

SOUTHEASTERN ARCHAEOLOGY

CERAMIC SHELL CUP EFFIGIES FROM ILLINOIS AND THEIR IMPLICATIONS

Laura Kozuch¹



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Ceramic effigies of marine shell cups have long been known from Mississippian sites in Illinois and elsewhere in the Southeast, and have been included in studies of other ceramic effigies, such as animal figures and head pots (Holmes 1886). This paper focuses on 31 known Illinois specimens. I will show that, in Illinois, the geographic range of these effigies is primarily restricted to the American Bottom around Cahokia, and their occurrence is largely limited to Late Mississippian Moorehead and Sand Prairie phases (A.D. 1200 to 1400). I also explore possible meanings of shell cups and, by extension, ceramic effigies of shell cups. Ethnohistoric as well as archaeological evidence show that lightning whelk cups and, by analogy, shell cup effigies functioned in contexts of uncertainty and conflict, consistent with their context in Illinois.

Ceramic effigies in the form of shell cups are sometimes recovered at archaeological sites in the Southeast, but they have not been the subject of focused, synthetic study, except for occasional inclusions with general ceramic effigy studies (Brown 2003; Chapman 1980; Holmes 1886). Shell cup effigies occur primarily at sites in the Mississippi River valley and its tributaries, although they have also been noted in southeastern Missouri and in Arkansas (Chapman 1980; House 2003; O'Brien 1994). Two were found at the Toqua site in Tennessee (Reed 1987).

This study focuses on the shell cup effigies from sites in Illinois. I document the occurrence of shell cup effigies in the state and argue that shell cup effigies in this area were used in place of—and therefore similarly to—actual lightning whelk (*Busycon sinistrum*) shell cups used in ceremonies. If we use ethnohistoric analogy, such ceremonies were performed for purification or renewal, or both, particularly before and after acts of warfare. At the *busk* or *poskita* ceremony, purifying liquids (black drink, or *caseena*) were consumed in copious quantities. These liquids were also poured on the body (Howard 1968:76). The purifying liquids were contained in lightning whelk cups (Kozuch 1998; Milanich 1979). Swanton noted that among one Coweta band of Creek people, “large conch shells” were still used in the busk ceremony in the 1920s and were held in great reverence (Swanton 1928b:503; see also Howard

1968). I explore the importance shell cups and, by extension, shell effigy vessels may have held for Late Mississippian people in what is now Illinois in light of ethnohistoric evidence and the archaeological contexts in which the artifacts occur.

Common and Scientific Nomenclature

A brief discussion of nomenclature is necessary at the outset. The terms “whelk” and “conch” are confusing. In the archaeological literature, the words are frequently used interchangeably. “Conch” is a common term for any large marine gastropod. “Whelk” is a more specific term meaning any animal belonging to the family Buccinidae; lightning whelks belong to this family.

Additionally, there has been confusion regarding scientific nomenclature of the lightning whelk, particularly since the accepted nomenclature has changed frequently in the last 60 years. Abbott (1974:222) calls the lightning whelk *Busycon contrarium*, whereas previously they were called *Busycon perversum* (Hollister 1958). In 1998 it was decided that the lightning whelk should be called *Busycon sinistrum* (Turgeon et al. 1998). Recent genetic research indicates that all sinistral (left-handed coiling) *Busycon* should be placed into one species, *Busycon perversum*, with a few subspecies (Wise et al. 2004); however, this suggestion has yet to be accepted. For now, lightning whelks are called *Busycon sinistrum*.

Among all the snail taxa in North America, the *Busycon* genus is the only one with a left-handed shell, with the exception of the tiny (6-mm long) *Triphora* (Rehder 1996:446), thus making identification of archaeological shells easier. Sinistral coiling direction is unique among snails in general. Other than *Busycon* species, almost all snail shells coil in the opposite (right-handed) direction or dextrally (Robertson 1993; Vermeij 1975). Zoologists don't know the reason for this distinctive coiling. (Stephen J. Gould [1995] wrote about the perplexities of lightning whelk sinistral coiling). Also worth noting is that there is a dextral whelk, the knobbed whelk (*Busycon carica*), which is practically an enantiomorph of the sinistral *Busycon* whelk shell. I am unaware of the use of dextral knobbed whelks as cups or for engraved artifacts at Mississippian sites.

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Table 1. Ceramic shell cup effigies from Illinois.

Vessel No.	Figure	Site or Locality	Context	Excavator and Date	Description	Institution	Accession and Catalog
1	3a	Cahokia	Monks Mound, West First Terrace	Bareis 1964	Reconstructed, Vessel C, 4 knobs around indented apex, fine grog temper	ISAS	05-02
2	3g	Cahokia	Monks Mound, South First Terrace	Bareis 1964	Spire only, at least 8 knobs around indented apex, fine grog temper, black burnish, recurving lip	ISAS	I6111
3		Cahokia	Pit north of Mound 34	Perino	No knobs, engraved curvilinear design, red slip (Braden A?)	Gilcrease Institute	
4	3h	Cahokia	Edwards Mound	Moorehead	Spire only, 4 knobs around indented apex, fine grog temper	ISAS	05-04, A00758
5	3b	Cahokia	Sawmill Mound	Moorehead	"Perfect bowl," 5 knobs around indented apex, shell temper	ISAS	I9865, A00306
6	3c	Cahokia	House context, Tract 15B	Wittry 1960s	Spire only, 8 knobs around indented apex, shell temper	Illinois State Museum	Acc. 1960-20, Bag #H112-16
7	3d	Cahokia	House context, Tract 15B	Wittry 1960s	Spire only, 7 knobs around indented apex, shell temper	Illinois State Museum	Acc. 1960-20, Bag #H112-4/5
8	3i	Cahokia	Sub Mound 51	Bareis 1967	Spire only, indented apex, 1 knob present, shell temper	ISAS	L1313, Bag 108-94
9	3e	Cahokia		Moorehead 1920s	5 knobs applied around indented apex	Illinois State Museum	1921-24 803650
10	3f	Florence Street	Feature 25, associated with scattered teeth of two children	FAI-270	Whole, 11 knobs around applied apex, shell temper	ISAS	07-05, Bag #79-250, Feat. 25-1, PP 3
11	3n	Florence Street	Feature 133 with one adult	FAI-270	9 knobs around indented apex, fine grog temper, red slip inside and outside	ISAS	05-02, Bag #79-1944, Feat. 133-1, PP 2
12	3m	Range	Feature 552	FAI-270	Broken spire, reconstructed, limestone tempered, red slip	ISAS	I0567, Bag #79-1334, Feat. 552
13		Schrader Cemetery			6 knobs around indented apex	private	
14		Thein			See Throop 1928	Unknown	208 (label on vessel)
15	3j	Crowley		Booth 2006	Spire only, 6 knobs around indented apex, shell temper	Cultural Resource Investigations	
16	3k	Russell	Feature 33		Spire only, 2 knobs plus linear appliqué	ISAS	Project Log 06157
17		Crabtree			See Walton 1962	Unknown	
18	3l	Larson			Spire only, min. 6 knobs, shell temper	Western Illinois University	
19	3o	Cahokia	Ramey Tract?		8 knobs applied to apex of vessel, shell temper	Madison County Historical Society	B-46
20	3p	Cahokia	Ramey Tract?		4 knobs around central apex, grit/grog temper?	Madison County Historical Society	B-46
21		St. Clair Co. (Cahokia?)			2 rows of knobs, 10 around indented apex, shell temper	Missouri Historical Society	Acc. 1891.1.75, 66-1318
22		St. Clair Co. (Cahokia?)			No knobs, apex only applied to outside, shell temper	Missouri Historical Society	Acc. 1891.1.674, 66-1217
23		St. Clair Co. (Cahokia?)			5 knobs and apex, shell temper	Missouri Historical Society	Acc. 1891.1.0025b, 66-1360
24		St. Clair Co. (Cahokia?)			7 knobs and apex, apex indented, shell temper	Missouri Historical Society	Acc. 1891.1.27, 66-1458
25	3q	St. Clair Co. (Cahokia?)			5 knobs around indented apex, fine grog temper	ISAS	Acc. 2005.009, 07-05
26	3r	Union Co.			7 knobs around indented apex	Field Museum	Acc. 662, cat. #55525
27	3s	Union Co.			No knobs, linear appliqué in spiral pattern	Field Museum	Acc. 662, cat. #55553
28	3t	Union Co.			5 knobs around apex	Field Museum	Acc. 662, cat. #55558
29	3u	Union Co.			2 small knobs on either side of apex	Field Museum	Acc. 662, cat. #55586
30	3v	Union Co.			4 knobs	Field Museum	Acc. 662, cat. #55594
31	3w	Union Co.			4 knobs, linear appliqué in spiral pattern like <i>Busycon sinistrum</i>	Field Museum	Acc. 662, cat. #55601

