through ongoing interactions with Cahokia and American Bottom peoples, hinterland groups selectively adopted aspects of Mississippian lifeways, but incorporated and made them meaningful within local contexts.

The Ramey Incised jar is yet another example of continuity of local practices, but given their religious associations, the analysis of these vessels adds a level of understanding not only for the localization of Cahokian practices, but also for ideologies. Superficially, as one of Cahokia’s “calling cards” – evidence of direct interaction and political affiliation (Emerson 1989; Emerson 1997a; Hall 1991; Kelly 1991; Pauketat 2004:121) – these jars seem to represent a simple Cahokia-style emulation. But when we look critically at the production of local Ramey Incised jars, certain production steps appear to be Cahokia-inspired, while others represent ingrained, local ways of doing things. In this case, while the trademark Cahokian iconographic motifs on Ramey Incised jars could have been easily adopted by northern groups, the spatial organization of the design fields on these jars is more likely to reflect a part of the production process that already came naturally to the potter. This is a particularly cogent point as the design layout used in the Cahokian Ramey Incised prototypes (quadripartition) has been demonstrated to have religious significance for American Bottom potters and consumers. The samples from Aztalan and in the Apple River valley show a continuity of Woodland-period design layouts from Madison Ware, Grant series, and Maples Mills jars on which the fabric and cord impressed designs often were organized using a continuous chevron layout. While there

does not seem to be a Woodland precedent for the tripartite design layouts favored in the CIRV and frequently used in the LIRV, they might be seen, at the very least, as locally derived organizations of design space. We cannot be sure whether variation in Ramey Incised design layouts represents a conscious choice to perpetuate local cosmological interpretations or simply an incomplete understanding of the importance of quadripartition to the meaning of the pot within a Cahokian cosmological context. Regardless, this variation indicates that these groups did not adopt Mississippian religion wholesale, but rather made sense of the changing cultural climate within their own worldviews, renegotiating their identities and social relationships in the process, and bundling these spheres of interaction into the products of their daily practice.

## Conclusion

Religion is both belief and experience, simultaneously communal and individual. When religion is spread from a powerful and influential society to outlying interacting communities, certain narratives may be told, deities depicted, rituals observed, and paraphernalia exchanged and emulated. But when an individual engages with newly acquired religious beliefs by producing and using a ritual object, these relationships are renegotiated and that individual repositions him or herself within the cosmos (*sensu* Pauketat 2013). It is this process that is observed in the variation of otherwise easily reproducible religious items, such as the attainable domestic cosmogram, the Ramey Incised jar.

In summary, the examination of Ramey Incised iconographic motifs and design layouts suggests that the Mississippian people of the LIRV, CIRV, Apple River valley, and the Aztalan site negotiated Cahokia contact in different ways. There seems to have been a local filter for religion during the Mississippian transition in these regions. Hinterland people selectively adopted aspects of Mississippian lifeways but often contextualized and made them meaningful in reference to Woodland traditions and organizational concepts. Ultimately, the stylistic variation between Ramey Incised pottery at Cahokia and in hinterland regions suggests differences in the perceived composition and structure of the cosmos from region to region and reveals the power of local worldviews in the negotiation of Cahokian religious influence.

Emerson and Pauketat have asserted that “in the archaeology of religion, the devil is in the details” (2008:168). This interregional stylistic analysis highlights ground-level patterns of material variation which can be used to interpret the ways in which local peoples

negotiated the spread of dominant ideologies and religious practices. It can not only be theorized, but also demonstrated that throughout history, inhabitants of peripheral settlements did not passively adopt the practices of more powerful core polities. And while it is tempting to see emulated ritual objects as evidence for the wholesale adoption of a set of religious practices, we must remember that religious practice and belief are embodied in these objects, and that human interaction with these objects continually situated people and the supernatural with respect to their existing awareness and understanding of the world around them. While the data presented here represent just one line of evidence for the complexity of the historical process of Mississippianization, they illustrate the value of considering local agency in studies of culture contact and incorporating social theory in the interpretation of quantitative archaeological analyses.

## Notes

1. The Fred Edwards site (47GT377) in southwestern Wisconsin is a palisaded Mississippian village (differing from other unfortified Apple River valley sites) with evidence for Woodland-Mississippian hybridity (Finney 2013). Inhabitants of Fred Edwards village likely had kin and exchange ties with Apple River valley groups (Millhouse 2012:63, 99, 140). Given Fred Edwards' proximity and connection to Apple River valley sites, its Ramey Incised jars were included in the Apple River sample to increase sample size.
2. Ceramic vessels themselves are sometimes depicted in Mississippian cosmographic imagery, either representing the base of the cosmos (relating to the earth/water Under World theme whereby the pot contains these substances) or as centered with the *axis mundi* (Lankford 2004:211; Lankford 2007).
3. For the purposes of quantitative analysis, it is assumed that Mississippian sites within a region will have similar interpretations of Ramey Incised pottery. With the large number of sites in the study, and a small sample of Ramey Incised pots from each site, it was not feasible to conduct this study on a site-by-site scale. In most cases provenience data were not available for the sherds used in this analysis, and thus a study of context (i.e., burial vs. domestic) was not possible. It should also be noted that the following sites have some examples of nonlocal jars (presumably made at Cahokia): Fred Edwards in the Apple River valley, Ramey Incised (Stoltman 1991:115); Audrey-North (11GE20) and Moss Cemetery (11GE12) in the LIRV, Powell Plain (Delaney-Rivera 2000:214–217; Delaney-Rivera 2004); Aztalan, various Mississippian vessels (Richards and Schneider 2013; Stoltman 2001; Zych 2013:13).
4. It also is worth considering that Cahokians living at Aztalan and producing Ramey Incised jars may have drawn on local Late Woodland traditions, like the

chevron motif, in an attempt to appeal to the local residents. This may be the case for some of Aztalan's Ramey Incised vessels, but additional data on design layout presented here suggests local potters produced the majority of these jars.

