

## Religious Innovation at the Emerald Acropolis: Something New under the Moon

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*Among the ancients, a city was never formed by degrees, by the slow increase in the number of men and houses. They founded the city at once, all entire in a day ... [and it] was always a religious act.* (Numa Denis Fustel de Coulanges, 1864)

Fundamental relationships between religion and innovation, specifically as these were intertwined at the founding moments of ancient cities, are poorly understood. In the last twenty years, religion has become a focus of considerable concern in archaeology (Insoll 2011). But many archaeologists assume that religion is best defined as a set of codified conservative beliefs that endure despite the actions of people and the turnings of the world. Certain archaeological approaches to religion are even ethnocentric, hung up on religions as institutions and orthodoxies, swaying analysts to ignore the unofficial, quotidian, magical and spiritual practices of people less often depicted in official art and iconography (following Scott 1990).

Formal, belief-bound, institutional definitions of religion inhibit considering the religious dimensions of many kinds of relationships between people, places, things, and more. This is

particularly problematic in non-modern historical eras where people related to the world as if their histories, identities, and futures were bound to non-human sentient beings or other animate powers (Alberti, et al. 2011; Bird-David 1999; Harvey 2006). In those times and places, people lived and breathed their religions daily. Their actions were infused with religious associations and metaphors that in some way referenced, invoked, or presenced numinous powers. Did such entanglements underwrite the first cities?

Certainly, the first cities in their respective regions almost all came about during pre-modern eras when religion was not distinguished from politics, economics, or society (e.g., Marcus and Sabloff 2008; Smith 2003). Thus it should be no surprise that, according to the classic treatise by Fustel de Coulanges (1864), the early cities of the Mediterranean were founded on religious principles, if not actually established by the gods themselves working through human beings, places, or things. We can take Fustel de Coulanges' point further.

In the case of the indigenous pre-Columbian city of Cahokia in the Mississippi valley of North America, we find that the qualities of specific substances and landforms east of the soon-to-be city converged with other primal forces—ancestral spirits and beings/deities of the night sky—in ways that *caused* this singular indigenous experiment in urbanism. The city developed in short order during the mid-eleventh century AD. Nothing like it had ever existed before on the continent north of Mexico, although a series of “Mississippian culture” towns followed that, to varying extent, looked to the founding city as an archetype. In the end, Cahokia lasted but three hundred years, having shrunk to the size of a small town after 1250. When finally abandoned in the fourteenth century, its occupants moved away and forgot about their former home. An astonished Euroamerican lawyer was the first to take notice of its mounded ruins in

1810 (Brackenridge 1962).

As an example of early cities (if not also “the state”), we argue that Cahokia needs to be reconsidered as the byproduct of a momentous politico-religious movement that began with the powers of the substances and landforms east of the city. One of these landforms was the site of the Emerald acropolis, an elaborate shrine complex at which we have documented an array of associations between colored earth, mounds, special architectural constructions, upright wooden posts, human bodies, and the moon immediately before and during Cahokia's founding moment at ca. AD 1050 (Alt 2013; Pauketat, et al. 2013). These associations were realized through human experiences and were, we suggest, the pre-conditions for a centralization of power(s) and, ultimately, the founding of the American Indian city of Cahokia (Pauketat and Alt 2014; Pauketat, et al. 2015). The Emerald acropolis, that is, was the material embodiment of urbanism in the making.

### **Ontologies**

The conceptual problem of an archaeology of religion—that religion is epiphenomenal and of secondary importance until institutionalized—is rooted in a modernist ontology, which is to say a post-Enlightenment way (or theory) of being that relies on Cartesian philosophy. Priority in explanations is usually given to the mind (i.e., theoretical consciousness) over bodily experience (i.e., practical consciousness/embodied knowledge). From such modern vantage points, humans, beliefs, and institutions (a.k.a. “structures”) are qualitatively distinct from non-humans, embodied practices, or histories, respectively (Dobres 2000; Meskell 2004; Witmore

2007). Archaeologists working in such veins reason (based on unquestioned assumptions) that human beings, beliefs, and institutions were bounded entities removed from the continuous, dynamic, inter-subjective realm of physical experience, cultural practice, or performance.

But from alternative ontological perspectives, people are not the sole cause of human history, beliefs do not exist except as performed continuously, and institutions are only made to appear durable through physical constructions on, or “inscriptions” of, landscapes (e.g., Abrams 1988; Fowler 2004; R. A. Joyce 2004; Joyce and Hendon 2000; Pauketat 2004b, 2007). These alternative ontologies include a host of “animistic” or relational ways of being-in-the-world that are inseparable from people’s perception or sense of the world and the moving forces therein (Alberti, et al. 2011; Alberti and Marshall 2009). For instance, to varying degrees and in different ways, many people throughout history recognized non-human and even inorganic beings, bodies, and things as animate or in some ways powerful (Bird-David 1999; Harvey 2006). They perceived dreams as real extensions of one's soul (Irwin 1994). They identified themselves vis-a-vis cosmic relationships (Williamson 1984). Individual identities like those assumed to be natural today were uncommon outside Europe, especially before the Enlightenment (see Strathern 1988; Wagner 1991).