Shell Cup Effigy Vessels from Illinois

I have identified 31 shell cup effigies from Illinois; at least nine of these are from Cahokia. Table 1 provides summary data for these 31 specimens. Figure 1 shows

the location of the nine sites in Illinois from which shell cup effigies have been identified; Figure 2 documents the approximate locations from which specimens have been found at Cahokia. Images are not provided for all effigies, since the ownership or locations of some are

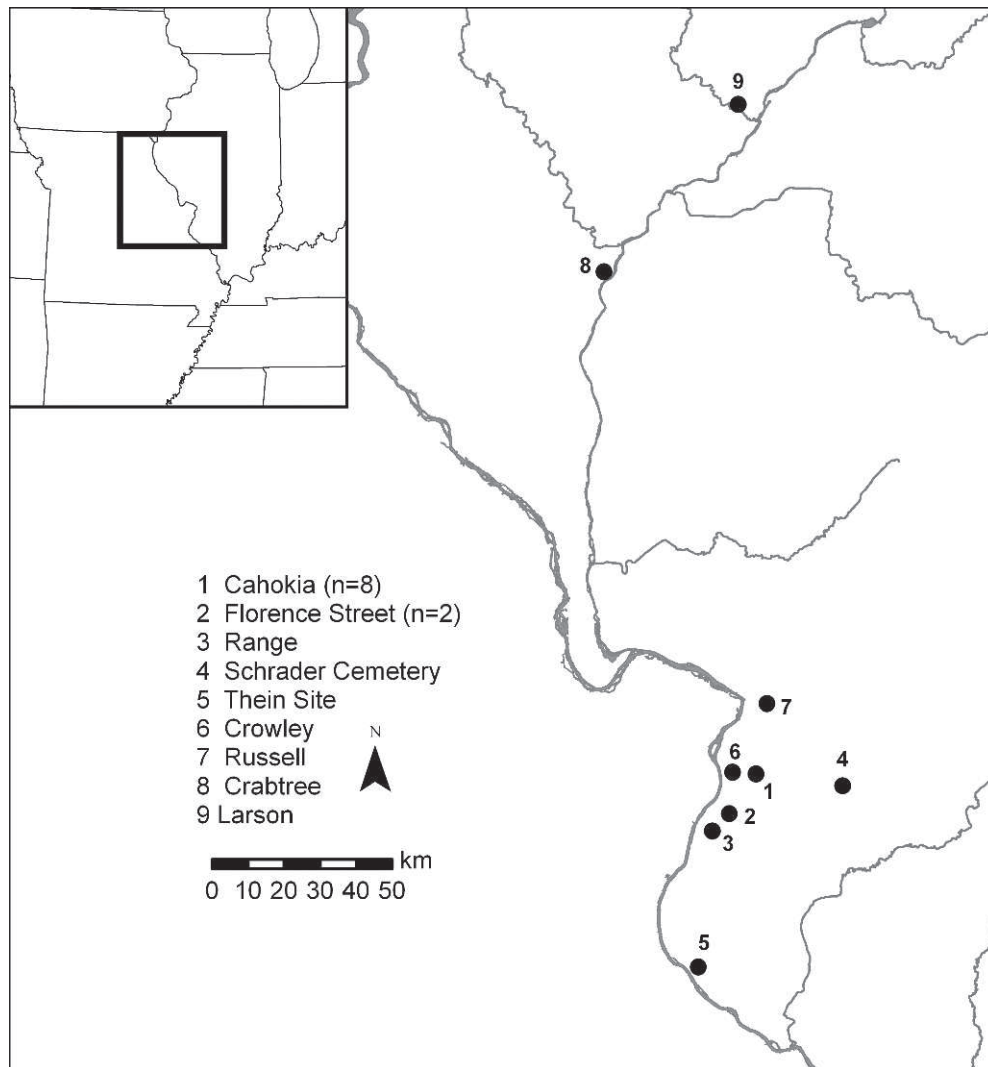


Figure 1. Locations of shell cup effigies from Illinois. Courtesy of the Illinois State Archaeological Survey.

unknown. Additionally, I was not permitted to take photographs of the specimens at the Missouri Historical Society.

Although provenience information is available for most specimens, 12 donated or privately held effigies have uncertain provenience. One is likely from the Schrader Cemetery (also known as Copper Village) (11S3), near Lebanon in St. Clair County, but is known only from a photo (Throop 1928). Another is probably from the Thein site (also known as Offermann's Farm) (11MO90) on the Mississippi River floodplain. Six effigies were donated to the Field Museum by Thomas M. Perrine. Based on his descriptions (Perrine 1873; 1874), coupled with site file information, these are probably from the Ware site (11U31) on the Mississippi River floodplain in Union County. Four specimens at the Missouri Historical Society have unclear provenience but are assumed to be from the Cahokia site (11MS2 or 11S34). Carl Chapman (1980:175) briefly

discusses shell cup effigies from St. Clair County housed at the Missouri Historical Society and has an image of one with five knobs; this appears to be one of the four specimens, or Vessel 23 (catalog #1891.1.0025b, 66-1360).

Those specimens with more certain locational information include eight from the Cahokia site. Two more are from the Florence Street site (11S458), and one each are from the Range site (11S47), the Crowley site (11MS2208), the Olin site (11MS133), the Russell site (11MS672), the Larson site (11F3), and the Crabtree site (also known as the Brown County Ossuary) (11BR5) (see photo in Walton 1962:Plate 28).

Nine effigy fragments are recognized as shell cup effigies because they are portions of the imitated "spire" end with knobs. Four effigy fragments from Cahokia were not initially recognized as portions of shell cup effigies at the time of excavation, but have been identified more recently (e.g., Hamlin 2004).

