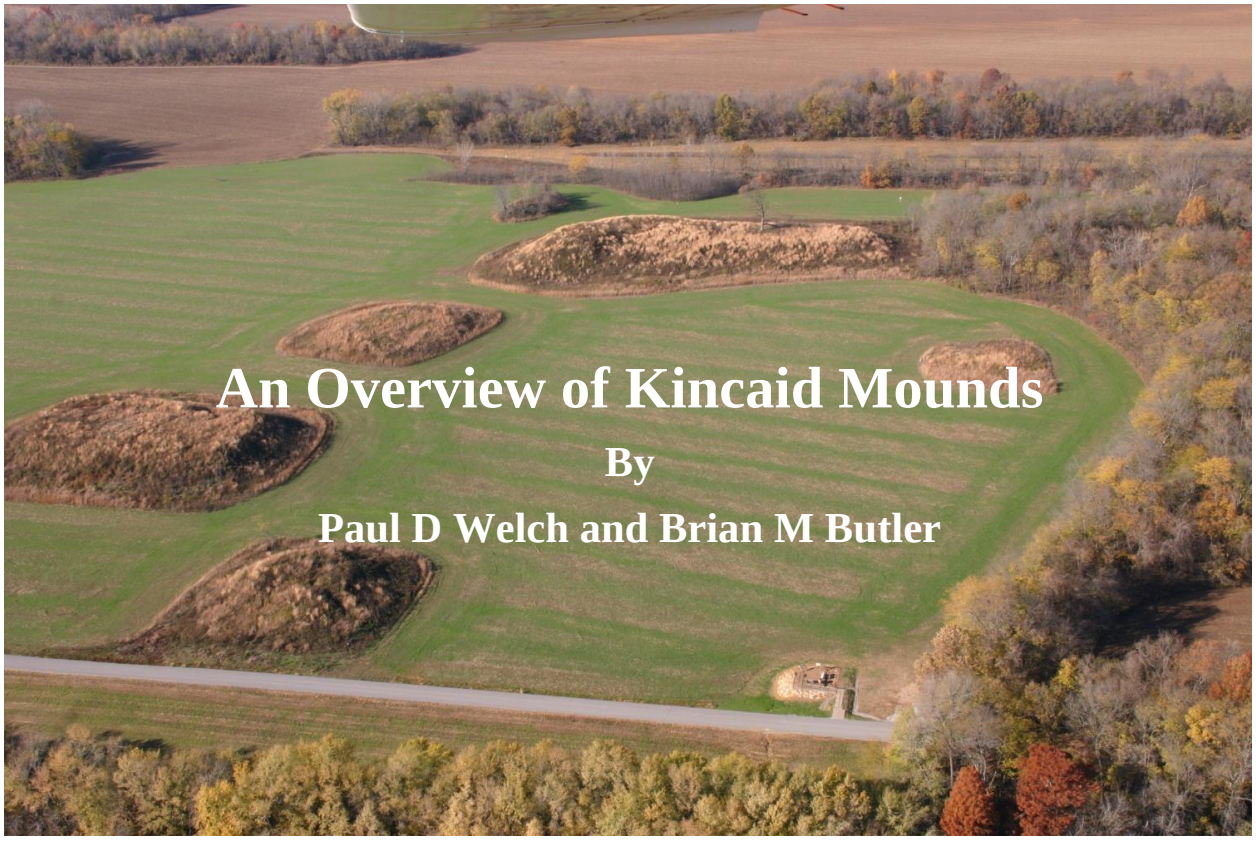

An Overview of Kincaid Mounds

By

Paul D Welch and Brian M Butler

On the floodplain of the Ohio River in southernmost Illinois, Native Americans built a large town now known as the Kincaid site. Occupied from the late 1000s through the early 1400s, the site is visible today as a set of large earthen mounds. Investigations in recent decades revealed numerous smaller mounds, which as a result of plowing, erosion, and alluviation are visible only as gentle rises. For a portion of its existence, the town was surrounded by a wooden bastioned palisade whose extent varied as the number of residents expanded and contracted. We do not know what these people called themselves; archaeologists use the term Mississippian for this and contemporary societies throughout the southeastern U.S. At its largest, the town was shaped like an elongated D, 1 mile long x .3 miles wide (1.7 by .5 km; see Figure 1). The maximum population at the site was likely around 2,000, with an additional thousand residing at farmsteads dispersed on the higher portions of the floodplain.