5. It should be noted that two vessels from a published report of the East St. Louis site also feature six motifs, in addition to six shoulder bulges, separating the rim spatially both in two and three dimensions (Jackson and Finney 2007:684). More recent excavations at the site conducted by the Illinois State Archaeological Survey yielded a few additional examples of "tripartite" Ramey Incised design fields. However, it was noted that the vast majority of the jars had traditional quadripartite design layouts (Tamira Brennan, Alleen Betzenhauser, and Michael Brent Lansdell, personal communication 2014).

## Acknowledgments

I would like to thank Greg Wilson for his advice, inspiration, and support through the entire research, writing, and editing process. I would also like to thank Amber VanDerwarker, Lynn Gamble, Tim Pauketat, Tom Emerson, Melissa Baltus, and Alleen Betzenhauser for providing valuable feedback on earlier versions in addition to Erin Bornemann, Norman Friberg, and Gerrit Albertson among others for their help editing this manuscript. The analysis would not have been possible without the assistance of Alan Harn of the Dickson Mounds Museum, who provided access to invaluable collections, and Larry Conrad, who lent collections used in this project. Also, I thank the peer reviewers for their valuable comments and insights.

## Data availability statement

Data derived from published works and unpublished dissertations and theses are available in those references cited. Data for the Dickson Mounds (11F10) and Ewelland (11F353) sites came from the author's original analysis of collections at the Dickson Mounds Museum in Lewistown, Illinois. The pottery analyzed from the Garren site (11F920) was provided by Larry Conrad. Data from the Audrey site (11GE20) were derived from original analysis of materials excavated by the author in 2016 (currently housed at the University of California, Santa Barbara) in addition to analysis of drawings from Delaney-Rivera's (2000) dissertation work on pottery from the site (material housed at the Illinois State Museum, Springfield, Illinois). Delaney's ceramic analysis also included Ramey Incised jars from the Schild (11GE15) and Moss (11GE12) cemeteries in the LIRV, collections housed at the Gilcrease Museum in Tulsa, Oklahoma. Detailed data compiled for each site (including motif elaborations) are available upon request.

## Disclosure statement

No potential conflict of interest was reported by the author.

## Funding

This project was completed with support from the University of California, Santa Barbara.

## Notes on contributor

*Christina Friberg* received her Master's degree from the University of California Santa Barbara's Department of Anthropology in 2013 where she is currently a doctoral candidate. Her research concerns issues of ethnogenesis, religion, gender, craft production, and long-distance exchange in the contexts of culture contact scenarios. Her current focus is on the complexity of interactions between Cahokia and various groups in the Midwest. She investigates these issues through an agent-based historical framework drawing on theories of materiality, practice, and entanglement, using a variety of archaeological methods and analyses.

## ORCID

*Christina M. Friberg*  <http://orcid.org/0000-0002-0125-2942>

## References Cited

- Alt, Susan M. 2001 Cahokian Change and the Authority of Tradition. In *The Archaeology of Traditions: Agency and History Before and After Columbus*, edited by Timothy R. Pauketat, pp. 141–156. University Press of Florida, Gainesville.
- Alt, Susan M. 2002 Identities, Traditions, and Diversity in Cahokia's Uplands. *Midcontinental Journal of Archaeology* 27:217–235.
- Alt, Susan M., and Timothy R. Pauketat 2007 Sex and the Southern Cult. In *Southeastern Ceremonial Complex: Chronology, Content, Context*, edited by Adam King, pp. 232–250. University of Alabama Press, Tuscaloosa.
- Anderson, David G. 1994 *The Savannah River Chiefdoms*. University of Alabama Press, Tuscaloosa.
- Baires, Sarah E. 2014 Cahokia's Origins: Religion, Complexity, and Ridge-top Mortuaries in the Mississippi River Valley. PhD dissertation, Department of Anthropology, University of Illinois, 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.
- Bardolph, Dana N. 2014 Evaluating Cahokian Contact and Mississippian Identity Politics in the Late Prehistoric Central Illinois River Valley. *American Antiquity* 79:69–89.
- Bardolph, Dana N., and Gregory D. Wilson 2015 The Lamb Site (11SC24): Evidence of Cahokian Contact and Mississippianization in the Central Illinois River Valley. *Illinois Archaeology* 27:138–149.
- Barrett, Samuel Alfred 1933 *Ancient Aztalan*. Greenwood Publishing Group, Westport, Connecticut.