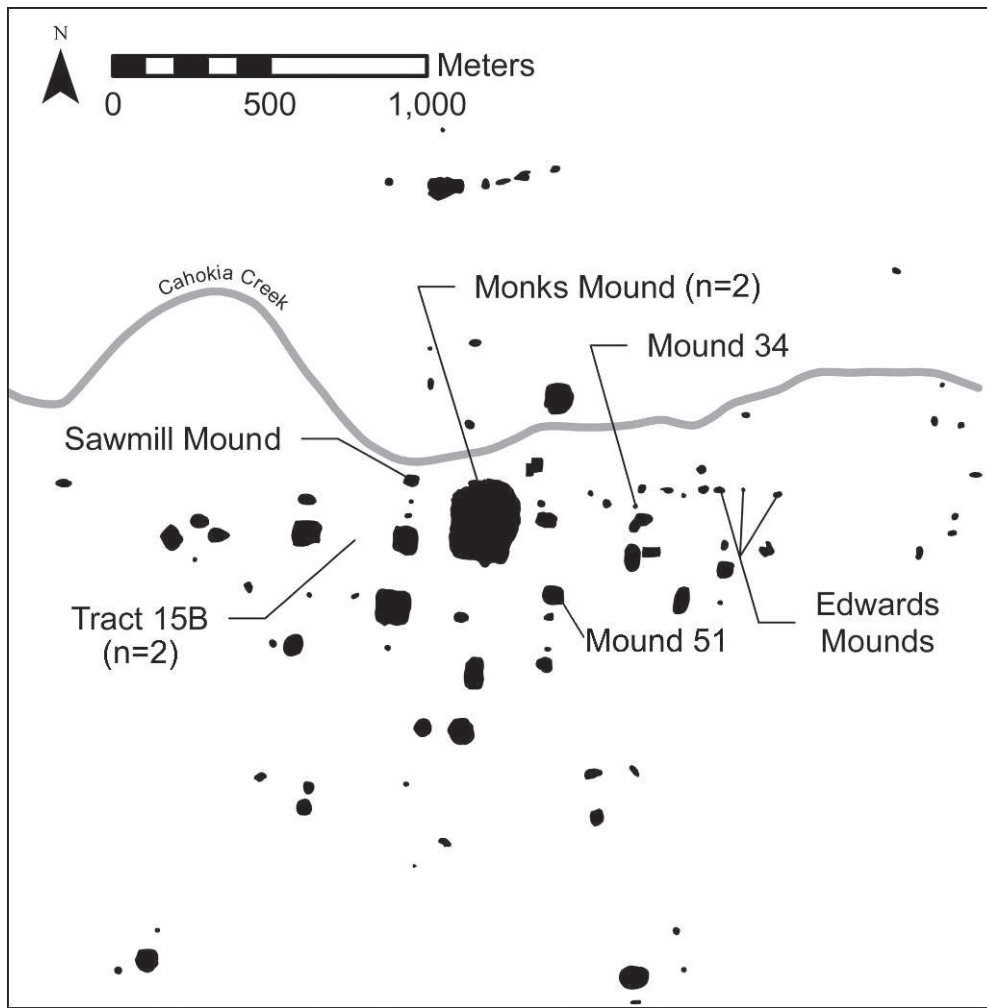


Figure 2. Locations of shell cup effigies at Cahokia. Courtesy of the Illinois State Archaeological Survey.

The nine total vessels known to be from Cahokia include two from Monks Mound (Vessels 1 and 2), one (fragment) from Edwards Mound (Vessel 4), one from Sawmill Mound (Vessel 5), one from the Mound 34 area (a refuse pit north of the mound) (Vessel 3), two from Tract 15B (Vessels 6 and 7), and one from a refuse pit beneath Mound 51 (Vessel 8); the last is known only to be from Cahokia with no further provenience information (Vessel 9). Vessel 9, a whole vessel, was donated by Warren K. Moorehead in the 1920s to the Illinois State Museum. It is unclear which of the three Edwards Mounds had the vessel fragment (Vessel 4). Seven additional specimens are said to be from Cahokia (housed at the Illinois State Archaeological Survey [ISAS], Madison County Historical Museum, and Missouri Historical Society) (Vessels 19–25), but specific locations within the site boundaries of Cahokia are not known.

Bareis (1964a, 1964b, 1975) briefly discussed the 1964 Monks Mound excavations from which two of these shell cup effigies were found. The complete specimen (Vessel 1), recognized as an effigy at the time of

excavation, was excavated from the western base of Monks Mound (First Terrace) in a burned structure (Feature 4) which Bareis (1964b) thought might be a house. The provenience details are not provided, but the grid coordinates for this feature (N199.108-202.108 E43.245-48.245) are given in his field notes (Bareis 1964b). Bareis (1964a:4) says that these excavations took place “along the western feather edge at the base of the mound.” Feature 4 was not fully excavated, but it yielded two other reconstructible vessels and a charred post, and burned thatch was noted on the floor. The other effigy, which consisted of a broken section of the spire portion (Vessel 2), was found along the southern base of the First Terrace of Monks Mound. Further provenience cannot be determined (Bareis 1975). It may have had a double row of knobs around the central apex. The Moorehead/Sand Prairie phase¹ association for both of these Monks Mound effigies was made by Thomas Emerson and Andrew Fortier (personal communication 2007).

I have not examined the effigy vessel (Vessel 3) excavated near Mound 34. This vessel was illustrated

by Galloway (1989:195), who associated it with Braden A engravings. It was excavated by Gregory Perino in a "refuse pit" north of Mound 34. According to his unpublished manuscript (Perino ca. 1960):

Another refuse pit contained classic old village materials which consisted of three drilled pottery disc beads, many ramey incised sherds, a fine restorable incised red conch-shell effigy vessel. One long barbed, ground bone projectile point, dog jaws and bones, duck, geese and deer bones, a beaker handle, a duck effigy head, three bone awls, one large double pointed and fluted awl, two sandstone awl sharpeners, and fragments of other incised vessels [emphasis added].

Hamlin (2004) assigns Mound 34 to the Moorehead phase, but the temporal affiliation of the refuse pit where the vessel was found is unknown and may not be Moorehead phase.²

The shell cup effigy fragment (Vessel 4) from one of the Edwards Mounds was excavated by Moorehead in 1922. He called these earthworks Mounds 19, 20, and 21 (Moorehead 1923:12). He encountered human burials in these mounds, but further contextual information has been lost. Fowler (1997) called these Mounds 24, 25, and 26, and Hamlin (2004) assigns these mounds to the Moorehead phase.

The Sawmill Mound contained human burials, and the shell cup effigy (Vessel 5) from this mound is burial related. Moorehead published a picture of this vessel (Moorehead 1928:Plate XXIX). Fowler (1997) identifies Sawmill Mound as Mound 39, just northeast of Monks Mound.

The two effigy fragments from Tract 15B, House 112 (Vessels 6 and 7) were excavated from a village area just west of Monks Mound in 1960 by Warren Wittry (Pauketat 2013). They are both from the same house. The burned house has a Moorehead or Sand Prairie phase association.