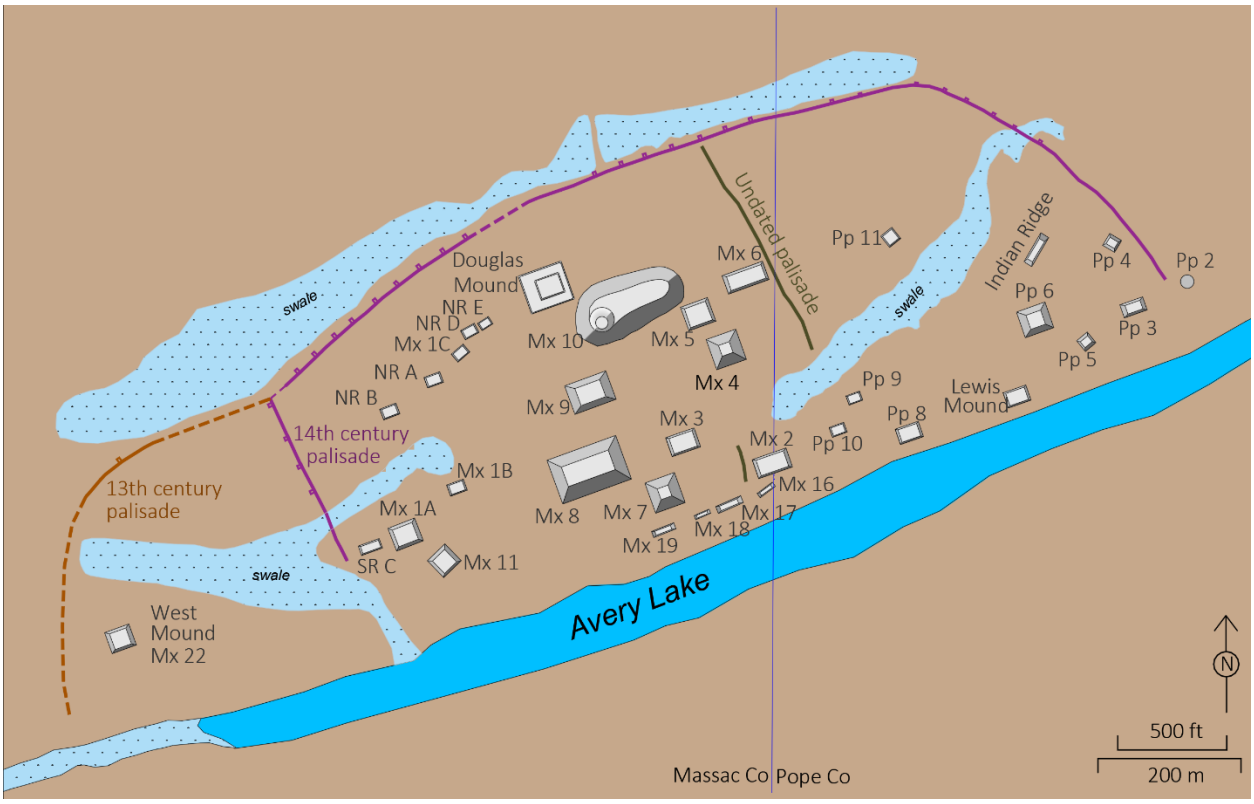

Figure 1. Schematic map of the Kincaid site.