Such ontologies are not deep beliefs or even worldviews as much as they are repeated experiences in a world where forces or powers that influence the lives of people are dispersed across the landscapes of social experience. That the sun, rain, plants and animals are life-giving forces that affect human beings can be sensed daily; that the moon and stars follow patterned movements across the sky can be seen nightly. Few human beings living in such worlds would have categorically ranked people and their institutions above other beings and powers (Deloria

2003). Instead, many indigenous people sensed and yet sense intuitively or as second-nature—without much conscious, theoretical reflection (in the sense of Vico 1984)—that their personhood, agency, and power were not merely theirs alone (Hallowell 1960). It was instead shared or extended to other people, places, things, spirit guides, etc. (Irwin 1994). Agency and power resided at the intersections of any number of moving, animate, or sensuous beings and forces (Hultkrantz 1981). Spirits, gods, ghosts, life-forces, or other cosmic, causal powers might inhabit things or be presenced in landmarks, monuments, or places at key moments, enabling historical change. Heavenly bodies, atmospheric phenomena, animals, caves, springs, etc. might all become entangled with the world of people. Among many indigenous Prairie-Plains peoples of the historic era Midwest, for instance, the moon was a prominent feminine being of the night associated with ancestors, the earth, crops, and the underworld.

Invariably, beliefs were not understood to be conceptualizations distinct from the doing, living, and being of life (Fowles 2013). That is a modern Cartesian conceptualization (Morgan 2005). Native American religions were animistic, comprised of entangled relations of cosmic, human, and non-human forces. They were not abstract coda cognized after the fact and then represented or professed (Pauketat 2013). "We don't *believe* our religion" said a Plains Indian, "we dance it!" (Brown 1977, emphasis added). And the performing or doing of one's religion in such ways, unlike professing beliefs, has historical implications. Physically embodying, presencing, or emplacing the spiritual forces or numinous powers through practice entangled specific people, places, things, and substances with the greater order of the universe. A human being might embody such powers (e.g., a shaman or priest), but so might other beings, places, objects, substances (e.g., earth), or even qualities of experiences (e.g., sounds such as thunder).

Indeed, concentrations, “bundles,” or convergences of such powers define that which we ordinarily identify as religious phenomena (Pauketat 2013). But, depending on their qualities, especially their ability to be reiterated in practice, they shape the future terrain of human experience. They may attract people, alter residence patterns, or afford certain temporalities of experience (living your life vis-à-vis lunar cycles, for instance, will engender social rhythms beyond the everyday).

Religious beliefs, practices, and sacred experiences, that is, may be at the center of significant long-term and regional if not pan-continental social change such as the rise of cities. Indeed, the rise of the earliest cities, states or social classes, among other things—usually framed in political-economic terms—might be productively reconsidered as collective negotiations of the sacred (e.g., A. Joyce 2004). Such collective negotiations entail considering how peoples, places, things, substances, or phenomena are co-engaged in historical developments potentially providing, in turn, significant new insights into religion and cultural innovation generally.

### **A North American City and Its Shrines**

The development of the indigenous North American city of Cahokia presents us with potentially profound insights into such a co-engagement process. Heir to millennia of spacious mounded ceremonial centers in eastern North America (Anderson and Mainfort 2002; Sassaman 2010), Cahokia was an exceptionally large, planned, proto-urban and monumental complex of earthen pyramids and pole-and-thatch architecture at the heart of a region

populated by tens of thousands of people (Alt 2012; Pauketat 2004a; Pauketat, et al. 2015). It was an sprawling proto-urban complex consisting of at least 200 earthen platforms, including the third-largest pyramid in the Americas, Monks Mound, in terms of volume. Most of these people were sedentary farmers of maize, native starchy and oily seed crops, and squash (Lopinot 1997), leading some archaeologists to infer that Cahokia was the culmination of gradual social-evolutionary processes played out in the guise of unchanging religious principles (Brown 2006; Milner 1998).

However, multiple lines of archaeological evidence challenge that old scenario (Pauketat 2002). We now know that Cahokia was expanded abruptly in the mid-eleventh century AD to encompass three major civic-ceremonial precincts (Cahokia proper, East St. Louis, and St. Louis) that cover an irregular area of up to 20 square kilometers within a central administrative zone (Figure 1).