The effigy fragment from the refuse pit beneath Mound 51 (generally known as Sub-Mound 51) (Vessel 8) was excavated by Charles J. Bareis in 1967 as part of a University of Illinois field school (Bareis 1967; Cahokia field school notes on file at the Illinois State Archaeological Survey, Urbana). It is from Zone G, which has been identified as a Lohmann phase context (Pauketat et al. 2002).

As noted above, several other effigy vessels are associated with the Cahokia site with varying degrees of certainty. The effigy donated by Moorehead to the Illinois State Museum in 1921 (Vessel 9) is also identified in accession records as "from Cahokia," and there is no reason to doubt this.

The Madison County Historical Society has two shell cup effigies on display (Vessels 19 and 20). These are both said to be from Cahokia, Madison County, and are from the John Rathburn Sutter collection. A typewritten, one-page text by Mrs. V. H. Mindrup mounted next to the exhibit at the Madison County Historical

Society, Edwardsville, dated July 1985, states, "According to Mr. Sutter's daughter-in-law, he acquired most of his collection from the Thomas T. Ramey family who from 1868–1925 owned the farm on which Monks Mound is located."

As previously stated, four shell cup vessels (Vessels 21–24) donated to the Missouri Historical Society in 1891 are all said to be from St. Clair County and assumed to be from Cahokia. Another (Vessel 25) was donated to ISAS and may be from Cahokia, but this cannot be verified.

Five specimens (with definite provenience) were found in the American Bottoms outside of the Cahokia site. Two of these were excavated from the Florence Street site in the late 1970s (Emerson et al. 1983:Figures 97–99), and are both associated with human remains. Vessel 10 was found in Feature 25 with the teeth of two children, and Vessel 11 was recovered from Feature 133 with the remains of one adult. These features were initially interpreted as Sand Prairie phase, but later revisions place them in Late Moorehead or Sand Prairie phase (Emerson and Hargrave 2000:6).

Addison J. Throop's (1928:41) publication is the source of information about the one specimen (Vessel 14) from Monroe County at the Thein site (probably the Offerman Mound) near Fults, Illinois. Throop published a photograph of the effigy vessel, and the description says it is about "three inches tall." It seems very much like other shell cup effigies in form and knob placement.

Don Booth (2006) recently excavated a shell cup effigy fragment (Vessel 15) from the Crowley site. It was found in a subsoil context with a cache of lithics and another shell-tempered vessel, but the phase association is unclear.

One specimen (Vessel 12) from the Range site is an outlier in several respects. It is the only shell cup effigy to come from a known Terminal Late Woodland (Lindeman phase) house context (Feature 552) and the only one known with limestone temper. It was defined as a Monks Mound Red vessel (Kelly et al. 2007b:Figure 13.9) and called a gourd effigy by Kelly et al. (2007b:370). I identify it here as a shell cup effigy. It also may not have any knobs, but the portion of the vessel imitating the "spire" of the shell is broken.

Four specimens are from bluff-top sites. These include the effigy vessel (Vessel 16) recovered from a recent excavation at the Russell site, north of Cahokia (Zych and Koldehoff 2007); it is from a Moorehead phase structure about 20 m² in area. The previously mentioned specimen from the upland Schrader Cemetery (Vessel 13) is privately owned; collections from this site have been examined by Koldehoff et al. (1993:338), who determined that the ceramics indicate a Late Mississippian component. The current location of the specimen from the blufftop Crabtree site (Vessel 17) (Snyder 1908: Figure 10; Walton 1962) is unknown.

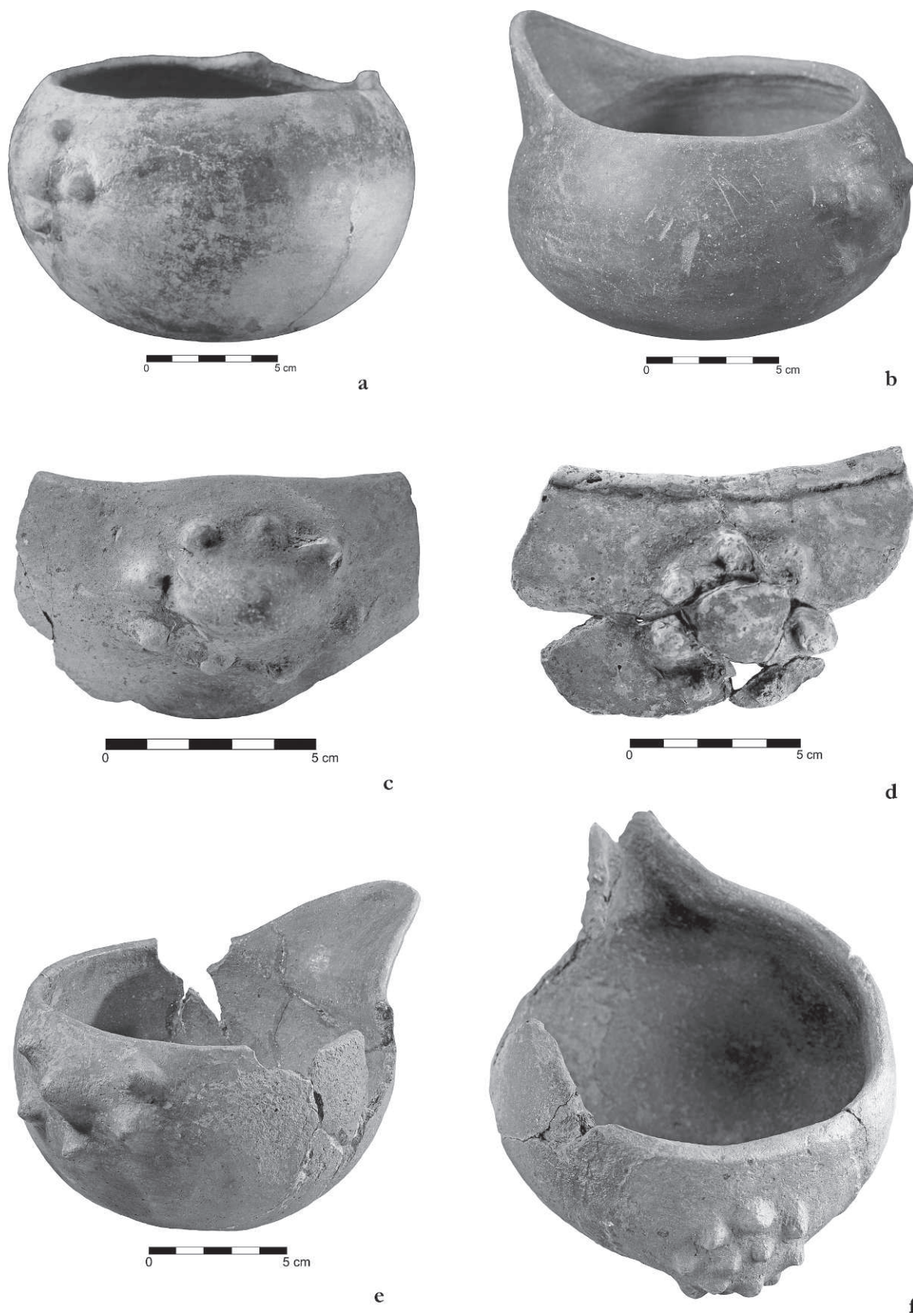


Figure 3. Effigy vessels and vessel fragments: (a) Cahokia Monks Mound West First Terrace (Vessel 1); (b) Cahokia Sawmill Mound (Vessel 5); (c) Cahokia, Tract 15B (Vessel 6); (d) Cahokia, Tract 15B (Vessel 7); (e) Cahokia, unknown provenience (Vessel 9); (f) Florence Street, Feature 25 (Vessel 10). a–d and f are courtesy of the Illinois State Archaeological Survey; e is courtesy of the Illinois State Museum.