Kincaid itself occupies some of the highest land in the floodplain, with roughly 60% lying in Massac County (on the west) and the rest in Pope County (on the east). Most of the mounds and excavations have been designated by numbers prefixed with Mx or Pp, indicating which county they are in. Since 1975, the state of Illinois has owned nearly all the Massac County portion of the site; the Pope County part is privately owned. Archaeological fieldwork has mostly taken place in Massac County, leaving our understanding of the eastern side of the town rudimentary.

Setting

Physical environment of Black Bottom

Kincaid is located in the southernmost, outer band of Black Bottom of the Ohio River which consists of the washboard, ridge and swale topography that characterizes the active floodplain of a large river. Housing was built mostly on the ridges, no doubt because the swales flood on a

regular basis. This floodplain also contains a series of long narrow lakes that are remnants of abandoned chutes or back channels of the Ohio River. The site is situated on the north bank of Avery Lake, one of those channel remnants, which has been cored and is known to be about 3,100 years old (Bird et al. 2019).

Biotic environment and subsistence remains

Topographically, the Black Bottom in the vicinity of Kincaid consists of a series of low relief ridges and swales that parallel the contours of Avery Lake and several other shallow lakes to the west. This zone comprises the outer band of floodplain deposits just interior of the active riverbank deposition but south of the poorly drained Hardwood Bottom where the topography is more even. This environmental zone has been designated the "Cane Bottom" (see Figure 2)