By AD 1100, just 50 years into its existence as a city, Cahokia and the related complexes at East St. Louis and St. Louis sprawled irregularly across nearly 20 square km of the Mississippi River floodplain and adjacent Missouri river bluffs, comprising a “capital zone” .... Site plans and excavations attest to key organizational differences between the big-three complexes, hinting that each was a distinct administrative or ritual-residential district. Within that whole, there were at least 191 earthen pyramids: 120 in Cahokia, 45 in East St. Louis, and 26 in St. Louis. There were also several major plazas and a series of apparent

neighborhoods strung out archipelago-like between ancient oxbow lakes and the Mississippi River itself.

Based on counts of excavated houses and estimates of household size and building duration (calibrated by known numbers of rebuilds per 50-year phase), estimates of maximum population sizes for the Cahokia and East St. Louis complexes range from 10,000-16,000 and 2,000-3,000, respectively. St. Louis could have been comparable in size to East St. Louis. Combined, and taking into account several more small towns and a greater Cahokia region populated by farmers, twenty-five to fifty thousand people may have routinely engaged or identified with the city during its early twelfth century peak (Pauketat, et al. 2015).

As argued repeatedly by Susan Alt (2001, 2002, 2006, 2008), the city and its hinterland farmers included sizeable immigrant subpopulations. Recent isotopic evidence from Cahokia proper suggests that as many as 30 percent of the city's population at any given point in its history was made up of people from outside the greater Cahokia region (Slater, et al. 2014). Moreover, archaeological evidence from two kinds of deposits in the very center of the Cahokia precinct gives us some sense of the motivations underlying immigration. First, great religious festivals attended by thousands took place in the precinct's public plaza in the years immediately after AD 1050 (Pauketat, et al. 2002). Second, in those years and later, until circa AD 1200, elaborate mortuary rites saw the periodic interment of prominent people, god-like

impersonators, and sacrificial victims (Alt 2008; Fowler, et al. 1999; Pauketat 2008, 2010; Porubcan 2000). These were theatrical spectacles that marked time and defined identity.

Following arguments by Thomas Emerson (1989, 1997a, b), such ritual performances may have had the effect of integrating the organizations or syncretizing the practices of a diverse population (Pauketat 2000; Pauketat and Emerson 1999). But if so integration was not necessarily that which had been intended, but instead the historical byproduct of the experience of Cahokian religious order: its grand spatiality, its elaborate architectural forms, its ritual medicines, and its crafted objects (Crown, et al. 2012; Emerson, et al. 2008; Emerson and Pauketat 2008). The result was a thick co-association of feminine powers, wooden posts, small anachronistic ancestral temples and bone baskets, crops, serpents and, probably, the moon (Pauketat 2013; Romain 2014).

The moon, in fact, seems to be a prominent component of a third line of evidence related to Cahokian religion that has recently come to light from a Cahokian farming district 15-30 km east-southeast of the city. Based on excavations from this “Richland” farming complex, Pauketat (2013) recognized patterns in the orientations of and depositional patterns at two mounded sites, Pfeffer and Emerald, along with a few smaller sites. Both of the large complexes are situated at the edge of a great flat prairie open to the eastern sky. Both possess suggestive features and alignments of earthen mounds, likely among other buildings and posts. These suggestive characteristics include off-cardinal organizational axes. At the Pfeffer site at least 8 small circular mounds were arranged along a prominent natural ridge alongside a ninth mound, a small four-sided earthen platform. At the Emerald site, 11 circular mounds are arranged in three rows at right angles to a six-meter high rectangular pyramid (Figure 2).

While the Pfeffer site's layout is difficult to reconstruct owing to modern-day site destruction, Emerald's plan is clear. The small mound rows mark a 53-degree azimuth while the large pyramid marks the orthogonal at the same time as it faces another mound in the distance. As it turns out, the angular configuration of the Emerald mounds, and probably those at the Pfeffer site, precisely mark a notable moonrise sometimes referred to as "standstills" (Malville 2008; Sofaer 2008). Standstills, or lunar maxima and minima, are phenomena caused by the 18.6 cycle of the moon as it revolves around the earth. For about one year out of every 18.6 years, the full moon appears to rise and set at maximum northern and southern extremes (beyond the solstice sunrise and set positions). Just over nine years later, the full moon rises and sets at minimum positions inside the solstitial envelope, meaning that there are four notable moonrises and moonsets every 9.3 years for a total of eight significant observational angles, four to the east and four to the west. The Emerald acropolis, the core of the Emerald site, appears to have been pre-aligned to the 53-degree position of the maximum northern moonrise at this latitude, correcting for declination, horizon distance and angle, and atmospheric conditions associated with lunar observations (Pauketat 2013).