g



h



i



j



k



l

Figure 3. continued: (g) Cahokia, Monks Mound South First Terrace (Vessel 2); (h) Cahokia, Edwards Mound (Vessel 4); (i) Cahokia, Sub-Mound 51 (Vessel 8); (j) Crowley (Vessel 15); (k) Russell (Vessel 16); (l) Larson (Vessel 18). g-i and k are Courtesy of the Illinois State Archaeological Survey; j is courtesy of Don Booth, Cultural Resource Investigations; l is courtesy of Lawrence A. Conrad, Western Illinois Archaeological Research Center.

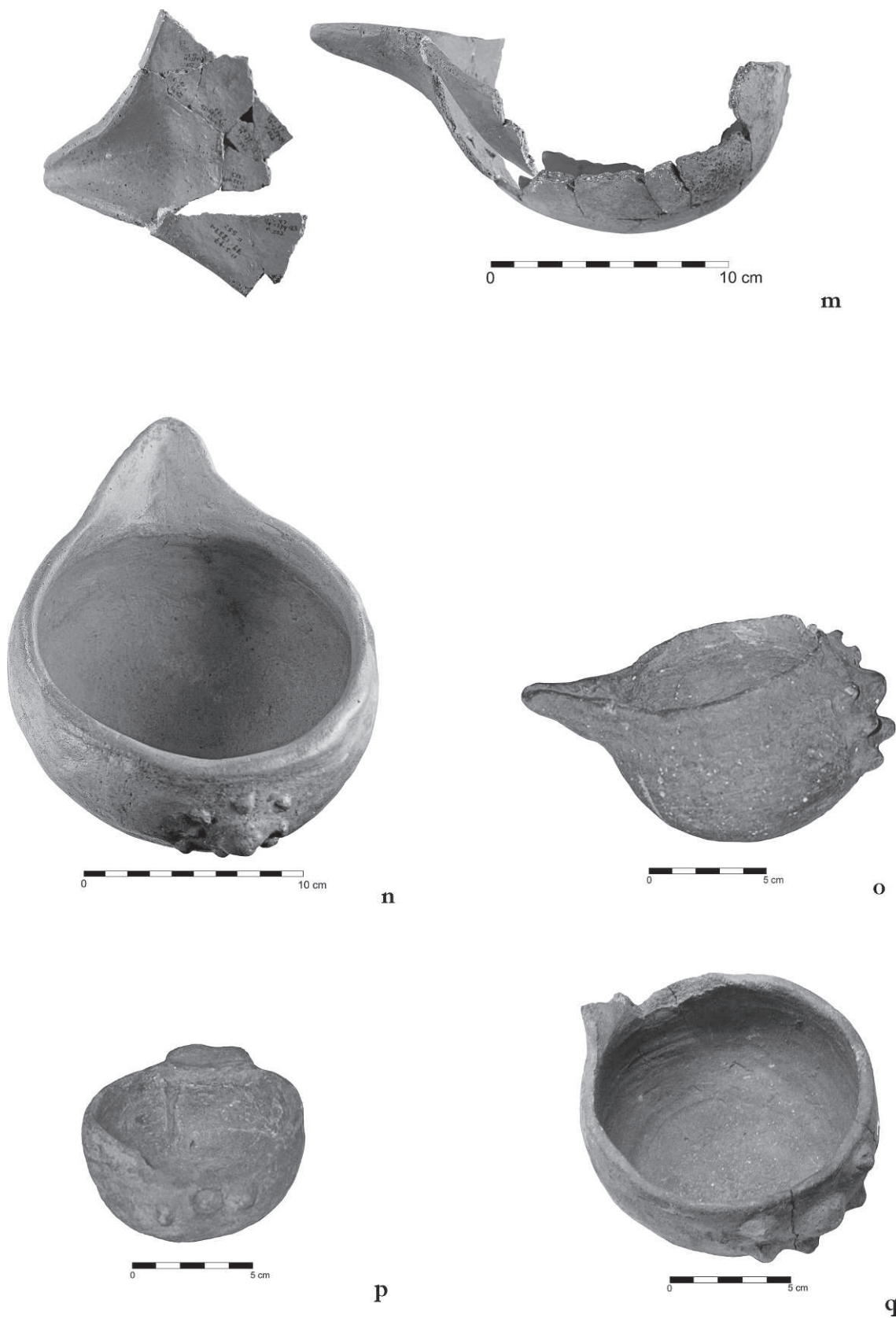
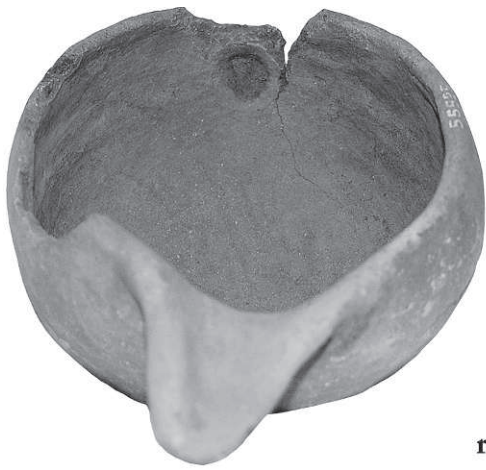


Figure 3. continued: (m) Range (Vessel 12); (n) Florence Street, Feature 133 (Vessel 11); (o) Cahokia (Ramey Tract?) (Vessel 20); (p) Cahokia (Ramey Tract?) (Vessel 19); (q) Cahokia? (Vessel 25). All courtesy of the Illinois State Archaeological Survey.



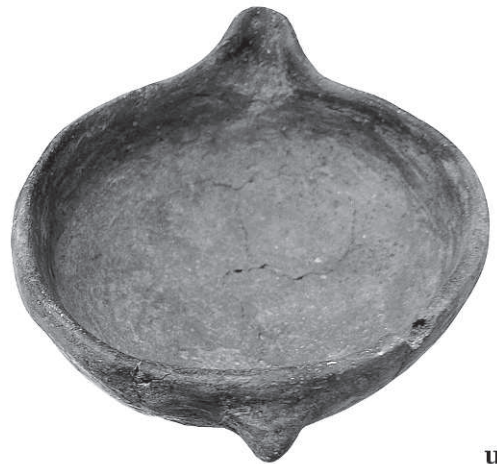
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Figure 3. continued: (r) Union County (Vessel 26); (s) Union County (Vessel 27); (t) Union County (Vessel 28); (u) Union County (Vessel 29); (v) Union County (Vessel 30); (w) Union County (Vessel 31). All courtesy of the Field Museum.

Finally, there is the fragment of an effigy vessel from the Larson site (Vessel 18) on the bluff of the Spoon River; the nature of the salvage excavation precluded any contextual information, except that it is Mississippian (Harn 1999).