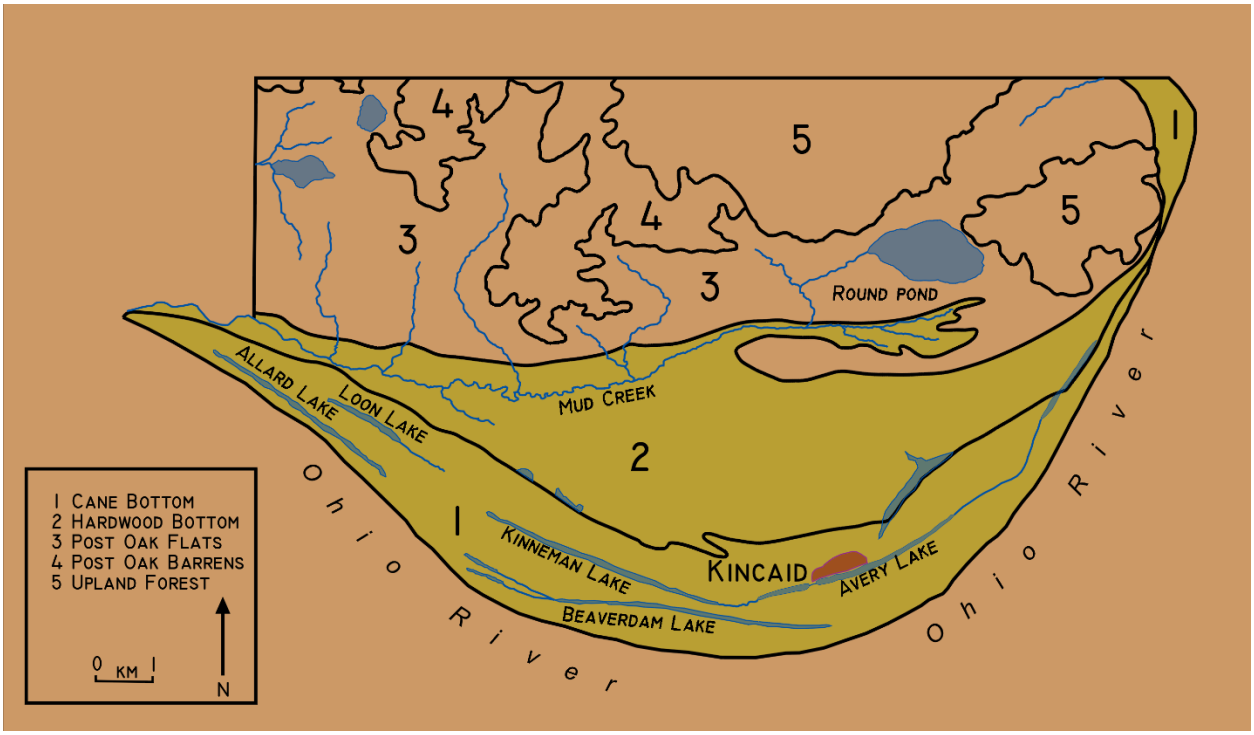

Figure 2. Vegetation zones in the Black Bottom.

because early !9th century land records show that these ridges were often covered by dense stands of river cane, which were easily burned to open areas for farming after the trees had been killed.

The soils are silty clay loam, a type that is highly fertile and excellent for agriculture. Extensive archaeological surveys within and adjacent to the Black Bottom (see below) have shown that nearly all the Kincaid-era habitation is contained within this zone or along the edges of the terrace that borders the Black Bottom to the north (Butler1977).

The Black Bottom was frequently flooded by the Ohio River both then and now. Most of the mounds and habitation areas are located on the higher ground, and a flood of moderate height is required to inundate major portions of the site and to isolate the mounds. A major flood, such as the one in 2011 (crest on Paducah gage of 55.03 ft), will completely flood all habitation areas and most of the smaller mounds, as well as all of the bottomland. The highest flood on record at Paducah took place in 1937 reaching a crest of 60.8 ft with water remaining above the 50 ft level for almost a month.

Despite the potential for natural disaster and dislocation, Kincaid's location offered an ideal living space, with fertile, easily worked soil as well as the rich resources of marsh, cane bottoms, hardwood forest and lake habitats. Above all, the Kincaid inhabitants were farmers, cultivating maize, beans, and squash/gourds. The archaeological samples of maize consist of small-eared varieties having between ten and sixteen rows of kernels. Starchy-seeded cultivated plants—maygrass (*Phalaris caroliniana*), goosefoot (*Chenopodium berlandieri*) and little barley (*Hordeum pusillum*)—were produced albeit in small amounts, as well as the oily-seeded domesticates sumpweed (*Iva annua*) and sunflower (*Helianthus annuus*; Parker 2007).

History of investigations

University of Chicago

Our understanding of Kincaid comes from field explorations from multiple eras of research, beginning in the 1930s. In 1934 University of Chicago (UC) archaeologists began what was to be a nearly ten-year research program at Kincaid. The culminating publication of that work, Fay-Cooper Cole's 1951 volume, *Kincaid, A Prehistoric Illinois Metropolis* (Cole et al. 1951), formally documented the site as one of the great mound centers of the Mississippian culture and framed our basic understanding of the site. Following Cole's 1947 retirement and the 1951 publication, the site dropped from the forefront of research on Mississippian sites.

Weigand and Muller

The site re-emerged as an object of active research in 1967-68, when Jon Muller and Phil Weigand of Southern Illinois University Carbondale (SIUC) conducted brief salvage excavations on a portion of the Avery Lake frontage damaged by earthmoving (Muller 1986:20; Weigand and Muller 1974). This work led to Muller's long-term interest in Kincaid, as well as to an intensive research program directed at the Mississippian culture in the Black Bottom and the lower Ohio River Valley.

Black Bottom survey

Muller did not do more excavation at Kincaid proper. Rather, he saw a major weakness in the prevailing research on Mississippian societies that focused only on the large mound sites, and embarked on a program of detailed systematic survey and small-scale excavations to document the supporting settlements around Kincaid. Ultimately this work resulted in the near-total survey of the Black Bottom and the adjacent terrace margins (Muller 1978, 1993). This was innovative research that showed the value of documenting the distribution of settlements around the major mound centers, and it was soon to be emulated elsewhere. Thus, the 1970s and early 1980s were a period of intense archaeological activity in the Black Bottom and around Kincaid, but not *at* Kincaid.