- Bell, Catherine 1997 *Ritual: Perspectives and Dimensions*. Oxford University Press, Oxford.
- Benn, David W. 1995 Woodland People and the Roots of the Oneota. In *Oneota Archaeology: Past, Present, and Future*, edited by William Green, pp. 91–139. Report 20. Office of the State Archaeologist, University of Iowa, Iowa City.
- Benn, David W. 1997 Who Met the Mississippians at the Mouth of the Apple River? *Illinois Archaeology* 9:1–35.
- Birmingham, Robert A., and Lynne Goldstein 2005 *Aztalan: Mysteries of an Ancient Indian Town*. Wisconsin Historical Society, Madison.
- Brown, James A. 2003 The Cahokia Mound 72-Sub 1 Burials as Collective Representation. *Wisconsin Archeologist* 84:83–99.
- 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 James F. Garber, pp. 56–106. 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 Fowler*, edited by Steven R. Ahler, pp. 464–510. Scientific Papers 28. Illinois State Museum, Springfield.
- Carr, Christopher 1995 A Unified Middle-Range Theory of Artifact Design. In *Style, Society, and Person*, edited by Christopher Carr and Jill E. Neitzel, pp. 171–258. Plenum, New York.
- Champion, Timothy (editor) 1989 *Centre and Periphery: Comparative Studies in Archaeology*. Unwin Hyman, London.
- Chase-Dunn, Christopher, and Thomas D. Hall 1991 *Core/Periphery Relations in Precapitalist Worlds*. Westview Press, Boulder, Colorado.
- Christiansen, George W., III 2003 Late Woodland Leviathan and the Juggernaut in Southern Wisconsin: New Perspectives on Age Old Questions. *Wisconsin Archeologist* 84:219–241.
- Clark, Jeffrey J. 2001 *Tracking Prehistoric Migrations: Pueblo Settlers among the Tonto Basin Hohokam*. Anthropological Papers No. 65. University of Arizona Press, Tucson.
- Cobb, Charles R. 2003 Mississippian Chiefdoms: How Complex? *Annual Review of Anthropology* 32:63–84.
- Conrad, Lawrence A. 1991 The Middle Mississippian Cultures of the Central Illinois 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.
- Conrad, Lawrence A. 1993 Two Elaborate Middle Mississippian Graves from the Kingston Lake Site, Peoria County, Illinois. In *Highways to the Past: Essays on Illinois Archaeology in Honor of Charles J. Bareis, Illinois Archaeology*, Vol. 5, edited by Thomas E. Emerson, Andrew C. Fortier, and Dale L. McElrath, pp. 297–314. Illinois Archaeological Society, Springfield.
- Costin, Cathy L. 2005 The Study of Craft Production. In *Handbook of Methods in Archaeology*, edited by Herbert Maschner, pp. 1034–1107. AltaMira Press, New York.
- Crown, Patricia L., Thomas E. Emerson, Jiyun Gu, W. Jeffrey Hurst, Timothy R. Pauketat, and Timothy Ward 2012 Ritual Black Drink Consumption at Cahokia. *Proceedings of the National Academy of Sciences* 109:13944–13949.
- Cully, Elisabeth V. 2008 Supernatural Metaphors and Belief in the Past: Defining an Archaeology of Religion. In *Belief in the Past: Theoretical Approaches to the Archaeology of Religion*, edited by David S. Whitely and Kelley Hays-Gilpin, pp. 67–84. Left Coast Press, Walnut Creek, California.
- Cusick, James G. 1998 Historiography of Acculturation: An Evaluation of Concepts and Their Application in Archaeology. In *Studies in Culture Contact: Interaction, Culture Change, and Archaeology*, edited by James G. Cusick, pp. 126–145. Occasional Paper No. 25. Center for Archaeological Investigations, Southern Illinois University, Carbondale.
- Delaney-Rivera, Colleen 2000 Mississippian and Late Woodland Cultural Interaction and Regional Dynamics: A View from the Lower Illinois River Valley. PhD dissertation, Department of Anthropology, University of California, Los Angeles.
- Delaney-Rivera, Colleen 2004 From Edge to Frontier: Early Mississippian Occupation of the Lower Illinois River Valley. *Southeastern Archaeology* 23:41–56.
- Dietler, Michael 2010 *Archaeologies of Colonialism: Consumption, Entanglement, and Violence in Ancient Mediterranean France*. University of California Press, Berkeley.