That such a mounded complex might be aligned to a once-in-a-generation celestial event is partially explained by the history of ceremonial centers in the American midcontinent. The "Hopewell culture" of Ohio's first through fourth centuries AD in particular witnessed the construction of great earthen enclosures aligned to lunar maxima and minima, along with other celestial and earthly orientations (Hively and Horn 2006, 2010). Previously, William Romain (2009) and others have noted that Hopewell religious associations appear to have been based in animistic practices that emphasized shamanic vision quests, powerful material qualities, and

the spirit journeys into the realm of the dead. However, the Hopewell world came to an end centuries before the Emerald site, and the “Late Woodland” period that followed (ca. AD 400-1050) weakly evinces such associations, and then only at key sites. For instance, lunar records might have been held in the American Midsouth, notably at the Toltec site in central Arkansas, AD 700-1050 (Romain 2014). But few of the other trappings of that which will come to characterize Cahokian religion (feminine powers, serpents, crops, etc.) are known until AD 1050 (see below). That is, Emerald may have been the first of a new series of complexes in the greater Cahokia region and beyond that re-established such moon-related knowledge in the American Midwest.

Indeed, Emerald may have been foundational to the city of Cahokia, a plausible preliminary observation owing to the existence—only noted in passing before our investigations in 2012—of a formal avenue between Emerald and the city of Cahokia, 24 km to the west (Pauketat 2013). That roadway, initially identified in the 1800s as a well-worn Indian “trail” (Snyder 1962), entered the hilltop Emerald complex from the southeast and exited toward Cahokia to the northwest. Given its width, circa 50 meters, it is possible that many people in formal processions frequented the Emerald complex to witness exceptional astronomical phenomena. The religious entanglements that resulted would have been primary among the reasons for Cahokia at AD 1050 (if not also the subsequent widespread “Mississippianization” of eastern North America [Pauketat 2007]). If true, then how this happened—the specifics of human and non-human convergences—go a long way toward delineating the causal power of religion in the emergence of urbanizing civilization.

## **Emerald Archaeological Project**

The specifics of such convergences can be observed in the results of recent research at the Emerald and Pfeffer shrine complexes. Large-scale excavations, geophysical survey, airborne laser scanning, and on-the-ground pedestrian survey to identify additional sites were undertaken in 2012 and 2013 by the Emerald Archaeological Project. For present purposes of inferring if and how the religious entanglements of the upland shrine complexes underwrote the rise of Cahokia, we highlight some of the evidence detailing the timing, periodicity, and scale of the Emerald and Pfeffer occupations as well as the details of pole-and-thatch building construction and closure. These data emphasize how the relationships between the Emerald and Pfeffer shrines and the moon contributed to the rise of the city of Cahokia.

### *Survey Data and Chronological Patterning*

As of May 2013, the Emerald Archaeological Project had surveyed approximately 624 hectares across six variably sized tracts surrounding the Emerald acropolis. Within the surveyed area were 67 new sites dating to the Cahokia-Mississippian period (AD 1050-1350) based on surface materials. Most of these were small sites, farmsteads or short-term habitations, each seldom covering more than 100 square meters. All but one, an outlier of the main Emerald complex, are suspected to be residential sites composed of the remains of from one to a few pole-and-thatch buildings. Most are concentrated within a 2.5-km radius of the acropolis (Figure 3).

Extrapolating to unsurveyed areas around Emerald would produce two to three hundred more house sites in the immediate vicinity of Emerald, a significant concentration given the relatively short history of the complex: artifacts recovered from all 67 sites fall within the narrow range of the middle 1000s to the early 1100s. In addition, four possible additional mounds or shrines were located on distant hills along the lunar axis or its orthogonal at distances of 1.5 to 8.0 km from the central pyramid, verifying the importance of the 12 acropolis-mound alignments and suggesting that the acropolis was just the centerpiece of an entire ordered landscape in the Emerald vicinity.

From all indications, the Emerald acropolis immediately pre-dates Cahokia's urban expansion (see below) but was significantly expanded simultaneous to Cahokia's mid-eleventh century transformation into a monumental city. Hints of construction fill along the southeastern edge of the acropolis observed during salvage archaeological excavations at the site in 2011 (Kolb 2011) were complemented in our excavation blocks by overwhelming evidence of a Lohmann-phase (AD 1050-1100) building boom at the Emerald site. A total of 82 Cahokian single-set-post or wall-trench style pole-and-thatch buildings or building reconstructions were identified in the 3931 square-meter area excavated during 2012 and 2013 (Table 1).

Based on pottery remains, few of the buildings post-date AD 1100 and none of them post-date AD 1150, with the exception of a series of likely thirteenth-century pole-and-thatch temples atop the primary platform mound, as revealed in a project trench in 2012 (Skousen 2013). In short, in addition to the Pfeffer site, the Emerald complex appears to have been of

primary importance immediately before and during Cahokia's rapid ascent as North America's only pre-Columbian city.