The six shell cup effigies (Vessels 26–31) from Union County are of uncertain provenience. They seem to be from one site in the Mississippi River Valley, near an old river channel (Field Museum of Natural History, Anthropology Section, Accession 662, notebook, page 3, no. 20 to 26). Perrine called the site the Brewer Farm (Perrine 1873, 1874) which may be the Ware site but this is not certain.

Physical Descriptions of the Shell Cup Effigies

Whenever possible, I recorded maximum length, maximum vessel width, and maximum lip width for the shell cup effigies. Measurements were possible for only 12 specimens; the other specimens are fragmentary or known only from images. Maximum length for the measurable specimens ranges from 13.3 to 28.5 cm, with an average of 19.0 cm. These exhibited an average maximum width of 14.5 cm, ranging from 10.3 to 20.5 cm.

On the specimens I have been able to examine, the center-most, simulated “apex” portion is almost always indented from the vessel interior in order to form a round bump on the exterior. This imitation of the shell’s apex is sometimes augmented by an additional appliqué. Only two vessels have the apex appliqué only; these are the Florence Street vessel from Feature 25 (Vessel 10) and one of the vessels (Vessel 22) housed at the Missouri Historical Society.

The knobs around the simulated apex of vessel are appliqué on the vessel exterior in geometric patterns and rarely arranged in rows. The average number of knobs around the central apex is 5.4, ranging from 0 ($n = 3$) to 11 ($n = 1$). The arrangement of knobs provides evidence that the vessels were imitations of lightning whelk cups, a point I discuss below.

One incomplete specimen (Vessel 2), from the southern base of Monks Mound, has an unusual recurving lip (see Figure 3g) (this is also the only black burnished specimen [see below], and it may have had a double row of knobs). The lips on other vessels are simple and straight, with some slightly incurving.

Only the vessel from near Mound 34 at Cahokia (Vessel 3) is engraved. This has a curvilinear design which Galloway (1989:195) calls Braden A-related and assigns to the Stirling phase (A.D. 1100–1200). The context is unclear because it is from a refuse pit north of Mound 34 and the phase association is suspect.

Four specimens had coloration. One specimen, the vessel fragment from the southern base of Monks

Mound (First Terrace) at Cahokia (Vessel 2), was burnished black. Three vessels have a red slip on the exterior surface: the example from the Range site (Vessel 12); the vessel from north of Mound 34 at Cahokia (Vessel 3); and one of the specimens from the Florence Street site (Vessel 11) (this vessel was also red-slipped on the interior).

Of the specimens with known temper descriptions ($n = 19$), 63 percent are shell tempered, and 32 percent have fine grog temper. Only one specimen, the Range site vessel, was tempered with limestone.

Discussion

Cahokia seems to have been the epicenter of shell cup effigy use and deposition, at least relative to sites in Illinois. Nine (30 percent) of the specimens are definitely from Cahokia. Within Cahokia, Monks Mound and areas near it have produced four. Seven (23 percent) specimens are purportedly from Cahokia. If we assume that these presumed “Cahokia” locations are correct, then about half of these effigies in Illinois are from Cahokia.

The great majority (93 percent) of shell cup effigies is clearly Mississippian, more specifically Late Mississippian, or Moorehead/Sand Prairie phase (67 percent). A clear temporal trend is thus apparent; although shell cup effigies were part of the repertoire of ceramic vessels since the Terminal Late Woodland Lindeman phase, as evidenced by the Range site vessel described above, they became much more common in Late Mississippian times.

Only 10 of the shell cup effigies come from known, specific feature types. Of these, 50 percent were associated with houses or burned structures, 20 percent with cache/refuse pits, and 30 percent with human burials.

That these ceramic vessels are intended to mimic lightning whelk shell cups is perhaps best epitomized by two vessels: one from the Florence Street site (Vessel 11), and one from Union County (Vessel 31). The coiling in both depicts sinistral spirals. Figure 4 is a close-up of the Vessel 11, and Figure 5 shows the apex of an actual lightning whelk shell cup. See Figure 3w for an image of the Union County vessel. The vessels strongly suggest that lightning whelk shell cups were the intentional objects of their effigies, and that the ceramic vessels were presumably imbued with the same salient qualities.

Lightning whelks were the material of choice for Mississippian shell cups, as well as shell beads and gorgets (Kozuch 1998; Milanich 1979). Of course, these and other marine shells were also used for utilitarian tools, especially in coastal areas (Koob 1996; Marquardt 1992). It must also be noted that the use of lightning



Figure 4. Close-up view of the Florence Street effigy (Vessel 11) showing apex. Courtesy of the Illinois State Archaeological Survey.

whelk cups goes back at least to Archaic times (Marquardt and Watson 2005). Still, lightning whelks appear to have taken on increased, or at least more extensive, importance for ceremonial purposes during the Mississippian period, for beads, cups, gorgets and other artifacts. At Cahokia, thousands of marine shell beads have been excavated, including 30,742 columella beads from Feature 236 in Mound 72 (Fowler et al. 1999:136; Kozuch 1998, 2007).

The overwhelming preference for lightning whelks for the production of shell cups, gorgets, pendants and other artifacts has never been adequately addressed (but see Milanich 1979:86). It has been proposed that marine shells were favored because they are white (e.g., Claassen 1998), but if that were true than any large marine shell would have sufficed since all are white when the periostracum (thin exterior coating) is no

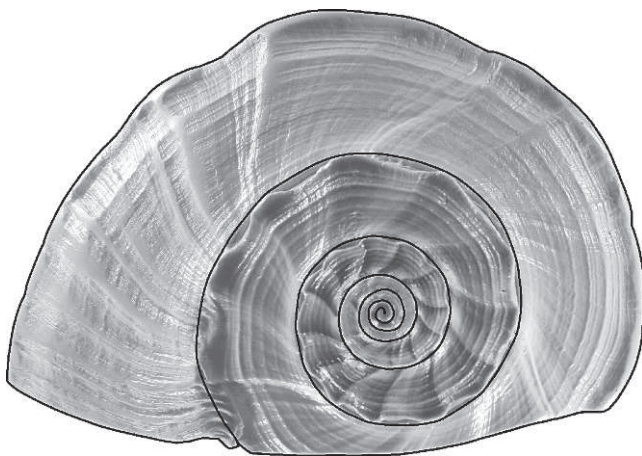


Figure 5. Close-up view of apex on reproduction lightning whelk cup. Courtesy of the Illinois State Archaeological Survey.