- Edwards, Tai S. 2010 Osage Gender: Continuity, Change, and Colonization, 1720s–1820s. PhD dissertation, Department of History, University of Kansas, Lawrence.
- Emerson, Thomas E. 1989 Water, Serpents, and the Underworld: An Exploration into Cahokia Symbolism. In *Southeastern Ceremonial Complex: Artifacts and Analysis*, edited by Patricia K. Galloway, pp. 45–95. University of Nebraska Press, Lincoln.
- Emerson, Thomas E. 1991a Some Perspectives on Cahokia and the Northern Mississippian Expansion. In *Cahokia and the Hinterlands: Middle Mississippian Cultures of the Midwest*, edited by Thomas E. Emerson and R. Barry Lewis, pp. 221–236. University of Illinois Press, Urbana.
- Emerson, Thomas E. 1991b The Apple River Mississippian Culture of Northwestern Illinois. In *Cahokia and the Hinterlands: Middle Mississippian Cultures of the Midwest*, edited by Thomas E. Emerson and R. Barry Lewis, pp. 164–182. University of Illinois Press, Urbana.
- Emerson, Thomas E. 1997a 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.
- Emerson, Thomas E. 1997b *Cahokia and the Archaeology of Power*. University of Alabama Press, Tuscaloosa.
- Emerson, Thomas E., and Douglas K. Jackson 1984 *The BBB Motor Site*. American Bottom Archaeology FAI-270 Site Reports Vol. 6. University of Illinois Press, Urbana.
- Emerson, Thomas E., and R. Barry Lewis (editors) 1991 *Cahokia and the Hinterlands: Middle Mississippian Cultures of the Midwest*. University of Illinois Press, Urbana.
- Emerson, Thomas E., Phillip G. Millhouse, and Marjorie B. Schroeder 2007 The Lundy Site and the Mississippian Presence in the Apple River Valley. *Wisconsin Archeologist* 88(2):1–123.
- Emerson, Thomas E., and Timothy R. Pauketat 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. Whitely and Kelley Hays-Gilpin, pp. 167–188. Left Coast Press, Walnut Creek, California.
- Emerson, Thomas E., Susan M. Alt, and Timothy R. Pauketat 2008 Locating American Indian Religion at Cahokia and Beyond. In *Religion, Archaeology, and the Material World*, edited by Lars Fogelin, pp. 216–236. Occasional Paper No. 36. Center for Archaeological Investigations, Southern Illinois University, Carbondale.
- Emerson, Thomas E., and Kristin M. Hedman 2016 The Dangers of Diversity: The Consolidation and Dissolution of Cahokia, Native North American's First Urban Polity. In *Beyond Collapse: Archaeological Perspectives on Resilience, Revitalization, and Transformation in Complex Societies*, edited by Ronald K. Faulseit, pp. 147–175. Occasional Paper No. 42. Center for Archaeological Investigations, Southern Illinois University, Carbondale.
- Esarey, Duane 2000 Late Woodland Maples Mills and Mossville Phase Sequence in the Central Illinois River Valley. In *Late Woodland Tradition and Transformation Across the Midcontinent*, edited by Thomas E. Emerson, Dale L. McElrath, and Andrew C. Fortier, pp. 387–410. University of Nebraska Press, Lincoln.
- Finney, Fred A. 1993 Cahokia's Northern Hinterland as Viewed from the Fred Edwards Site in Southwest Wisconsin: Intrasite and Regional Evidence for Production, Consumption, and Exchange. PhD dissertation, Department of Anthropology, University of Wisconsin-Madison, Madison.
- Finney, Fred A. 2013 Intrasite and Regional Perspectives on the Fred Edwards Site and the Stirling Horizon in the Upper Mississippi Valley. *Wisconsin Archeologist* 94:3–248.
- Finney, Fred A., and James B. Stoltman 1991 The Fred Edwards Site: A Case of Stirling Phase Culture Contact in Southwestern Wisconsin. In *New Perspectives on Cahokia: Views from the Periphery*, edited by James B. Stoltman, pp. 229–252. Monographs in World Archaeology No. 2. Prehistory Press, Madison, Wisconsin.
- Firth, Raymond 1983 *We, the Tikopia*. Stanford University Press, Stanford, California.
- Fogelin, Lars 2007 The Archaeology of Religious Ritual. *Annual Review of Anthropology* 36:55–71.
- Fogelin, Lars 2008 Delegitimizing Religion: The Archaeology of Religion as ... Archaeology. In *Belief in the Past: Theoretical Approaches to the Archaeology of Religion*, edited by David S. Whitely and Kelley Hays-Gilpin, pp. 139–142. Left Coast Press, Walnut Creek, California.