**Table 1. Inventory of buildings in Emerald Archaeological Project excavations**

<b>Building form</b>	<b>N of wall-trench constructions*</b>	<b>N of single-post constructions*</b>
Temple	1	6
Council house	6	0
Rotunda/sweatlodge	8	0
T-shaped medicine lodge	2	0
Rectangular domicile/temple	2	0
Other rectangular buildings	54	3
<b>total</b>	<b>73</b>	<b>9</b>

\*note: numbers include significant reconstructions or subsequent superimposed buildings

### *Construction Pulses*

At Pfeffer, a new stratigraphic trench appears to confirm the previously recognized pattern of an intermittently occupied or periodically rebuilt ritual-residential complex (see Pauketat 2013). A one-by-four meter trench revealed a construction history involving at least three construction events, similar to the periodicity of pole-and-thatch architectural constructions known from excavations in 2000 and again in 2007 (Kruchten 2000; Otten, et al. 2007). The ashy silt construction fills and light and dark plaster atop one of the mound stages match those seen in the floors of special temples and pits in the earlier excavations, hinting at site-wide ritual events.

Similar mound-construction pulses were apparent in two Emerald platforms tested (Figure 4), and evident in the five excavation blocks opened in off-mound locations at the Emerald site, three in 2012 and two in 2013. The blocks, in addition, produced surprising evidence of dense stands of public and ceremonial architecture, including the full complement of Cahokian T-shaped medicine lodges, circular rotundas, square council houses, rectangular ancestral temples, and other rectangular pilgrim or visitor housing. A large assemblage of pottery remains from one such building, temple F157, date the earliest construction at the site by association to AD 1000-1050, or the pre-Cahokian “Edelhardt” phase (Alt 2013).

Pottery evidence from all of the rest, excluding buildings atop the large central pyramid, reveal the remainder to fall within the early construction (Lohmann) phase and climax (early Stirling phase) of the city of Cahokia, AD 1050-1150. This includes one building located beneath Mound 2 in 2013 and it includes at least six other temples. Notably, all temples are usually distinguished not only by anachronistic single-set-post walls (6 of 7 Emerald examples) and deep semi-subterrean floors (Emerson, et al. 2008) but by two characteristics first observed in the remains of two temples excavated at the Pfeffer site: yellow plastered floors with formal hearths. In addition, at Pfeffer and at Emerald, the temples witnessed complex closure ceremonies involving deposits of earth or ash, the incineration of substances on the old floors, the burial of the floors by waterborne silts, and human re-excavations into the old temple locations that restart the entire sequence of depositional events all over again.

All nine small temples at Emerald and Pfeffer also had their long or short axes rigidly aligned to within a degree of a maximum or minimum northern or southern moonrise (Figure 5). The temples were not the only buildings so aligned, but other constructions might have

been aligned to unknown referents or were not aligned with precision. This seems to have been the case for a palimpsest of rebuilt wall-trench houses near the F157 temple. All 25 of these rectangular buildings lacked any indication of deeply dug floors, interior roof support posts, and hearths. Moreover, none of them produced significant accumulations of domestic refuse. Even incidental potsherd or chert-flake refuse inclusions in their wall trenches were rare, unlike the situation with typical domestic houses in the greater Cahokia region (e.g., Holley 1989; Milner, et al. 1984; Pauketat 1998). Thus, it appears that little actual living took place in and around them. Given the high rate at which they were reconstructed, we interpret them as temporary shelters for intermittent ceremonial events.

Perhaps such ceremonial pulses at the site were also the occasions for a number of notable decommissioning events, especially evident in and around the temples. For instance, one single-set-post building adjacent to F157 was burned, possibly coincidental to the incineration of ritual materials in F157's decommissioned open basin. Similar burnings are known from all other temples at Pfeffer and Emerald. These seem to be complemented by buildings closed with the aid of water, best exemplified not by a temple but by one of the three large square council houses excavated in 2012. Known as F110, this council house was also unusual for its oversized central roof support post, F120 (Figure 6). Rebuilt two times after its initial construction (with a lifespan of perhaps 30 years), the council house was probably dismantled in the early 1100s, as indicated by chronologically sensitive pottery remains found in association. Importantly, water laid silt appears to have marked the dismantling of this particular building, as did a human interment into the now-open central roof support post pit. There, after the two-meter-deep, half-meter wide wooden post was pulled out of the ground,

the gracile flexed remains of a human body—likely a young female—was placed in the hole.

Then, those who laid her in the hole allowed her body to be covered completely with water laid silt, possibly during a major rain event, prior to the hole being filled with earth.