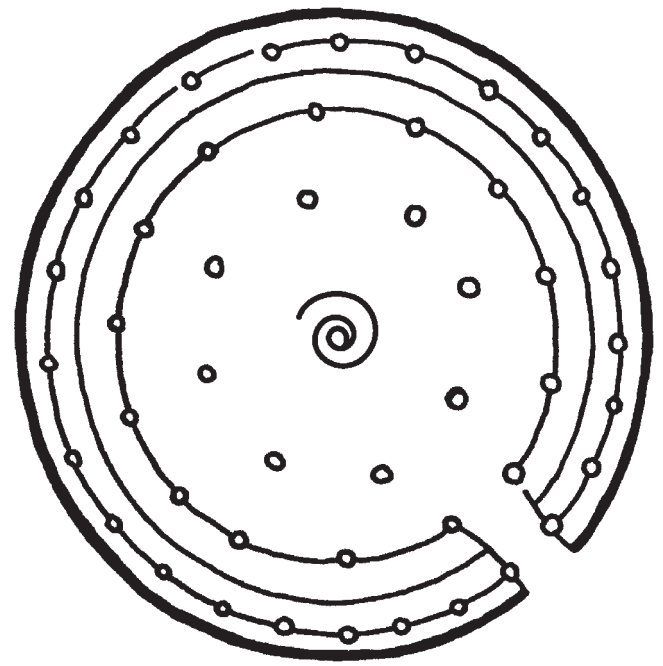


Figure 6. Bartram's depiction of a spiral fire (after Bartram 1853:Figure 3).

longer present (except for *Spondylus* spp. and *Chama* spp. clam shells).

Ethnohistoric accounts provide clues for understanding the preference for lightning whelk artifacts. Specifically, these accounts suggest that meaning(s) was attributed to the spiral that appears on the outside of lightning whelk shells. By extension, ceramic shell cup effigies would have the same meaning.

The best source for spiral ideology is William Bartram, who traveled among the Southeastern tribes in the 1770s. Bartram is well known for his accurate descriptions of natural and cultural environments. He published two major works in which the black drink ceremony is described. Bartram made it clear that shell cups were an important container for black drink (made with *Ilex vomitoria* and other plants), and that the sacred fire, which was essential to the ceremony, progressed in a clockwise spiral. The fire was built purposefully in a linear spiral, which was lit from the outside to travel clockwise toward the center. This same spiral appears naturally on lightning whelk shells and shell cups. A 1789 drawing of the sacred, spiral fire is presented in Bartram (1853:54) and reproduced here as Figure 6. A slightly later publication has the following narrative description (Bartram 1928 [1791]: 357–358; emphases added):

As their vigils and manner of conducting their vespers and mystical fire in this rotunda, are extremely singular, and altogether different from the customs and usages of any other people, I shall proceed to describe them. In the first place the governor ...with his servants attending, orders the black drink

to be brewed ...this is done under an open shed or pavilion, at twenty or thirty yards distance, directly opposite the door of the council-house. Next he orders bundles of dry canes to be brought in: these are previously split and broken in pieces to about the length of two feet, and then placed obliquely crossways upon one another on the floor, forming a spiral circle round about the great centre pillar, rising to a foot or eighteen inches in height from the ground; and this circle spreading as it proceeds round and round, often repeated from right to left, every revolution encreases [sic] its diameter, and at length extends to the distance of ten or twelve feet from the centre, more or less, according to the length of time the assembly or meeting is to continue. By the time these preparations are accomplished, it is night, and the assembly have taken their seats in order. The exterior extremity or outer end of the spiral circle take fire and immediately rises into a bright flame (but how this is effected I did not plainly apprehend; I saw no person set fire to it; there might have been fire left on the earth, however I neither saw nor smelt fire or smoke until the blaze instantly ascended upwards), which gradually and slowly creeps round the centre pillar, with the course of the sun, feeding on the dry canes, and affords a cheerful, gently and sufficient light until the circle is consumed, when the council breaks up.... The assembly being now seated in order, and the house illuminated two middle aged men, who perform the office of slaves or servants, pro tempore, come in together at the door, each having very large conch shells full of black drink, and advance with slow, uniform and steady steps, their eyes or countenances lifted up, singing very low but sweetly.

The sun's course is mentioned another time to describe dancing in general (Bartram 1928 [1791]:396; emphasis added):

They have an endless variety of steps, but the most common ...is a slow shuffling alternate step; both feet move forward one after the other, first the right foot foremost, and next the left, moving one after the other in opposite circles, i.e., first a circle of young men, and within, a circle of young women, moving together opposite ways, the men with the course of the sun, and the females contrary to it.

A separate account from Hawkins in about 1798 (in Swanton 1928a:178) also stated that the sacred fire among Creek people is "laid in a spiral circle."

Circular directionality was important to Southeastern peoples. However, as these accounts indicate, their custom was to denote this directionality with spirals, not circles and arrows as we are more accustomed. One spiral denoted clockwise, and the other denoted counterclockwise. The clockwise spiral was understood to represent the course of the sun, while the counterclockwise spiral was understood to go in the opposite direction. The critical point is that direction was always conceived as moving in, toward the center of the spiral. This concept is not readily apparent to most of us today, since we do not generally conceive of spirals as embodying specific directions.

Although we commonly conceive of the sun as traveling in a counterclockwise direction (east to west), this is only true if one is facing north; the sun travels clockwise if one is facing south. Our cultural predis-

position to view the directionality of the sun in reference to north has, in my opinion, hindered studies of Mississippian ideology. The key vantage point for determining circular directionality with snail shells is toward the center when viewing the shell from the top (i.e., apical view).

Fire was thought by Southeastern tribes to be the sun's representative on earth (Bell 1990; Lankford 1987; Swanton 1928c). Hence, the sun in the sky was intimately associated with fire. At the paramount ceremony of the year, the busk, all fires were extinguished and a new fire was created. The new fire was then brought to all campsites. The busk ceremony also involved cleansing, and purifying liquids were drunk, sometimes in copious quantities.³

The clockwise spiral (sun's path) signified a path toward (but not necessarily resulting in) death, and was akin to the sun's path. This is exemplified in the drawing of the funeral of "Stung Serpent" the Natchez leader (du Pratz 1975 [1774]:339). His burial procession proceeded along a clockwise path toward his final resting place. Indeed, Natchez leaders were called "Suns" (du Pratz 1975 [1774]). This ideational correlation is shown by other ethnohistoric texts, which observe that a dead person's spirit travels west or follows the sun (Hawkins in Swanton 1928b:514; Hennepin 1938 [1683]:175; Mooney 1992 [1891 and 1900]:246, 262; Schoolcraft in Swanton 1928b:513; Swanton 1928b:512; Walker, in Nabokov and Easton 1989:111), or that the sun "dies" at sunset (Adair 1971 [1775]:80).

Lightning whelk shells, and by extension shell cup effigies, were important components of this cosmology. The sun's path was viewed as clockwise and in the direction of death. Thus, to drink from a cup displaying a clockwise spiral was to enter into an ambiguous state. Given this, it is perhaps not surprising that warriors would often take black drink both before and after battle. Taken together, the evidence suggests an association of lightning whelk cups, the sun, the sacred fire, and black drink with purification and death (Milanich 1979).

Lightning whelk shells were used almost exclusively for bead manufacture during Early Mississippian times at Cahokia, as epitomized by the concentration of *Busycon columella* beads from Mound 72 (Kozuch 2007), a Lohmann phase context. Almost no marine shell cups are known from Early Mississippian contexts at Cahokia. After A.D. 1200, tiny fragments of engraved lightning whelk cups were deposited at Cahokia (Brown and Kelly 2000; Trubitt 2005:257). As indicated above, shell cups and ceramic effigies of them are found much more frequently in Moorehead/Sand Prairie phases. The increased frequency of lightning whelk cups, and effigies of them, during Late Mississippian phases indicates increased need for purification

rituals and perhaps increased warfare during these times.