- Fortier, Andrew C. 2007 *The Archaeology of the East St. Louis Mound Center, Part II: The Northside Excavations*. Transportation Archaeological Research Reports No. 22. University of Illinois, Urbana-Champaign.
- Fowler, Melvin L., Jerome Rose, Barbara Vander Leest, and Steven A. Ahler 1999 *The Mound 72 Area: Dedicated and Sacred Space in Early Cahokia*. Reports of Investigations No. 54. Illinois State Museum, Springfield.
- Fowles, Severin M. 2013 *An Archaeology of Doings: Secularism and the Study of Pueblo Religion*. School for Advanced Research Press, Santa Fe, New Mexico.
- Frank, Andre Gunder 1993 Bronze Age World System Cycles. *Current Anthropology* 34:383–429.
- Friedman, Jonathan A., and Michael Rowlands 1978 Notes Towards an Epigenetic Model of the Evolution of Civilization. In *The Evolution of Social Systems*, edited by Jonathan A. Friedman and Michael Rowlands, pp. 201–276. University of Pittsburgh Press, Pittsburgh, Pennsylvania.
- Galloway, Patricia (editor) 1989 *The Southeastern Ceremonial Complex: Artifacts and Analysis*. University of Nebraska Press, Lincoln.
- Goldstein, Lynne 1980 *Mississippian Mortuary Practices: A Case Study of Two Cemeteries in the Lower Illinois Valley*. Scientific Papers No. 4. Northwestern University Archaeological Program, Evanston, Illinois.
- Griffin, James B. 1949 The Cahokia Ceramic Complexes. In *Proceedings of the Fifth Plains Conference for Archaeology*, edited by J. L. Campe, pp. 44–58. University of Nebraska, Lincoln.
- Griffin, James B. 1960 A Hypothesis for the Prehistory of the Winnebago. In *Culture in History: Essays in Honor of Paul Radin*, edited by S. Diamond, pp. 809–868. Columbia University Press, New York.
- Griffith, Roberta Jean 1981 *Ramey Incised Pottery*. Illinois Archaeological Society, Springfield.
- Hall, Robert L. 1991 Cahokia Identity and Interaction Models of Cahokia Mississippian. In *Cahokia and the Hinterlands: Middle Mississippian Cultures of the Midwest*, edited by Thomas E. Emerson and R. Barry Lewis, pp. 3–34. University of Illinois Press, Urbana.
- Hanenberg, Ned H. 2003 *The Range Site 3: Mississippian and Oneota Occupations*. Transportation Archaeology Research Reports 17. Illinois Transportation Archaeology Research Program, Urbana.
- Harn, Alan D. 1991 The Eveland Site: Inroad to Spoon River Mississippian Society. In *New Perspectives on Cahokia: Views from the Periphery*, edited by James B. Stoltman, pp. 129–153. Monographs in World Archaeology No. 2. Prehistory Press, Madison, Wisconsin.
- Hodder, Ian 2012 *Entangled: An Archaeology of the Relationships Between Humans and Things*. John Wiley and Sons, Oxford.
- Ingold, Tim 2007 *Lines: A Brief History*. Routledge, London.
- Iseminger, William 2010 *Cahokia Mounds, America's First City*. The History Press, Charleston, South Carolina.
- Jackson, Douglas K., Andrew C. Fortier, and Joyce A. Williams 1992 *The Sponeemann Site 2 (11-MS-517): The Mississippian and Oneota Occupations*. American Bottom Archaeology, FAI-270 Site Reports Vol. 24. University of Illinois Press, Urbana.
- Jackson, Douglas K., and Fred A. Finney 2007 Ceramics. In *The Archaeology of the East St. Louis Mound Center: Part II: The Northside Excavation*, edited by Andrew C. Fortier, pp. 663–714. Transportation Archaeological Research Program Research Reports No. 65. Department of Anthropology, University of Illinois, Urbana-Champaign.
- Joyce, Rosemary 2002 *The Languages of Archaeology: Dialogue, Narrative, and Writing*. Blackwell, Oxford.
- Kelly, John E. 1991 The Evidence for Prehistoric Exchange and Its Implications for the Development of Cahokia. In *New Perspectives on Cahokia: Views from the Periphery*, edited by James B. Stoltman, pp. 65–92. Monographs in World Archaeology No. 2. Prehistory Press, Madison, Wisconsin.
- Kelly, John E. 2005 The Archaeology of the East St. Louis Mound Center: Past and Present. In *The Archaeology of*