Importantly, this council house was oriented to a maximum southern moonrise event. Moreover, its oversized post pit and its human offering were located along the centerline of one of the hypothesized 53-degree maximum north moonrise axes that run through the entire complex. Hence, the human interment may have been connected not only to the decommissioning and dismantling of a council house and to water from the sky but also to the moon.

## **Discussion**

The multiple lines of evidence from the Emerald Archaeological Project appear to converge in single moments, buildings, or pulses at the Pfeffer site and Emerald acropolis. At a small scale, for instance, a special building aligned to a once-in-a-generation lunar event possesses a special yellow-plaster floor featuring a hearth and, when decommissioned, becomes the scene for a fire-and-water-assisted closure ceremony. At a larger scale, the acropolis itself, naturally pre-aligned to a maximum north moonrise, appears to have been expanded and then surrounded by pole-and-thatch ceremonial structures and short-term habitations. Presumably, the expansion signals that the acropolis embodied the fundamental relationships between earth, sky, life, and the moon. The roadway seems to testify to the

power of that landform, so amplified, to attract the attentions of many people moving to and from Cahokia during the phase when Cahokia's population was experiencing rapid growth.

Certainly the discrete deposits or building associations at Emerald appear to parallel that previously noted by Emerson and others as the gist of Cahokian religion: feminine powers, wooden posts, small anachronistic ancestral temples, crops, serpents and, now, the moon (Emerson 1997b; Emerson, et al. 2008; Pauketat 2013; Romain 2014). It is worth highlighting the point that such bundles of powers, associations and practices do not appear to have existed as sets prior to the rise of Cahokia in the mid-eleventh century (Emerson, et al. 2000). It is also worth emphasizing that the power of such entangled sets was in their performance. Elsewhere, researchers have noted that substances—yellow earth, fire, water, bones, and smoke among them—possessed potentially animate properties (Baires, et al. 2013; Baltus and Baires 2012; Pauketat 2008). In fact, many Native Americans living in the eastern Woodlands and Great Plains in later centuries, including likely descendants of Cahokians, recognized such substances (especially as bundled together) to be “witnesses,” able to see that which people were doing and to communicate it to higher powers (Pauketat 2013). They were, in essence, portals to other worlds. Where they converged with human movements, such as at the Emerald acropolis, they connected people to the most holy of holies. Such connections would, then, define the sensibilities, identities, and political proclivities of people.

Indeed, we conclude that the fundamental religious associations that generated an indigenous city at Cahokia were physically produced and sensually experienced at the Emerald and Pfeffer sites along with the other nearby shrine complexes. First and foremost, Emerald and Pfeffer appear to have been elaborate, overbuilt and under-populated emplacements of

religious temples, council houses, medicine lodges, and visitor housing. Few to no domestic habitation structures have yet been found. At least one temple at the Emerald complex predates the city of Cahokia, though Cahokians very clearly enlarged the Emerald complex and built the Pfeffer shrine at ca. 1050-1100, or the same period over which they rebuilt Cahokia into a cosmic city. Both Emerald and Pfeffer were periodically enlarged and occupied by sizeable groups of people who may have processed into and out of the mounded, post-studded, and aligned spaces of the hilltop shrines, possibly on their way to and from Cahokia.