The construction of the palisade around downtown Cahokia during Moorehead times (Anderson 1969; Iseminger et al. 1990) is evidence for increased warfare, defense, or upheaval. Other sites near Cahokia were also palisaded during Late Stirling or Moorehead phases. These include East St. Louis (Pauketat 2005), Olin (Kelly et al. 2001), and Mitchell (Porter 1974). There is also evidence that the East St. Louis site (about 9.6 kilometers from Cahokia) was burned down and abandoned just before the Late Mississippian Moorehead phase (Pauketat 2005). The Mississippian Orendorf site in Fulton County (11F107) was also burned before abandonment at around A.D. 1250 (Esarey and Conrad 1981). As noted above, most shell cup effigies are fragments found in remains of structures which had sometimes been burned, another possible indication of conflict. If we take the view that Cahokia was on the brink of collapse, we might see that intensification of purification rituals was a response intended to forestall or mitigate the fall of this ritual and political center. The increase in conflict may have decreased the availability of shell cups (by limiting long distance trade and connectedness) at the same time they were increasingly sought after, thus leading to use of ceramic effigies in their stead.

It would not be prudent to extend ethnographic analogy back to Archaic times, even though lightning whelks were also targeted for artifact manufacture in the Archaic. My assertions apply only to Mississippian culture.

Other artifacts made from lightning whelks may help us to understand the use of shell cups and shell cup effigies. It is a misconception that the shell beads from Mound 72 at Cahokia are unidentifiable (Kehoe 2007:257). This is not the case, since 93 percent of the columella beads at Cahokia are clearly from sinistral whelk shells (Kozuch 1998:79). At least 30,742 sinistral whelk shell beads were found in an Early Mississippian Lohmann phase burial (Feature 236) at Cahokia's Mound 72 (Fowler et al. 1999:136), representing a huge input of time and resources (Kozuch 2007). Apparently lightning whelk shells were used almost exclusively for bead manufacture during Early Mississippian times. Most of the disk beads are also from marine shells and, although not identifiable to species, may possibly be made from lightning whelk shells. Almost no marine shell cups are found from Early Mississippian contexts at Cahokia. After A.D. 1200, tiny fragments of engraved lightning whelk cups were deposited at Cahokia (Brown and Kelly 2000; Trubitt 2005:257). Shell cups and effigies of them are found much more frequently in Moorehead/Sand Prairie phases.

For future studies, the presence of shell cup effigies might be used to identify Late Mississippian contexts of

population decline, conflict, and/or intensification of legitimation rituals. It would also be interesting to see if they usually date to the Late Mississippian in other areas of the Southeast. Another fruitful research direction is residue analysis, which has been successful in identifying *Ilex* residue in Cahokia beakers (Crown et al. 2012). This may help to confirm how shell cup effigies were used.

The availability, or lack, of lightning whelk shells seems to be a factor in the creation of ceramic shell cup effigies. This agrees with Cobb's assertion that there were periods during which lightning whelk shells were not available to inland Mississippian peoples (Cobb 1991). Cobb also postulated that marine shells were used as symbols to reproduce social systems. The work I present here presents specifics of how that may have been done, using concepts of circular directionality (via spirals), purification rituals, and liminality. Lightning whelk shells and effigies of them were instrumental in displaying such symbols, and since the shells weren't always available the effigies provided adequate substitutes.

Lightning whelk shell as a raw material was expensive. Early observers recorded the price and use of marine shells. Du Pratz (1975:290 [1774]) states that the "largest of the shell-fish on the coast is the Burgo, ...The shells have long been in request for tobacco-boxes" and (1975:364 [1774]) that the "womens ear-rings are made of the center part of a large shell, called burgo, which is about the thickness of one's little finger." John Lawson (1967:203) tells us that shell gorgets were highly valued, the going rate being three or four dressed buckskins. Although Adair does not give us the name of the shell, he does describe the cost of a shell bead as four deer skins (Adair 1971:178 [1775]).

The high cost of these shells may have contributed to the halting nature of shell availability to inhabitants of Cahokia and other Mississippian peoples. Such valued materials might have been targeted for theft, thus endangering successful transportation, maybe even the jeopardizing the lives of people transporting shells. They may have had to defend themselves, and their cargo, in order for them to reach their destinations. This may have been a risky business, indeed.

The evidence presented here raises questions about other artifacts made from lightning whelk shells—beads, pendants, and gorgets. What special significance, if any, was given beads? They were probably used to mark high status (Prentice 1987; Thomas 1996). Were lightning whelk shell gorgets also used to display circular directionality or liminality status, or were they used some other way? Were gorgets disassociated with the clockwise spiral because it was not visible on the portion of the shell from which it was made (outer whorl)? Perhaps shell gorgets took on whatever meaning imbued to them by the engravings etched on them, thus displacing any circular direction symbology.

Conclusion

I argue here that shell cup effigies became more important during Late Mississippian times in Illinois due to increased need for purification rituals and perhaps conflict. Both Cahokia and nearby East St. Louis sites were abandoned in the Late Mississippian and were in decline as ceremonial and political centers. As conflict rose, so did the need for more legitimation displays. This may also be evidenced by the increased diversity of faunal remains and other materials from Moorehead and Sand Prairie phase contexts (Brown and Kelly 2000; Hamlin 2004; Kozuch 2001); Cahokia's inhabitants may have been doing everything they could to try to maintain the centrality of their community.

The body of work on the iconographic engravings that appear on Mississippian shell cups is lengthy (Brain and Phillips 1996; Galloway 1989; Howard 1968; Phillips and Brown 1978; Reilly and Garber 2007). As valuable as these works are for the understanding of the cosmology of Mississippian societies, they do not associate spirals with the sun's path, and they thus do not explain why lightning whelk shells were the preferred medium for engraved imagery.

Lightning whelk shell cups were important cultural items, and their scarcity or absence was alleviated by ceramic shell cup effigies. Lightning whelks were necessary for purification and warfare rituals. If Mississippians conceptualized lightning whelk shells as the embodiment of a clockwise direction, or a path toward death, we begin to understand why Mississippian peoples made shell engravings almost exclusively on these shells (Kozuch 1998). Only lightning whelks display this spiral. Shell cup effigies then, were used instead of actual shell cups because they, and the spiral direction they represented, were a necessary part of warfare/death/purification ceremonies.

Notes

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¹ American Bottom chronology follows that of Fortier et al. 2006.

² The surface and most levels of Mound 34 are Moorehead/Sand Prairie phase (Kelly et al. 2007a). However, the effigy vessel was under the mound. The votive offering of marine shells and two freshwater mussels was from a feature beneath Mound 34 (Kelly et al. 2007a:72). Perino states, "Under the northwestern corner of Mound 34, a refuse pit was encountered which is forty-five inches wide, and fifty-eight inches deep. Heaped on the bottom was 210 conch [*sic*] shells.... Six inches of fill covered this caused by the action of water which had probably filled the pit causing the walls to crumble" (Perino ca. 1960).

³ Ethnohistoric accounts that mention shell cups as holding purifying liquids (black drink or casseena) include Adair (1971 [1775]), Bartram (1928 [1791]), Dickinson (1985 [1699]), a military ranger for General Oglethorpe in 1739–42 (in Mereness 1916), and Major Caleb Swan (in Schoolcraft 1855:266).

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