- the East St. Louis Mound Center: Part I: The Southside Excavations*, edited by Timothy R. Pauketat, pp. 1–42. Illinois Transportation Archaeological Research Reports No. 21. University of Illinois, Urbana.
- 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, Context*, edited by Adam King, pp. 57–87. University of Alabama Press, Tuscaloosa.
- King, Adam (editor) 2007 *Southeastern Ceremonial Complex: Chronology, Content, Context*. University of Alabama Press, Tuscaloosa.
- Kintigh, Keith W. 1984 Measuring Archaeological Diversity by Comparison with Simulated Assemblages. *American Antiquity* 49(1):44–54.
- Knight, Vernon James, Jr. 1989 Some Speculations on Mississippian Monsters. In *The Southeastern Ceremonial Complex: Artifacts and Analysis*, edited by Adam King, pp. 205–210. University of Nebraska Press, Lincoln.
- Knight, Vernon James, Jr. 2006 Farewell to the Southeastern Ceremonial Complex. *Southeastern Archaeology* 25:129–141.
- Knight, Vernon James, Jr., James A. Brown, and George E. Lankford 2001 On the Subject Matter of Southeastern Ceremonial Complex Art. *Southeastern Archaeology* 20:129–141.
- Lankford, George E. 2004 World on a String: Some Cosmological Components of the Southeastern Ceremonial Complex. In *Hero, Hawk, and Open Hand: American Indian Art of the Ancient Midwest and South*, edited by Richard F. Townsend, pp. 207–218. The Art Institute of Chicago, Yale University Press, New Haven, Connecticut.
- Lankford, George E. 2007 The Great Serpent in Eastern North America. In *Ancient Objects and Sacred Realms: Interpretations of Mississippian Iconography*, edited by F. Kent Reilly, III, and James F. Garber, pp. 107–135. University of Texas Press, Austin.
- Lankford, George E., F. Kent Reilly, III, and James F. Garber (editors) 2011 *Visualizing the Sacred: Cosmic Visions, Regionalism, and the Art of the Mississippian World*. University of Texas Press, Austin.
- Latour, Bruno 2005 *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford University Press, Oxford.
- Lechtman, Heather 1977 Style in Technology—Some Early Thought. In *Material Culture: Styles, Organization, and Dynamics*, edited by Heather Lechtman and Robert S. Merrill, pp. 3–20. West Publishers, St. Paul, Minnesota.
- Lemonnier, Pierre 1992 *Elements for an Anthropology of Technology*. Anthropological Papers No. 88. Museum of Anthropology, University of Michigan, Ann Arbor.
- Liebmann, Matthew, and Melissa S. Murphy 2011 Rethinking the Archaeology of “Rebels, Backsliders, and Idolaters”. In *Enduring Conquests: Rethinking the Archaeology of Resistance to Spanish Colonialism in the Americas*, edited by Matthew Liebmann and Melissa S. Murphy, pp. 3–18. School for Advanced Research Press, Santa Fe, New Mexico.
- Lightfoot, Kent G., and Antoinette Martinez 1995 Frontiers and Boundaries in Archaeological Perspective. *Annual Review of Anthropology* 24:471–492.
- Lyons, Patrick D. 2003 *Ancestral Hopi Migrations*. Anthropological Papers of the University of Arizona No. 68. University of Arizona, Tucson.
- McGuire, Randall H. 1983 Breaking Down Cultural Complexity: Inequality and Heterogeneity. In *Advances in Archaeological Method and Theory*, Vol. 6, edited by Michael B. Schiffer, pp. 91–142. Academic Press, Orlando, Florida.
- Meinkoth, Michael C. 1993 Middle Mississippian Households in the Central Illinois River Valley: Examples from the Tree Row and Baker-Preston Sites. In *Highways to the Past: Essays on Illinois Archaeology in Honor of Charles J. Bareis*, Illinois Archaeology, Vol. 5, edited by Thomas E. Emerson, Andrew C. Fortier, and Dale L. McElrath, pp. 315–330. Illinois Archaeological Society, Springfield.
- Meskel, Lynn 2005 Objects in the Mirror Appear Closer Than They Are. In *Materiality*, edited by Daniel Miller, pp. 51–71. Duke University Press, Durham, North Carolina.
- Miller, Jessica R. 2015 Interior Carbonization Patterns as Evidence of Ritual Drink Preparation in Powell Plain and Ramey Incised Vessels. *American Antiquity* 80:170–183.
- Millhouse, Phillip G. 2012 The John Chapman Site and Creolization on the Northern Frontier of the Mississippian World. PhD dissertation, Department of Anthropology, University of Illinois, Urbana-Champaign.
- Milner, George R. 1984 Social and Temporal Implications of Variation among American Bottom Mississippian Cemeteries. *American Antiquity* 49:468–488.
- Milner, George R. 1998 *The Cahokia Chiefdom: The Archaeology of a Mississippian Society*. Smithsonian Institution Press, Washington, DC.
- Mollerud, Katy J. 2005 Messages, Meanings and Motifs: An Analysis of Ramey Incised Ceramics at the Aztalan Site. Master’s thesis, Department of Anthropology, University of Wisconsin-Milwaukee, Milwaukee.
- Muller, Jon 1997 *Mississippian Political Economy*. Plenum Press, New York.
- Neuzil, Anna A. 2008 *In the Aftermath of Migration: Renegotiating Ancient Identity in Southeastern Arizona*. Anthropological Papers of the University of Arizona No. 73. University of Arizona, Tucson.
- Olsen, Bjørnar, Michael Shanks, Timothy Webmoor, and Christopher Witmore 2012 *Archaeology: The Discipline of Things*. University of California Press, Berkeley.
- Pauketat, Timothy R. 1992 The Reign and Ruin of the Lords of Cahokia: A Dialectic of Dominance. In *Lords of the Southeast: Social Inequality and the Native Elites of Southeastern North America*, edited by Alex W. Barker and Timothy R. Pauketat, pp. 31–52. Archeological Papers No. 3. American Anthropological Association, Washington, DC.
- Pauketat, Timothy R. 1994 *The Ascent of Chiefs: Cahokia and Mississippian Politics in Native North America*. University of Alabama Press, Tuscaloosa.
- Pauketat, Timothy R. 1997 Specialization, Political Symbols, and the Crafty Elite of Cahokia. *Southeastern Archaeology* 16:1–15.
- Pauketat, Timothy R. 2001 Practice and History in Archaeology: An Emerging Paradigm. *Anthropological Theory* 1:73–98.
- Pauketat, Timothy R. 2002 A Fourth Generation Synthesis of Cahokia and Mississippianization. *Midcontinental Journal of Archaeology* 27:149–170.