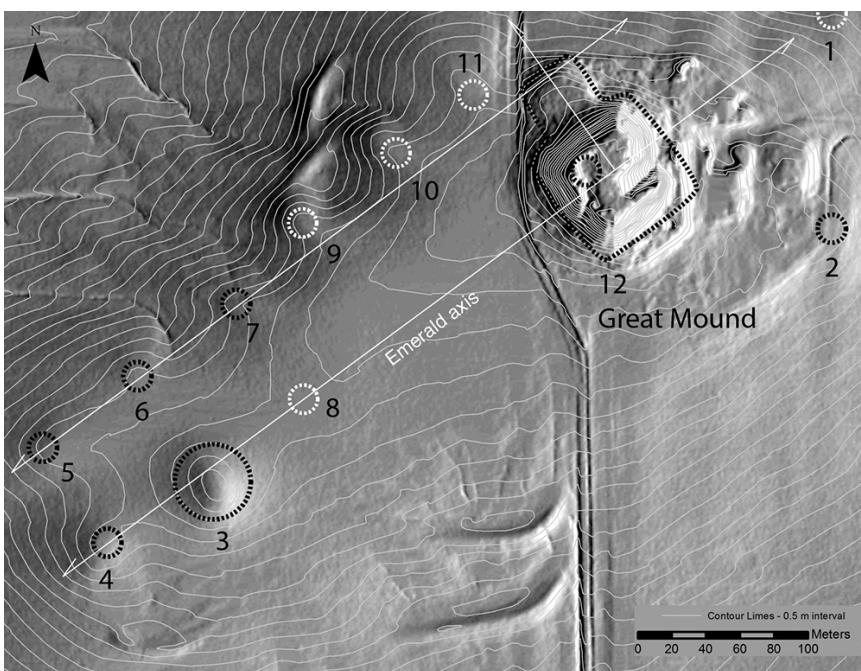
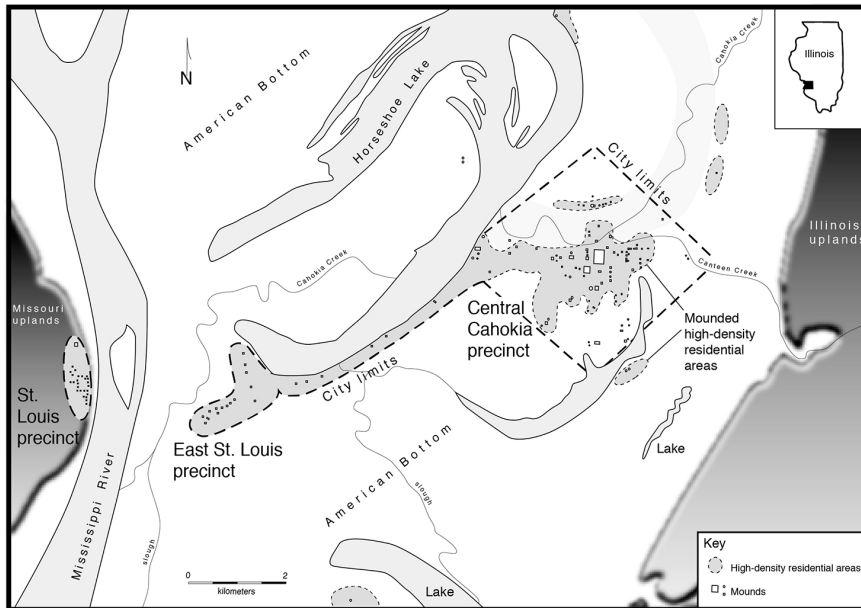
Readily evident, nested, and redundant lunar alignments provide substantial evidence that Emerald was a place where people aligned themselves to the moving cosmos, especially the moon and all of its associations. The human remains, posts, colored construction fills and plasters, and water-laid deposits seemingly positioned people between the forces of life, death, earth, and sky in palpable, sensuous ways. Human beings, celestial beings, animate forces, substances, and other experiential phenomena (light and shadow) are all implicated, making Cahokian religious experience a thick sensuous convergence—possibly by definition but certainly as a demonstrable phenomenon at Emerald. Future understandings of similar developments of ancient cities, in addition to the “Mississippian” towns and polities that followed Cahokia across the eastern United States, hinge on our recognition of the innovative potential of religion conceived not as pre-existing systems of belief but as the very terrain of social relationships.

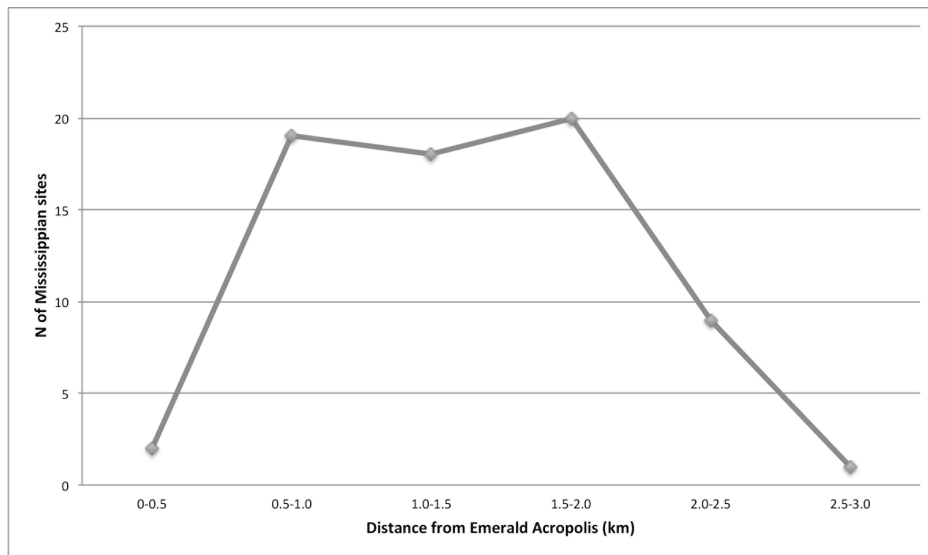
In other words, the “urban revolution,” as it was once dubbed (Childe 1950), was very likely closely tethered to the ways of being of people who did not distinguish their beliefs from their practices. Because of this, the powers resident in certain people, beings, places, things,