- Pauketat, Timothy R. 2003 Resettled Farmers and the Making of a Mississippian Polity. *American Antiquity* 68:39–66.
- Pauketat, Timothy R. 2004 *Ancient Cahokia and the Mississippians*. Cambridge University Press, Cambridge.
- Pauketat, Timothy R. (editor) 2005 *The Archaeology of the East St. Louis Mound Center: Part I: The Southside Excavations*. Illinois Transportation Archaeological Research Reports No. 21. University of Illinois, Urbana.
- Pauketat, Timothy R. 2007 *Chiefdoms and Other Archaeological Delusions*. AltaMira Press, New York.
- Pauketat, Timothy R. 2010 Of Leaders and Legacies in Native North America. In *The Evolution of Leadership and Complexity*, edited by John Kantner, Kevin J. Vaughn, and Jelmer Eerkens, pp. 169–192. School for Advanced Research, Santa Fe, New Mexico.
- Pauketat, Timothy R. 2013 *An Archaeology of the Cosmos: Rethinking Agency and Religion in Ancient America*. Routledge, London.
- Pauketat, Timothy R., and Thomas E. Emerson 1991 The Ideology of Authority and the Power of the Pot. *American Anthropologist* 93:919–941.
- Pauketat, Timothy R., and Thomas E. Emerson (editors) 1997 *Cahokia: Domination and Ideology in the Mississippian World*. University of Nebraska Press, Lincoln.
- Pauketat, Timothy R., Lucretia S. Kelly, Gayle J. Fritz, Neal H. Lopinot, Scott Elias, and Eve Hargrave 2002 The Residues of Feasting and Public Ritual at Early Cahokia. *American Antiquity* 67:257–279.
- Pauketat, Timothy R., and Susan M. Alt 2005 Agency in a Postmold? Physicality and the Archaeology of Culture-Making. *Journal of Archaeological Method and Theory* 12:213–237.
- Pauketat, Timothy R., Jeffery D. Kruchten, Melissa R. Baltus, Kathryn E. Parker, and Elizabeth Kassly 2012 An Ancient Medicine Lodge in the Richland Complex. *Illinois Archaeology* 24:1–25.
- Perino, Gregory 1971 The Mississippian Component at the Schild Site (No. 4), Greene County, Illinois. *Mississippian Archaeology in Illinois I: Site Reports from the St. Louis and Chicago Areas*. *Illinois Archaeological Survey Bulletin* 8:1–148.
- Phillips, Phillip, and James A. Brown 1984 *Pre-Columbian Shell Engravings from the Craig Mound at Spiro, Oklahoma*. Peabody Museum Press, Cambridge, Massachusetts.
- Price, T. Douglas, James H. Burton, and James B. Stoltman 2007 Place of Origin of Prehistoric Inhabitants of Aztalan, Jefferson Co., Wisconsin. *American Antiquity* 72:524–538.
- Reilly, F. Kent, III 2004 Visualizing the Sacred in Native American Art of the Mississippian Period. In *Hero, Hawk, and Open Hand: American Indian Art of the Ancient Midwest and South*, edited by Richard F. Townsend, pp. 125–137. The Art Institute of Chicago, Yale University Press, New Haven, Connecticut.
- Renfrew, Colin 1994 The Archaeology of Religion. In *The Ancient Mind: Elements of Cognitive Archaeology*, edited by Colin Renfrew and Ezra B. W. Zubrow, pp. 47–54. Cambridge University Press, Cambridge.
- Richards, John D. 1992 Ceramics and Culture at Aztalan, A Late Prehistoric Village in Southeast Wisconsin. PhD dissertation, Department of Anthropology, University of Wisconsin-Milwaukee, Milwaukee.
- Richards, John D. 2003 Collars, Castellations, and Cahokia: A Regional Aztalan Ceramic Assemblage. *Wisconsin Archeologist* 84:139–153.
- Richards, John D., and Seth Schneider 2013 Ceramic Paste Composition at Cahokia and Aztalan: A Comparison Using Portable X-ray Fluorescence and Ceramic Petrography. Paper presented at the 78th Annual Meeting of the Society for American Archaeology, Honolulu, Hawaii.
- Richards, John D., and Thomas J. Zych 2014 Making a Mound, Building a Community: Late Woodland/Mississippian Ritual Syncretism at the Aztalan Site. Paper presented at the Annual Meeting of the Midwest Archaeological Conference, Champaign, Illinois.
- Sabo, George, III 2008 Rock Art and the Study of Ancient Religions in Southeastern North America. In *Religion, Archaeology, and the Material World*, edited by Lars Fogelin, pp. 279–296. Occasional Paper No. 36. Center for Archaeological Investigations, Southern Illinois University, Carbondale.
- Sampson, Kelvin W. 1988 Conventionalized Figures on Late Woodland Ceramics. *Wisconsin Archeologist* 69:163–188.
- Silliman, Stephen W. 2005 Culture Contact or Colonialism? Challenges in the Archaeology of Native North America. *American Antiquity* 70:55–74.
- Slater, Philip A., Kristin M. Hedman, and Thomas E. Emerson 2014 Immigrants at the Mississippian Polity of Cahokia: Strontium Isotope Evidence for Population Movement. *Journal of Archaeological Science* 44:117–127.
- Southall, Aidan W. 1956 *Alur Society: A Study in Process and Types of Domination*. W. Heffer and Sons, Cambridge.
- Stein, Gill J. 2002 From Passive Periphery to Active Agents: Emerging Perspectives in the Archaeology of Interregional Interaction: Archaeology Division Distinguished Lecture AAA Annual Meeting, Philadelphia, December 5, 1998. *American Antiquity* 104:903–916.
- Stoltman, James B. 1991 Ceramic Petrography as a Technique for Documenting Cultural Interaction: An Example from the Upper Mississippi Valley. *American Antiquity* 56:103–120.
- Stoltman, James B. (editor) 1991 *New Perspectives on Cahokia: Views from the Periphery*. Monographs in World Archaeology No. 2. Prehistory Press, Madison, Wisconsin.
- Stoltman, James B. 2001 The Role of Petrography in the Study of Archaeological Ceramics. In *Earth Sciences in Archaeology*, edited by Paul Goldberg, Vance Holliday, and Reid Ferring, pp. 297–326. Kluwer Academic Plenum Publishers, New York.
- Stoltman, James B., Danielle M. Benden, and Robert F. Boszhardt 2008 New Evidence in the Upper Mississippi Valley for Premississippian Cultural Interaction with the American Bottom. *American Antiquity* 73:317–336.
- Studenmund, Sarah 2000 Late Woodland Occupations in the Lower Illinois River Valley: Research Questions and Data Sets. In *Late Woodland Tradition and Transformation Across the Midcontinent*, edited by Thomas E. Emerson, Dale L. McElrath, and Andrew C. Fortier, pp. 301–343. University of Nebraska Press, Lincoln.
- Townsend, Richard F. (editor) 2004 *Hero, Hawk, and Open Hand: American Indian Art of the Ancient Midwest and South*. The Art Institute of Chicago, Yale University Press, New Haven, Connecticut.
- VanDerwarker, Amber M., Gregory D. Wilson, and Dana N. Bardolph 2013 Maize Adoption and Intensification in the