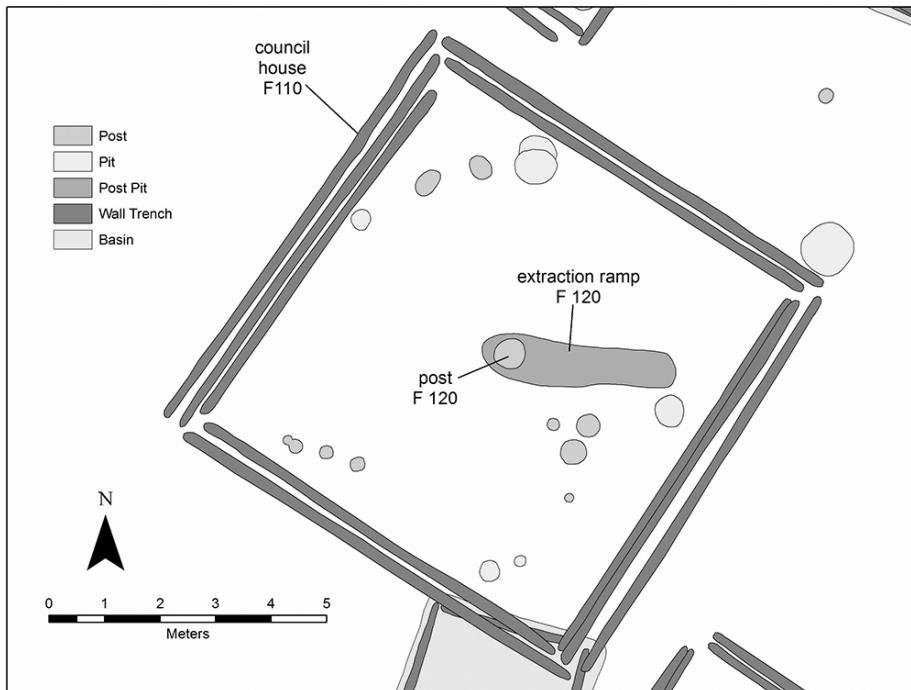
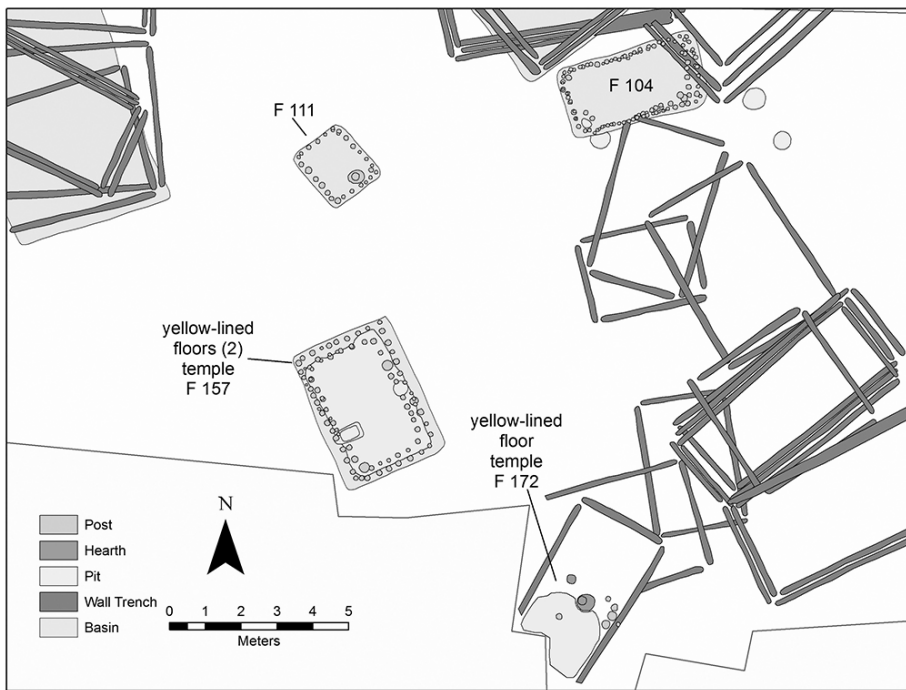
substances and phenomena—even the moon in a night sky—might be understood as causal in the larger history of societies. That this was the case with the appearance of cities everywhere was originally inferred by Fustel de Coulanges and appears supported in the archaeology of the Emerald acropolis. There, the answers to the questions of why a city emerged are to be found in the elemental combinations of earth, sky, body and soul. Had the Emerald hilltop not been pre-aligned to a lunar standstill or had ancestral temples not been built before 1050 to provide powerful convergences of the living and the dead, perhaps there would have been no Cahokia.

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