- Central Illinois River Valley: An Analysis of Archaeobotanical Data from the Late Woodland to Early Mississippian Periods (A.D. 600–1200). *Southeastern Archaeology* 32:147–168.
- Wallerstein, Immanuel 1974 *The Modern World System: Capitalist Agriculture and the Origin of the European World-Economy in the Sixteenth Century*. Academic Press, New York.
- Wallerstein, Immanuel 1991 World Systems Versus World-Systems: A Critique. *Critique of Anthropology* 11(2):189–194.
- Waring, Antonio J., and Preston Holder 1945 A Prehistoric Ceremonial Complex in the Southeastern United States. *American Anthropologist* 47:1–34.
- Wernke, Steven A. 2011 Convergences: Producing Early Colonial Hybridity at a Doctrina in Highland Peru. In *Enduring Conquests: Rethinking the Archaeology of Resistance to Spanish Colonialism in the Americas*, edited by Matthew Liebmann and Melissa S. Murphy, pp. 77–102. School for Advanced Research Press, Santa Fe, New Mexico.
- White, Leslie A. 1959 *The Evolution of Culture*. McGraw-Hill, New York.
- Whitley, David S., and Kelley Hays-Gilpin 2008 Religion Beyond Icon, Burial and Monument: An Introduction. In *Belief in the Past: Theoretical Approaches to the Archaeology of Religion*, edited by David S. Whitley and Kelley Hays-Gilpin, pp. 11–22. Left Coast Press, Walnut Creek, California.
- Wilson, Gregory D. 1996 Insight Through Icons. *Illinois Archaeology* 8:23–37.
- Wilson, Gregory D. 2001 Crafting Control and the Control of Crafts: Rethinking the Moundville Greenstone Industry. *Southeastern Archaeology* 20:118–128.
- Wilson, Gregory D. 2011 Post-Cahokian Contact in the Central Illinois River Valley. Paper presented at the 76th Annual Meeting of the Society for American Archaeology, Sacramento, California.
- Wilson, Gregory D. 2012 Mississippian Migration and Emulation: Variability in Cahokia Contact Scenarios in the Illinois River Valley. Paper presented at the 69th Annual Meeting of the Southeastern Archaeological Conference, Baton Rouge, Louisiana.
- Wilson, Gregory D. 2015 Lamb Site Ceramics: Mississippianization in the Central Illinois River Valley. *Illinois Archaeology* 27:174–200.
- Wilson, Gregory D., Jon Marcoux, and Brad Koldehoff 2006 Square Pegs in Round Holes: Organizational Diversity Between Early Moundville and Cahokia. In *Leadership and Polity in Mississippian Society*, pp. 43–72. Occasional Paper No. 33. Center for Archaeological Investigations, Southern Illinois University, Carbondale.
- Wilson, Gregory D., and Amber M. VanDerwarker 2015 The Functional Dimensions of Earth Oven Cooking: An Analysis of an Accidentally Burned Maize Roast at the C. W. Cooper Site in West-Central Illinois. *Journal of Field Archaeology* 40:165–174.
- Wilson, Gregory D., Colleen M. Delaney, and Phillip G. Millhouse 2017 The Mississippian of the Illinois and Apple River Valleys. In *Mississippian Beginnings*, edited by Gregory D. Wilson, pp. 97–129. University Press of Florida, Gainesville.
- Witmore, Christopher 2014 Archaeology and the New Materialisms. *Journal of Contemporary Archaeology* 1:1–6.
- Wobst, Martin H. 1977 Stylistic Behavior and Information Exchange. In *For the Director: Research Essays in Honor of James B. Griffin*, edited by Charles E. Cleland, pp. 317–342. University of Michigan Museum of Anthropology, Ann Arbor.
- Yoffee, Norman 2005 *Myths of the Archaic State: Evolution of the Earliest Cities, States, and Civilizations*. Cambridge University Press, Cambridge.
- Zych, Thomas J. 2013 The Construction of a Mound and a New Community: An Analysis of the Ceramic and Feature Assemblages from the Northeast Mound at the Aztalan Site. Master's thesis, Department of Anthropology, University of Wisconsin-Milwaukee, Milwaukee.
- Zych, Thomas J. 2015 Aztalan's Northeast Mound: The Construction of Community. *Wisconsin Archeologist* 96:53–118.