SIU Welch and Butler excavations

The new period of work at Kincaid began in 2003 as a collaborative effort by Paul Welch and Brian Butler of SIUC. With knowledge of the surrounding area and more recent work on Mississippian settlements in the southern Illinois hinterlands (Butler and Cobb 2012; Cobb 2000; Cobb and Butler 2002) in hand, it was time to return to Kincaid. The initial goals were to assess the organization and complexity of the site and chronicle its emergence and decline as a major mound center, none of which were adequately documented by the previous work. A workable site chronology was clearly also needed.

The new work began in 2003 with a small testing project for an interpretive platform and visitor parking area in the southeast corner of the site's central plaza (Butler and Welch 2006). That small effort ultimately gave rise to a new research program which has included an

examination of old collections and records, a geophysical survey, and annual excavations carried out by the SIUC archaeological field school.

The annual excavations, guided by the geophysical results, began in 2005 and continued through 2016. In 2006 an additional excavation cleared the footprint of the new interpretive platform, located just west of the 2003 test area. The new research was intended to clarify the composition and developmental history of the site. Specific goals included determining site boundaries (particularly on the west), the location and extent of habitation areas, the exact location of the known bastioned palisade, and the possible presence of undocumented palisades and previously unrecognized low mounds.

Magnetometry and population estimates

The geophysical survey, conducted by Berle Clay, Michael Hargrave, Staffan Peterson, and John E and John A. Schwegman, began in 2003 and was completed in 2009. Although other methods were tested, magnetometry was found to be the most informative. The magnetometry survey is an integral part of the research program, and a summary of that work and some of the insights it yielded have been published (Butler et al. 2011). Magnetometry can reveal that something in the ground at a particular location differs from the ground around it. The instrument does not reveal what that is, though sometimes the size and shape of the anomaly permits an educated guess (such as a rectangular house or a refuse-filled pit). The survey revealed that the site was more extensive than had been understood, and that occupation extended lower down the ridge slopes than had been known from surface collections. This led to a significant upward revision of the estimate of the community's maximum population, to around 2,000.

Coring

One result of the SIUC excavations was the recognition that some, but not all, of the low, rounded topographic rises were artificial mounds. To assess which of these features were artificial or natural, in 2018 Butler and Welch began a program of small diameter coring. By small diameter coring, we mean the commonly used 1-inch (2.5 cm) diameter Oakfield soil sampler, either pushed or pounded into the ground. The objectives of the work were to (1) establish whether these features were built prehistoric mounds or just natural rises with habitation on their crests, (2) if they were mounds, to determine their internal stratigraphy, (3) to

verify the presence of associated structures, and (4), if possible, to obtain samples for radiocarbon dating. There were five field seasons, beginning in April 2018 and ending on the last day of December in 2023. The coring revealed that there are 35 artificial mounds at Kincaid, nearly doubling the previously recognized number. Due to the difficulty in distinguishing stratigraphy in such small windows of visibility, we had limited success in assessing how many construction episodes had contributed to each mound, and whether there were mound-top buildings. Only a few of the mounds provided samples suitable for radiocarbon dating.

Figure 3. Butler and Welch coring.

Radiocarbon and tree ring dating

Part of the UC project in the 1930s was an attempt to establish a dendrochronology (tree-ring dating) record for Kincaid (Bell 1951). Although a result was reported in the 1951 volume, it later became evident that the result was several centuries too recent. Fortunately, the archaeological samples were archived at the University of Arizona Tree-Ring Research Laboratory. Nicolas Kessler (Kessler et al. 2022), established a floating tree-ring record, and by combining dendrochronology with radiocarbon dating, obtained high-precision date estimates for some of the buildings atop mounds (Kessler et al. 2023). Full results have not yet been published, however, so we can make only limited use of these estimates.

Chronology

Though our focus is on the Mississippian town, there are at least three previous periods of occupation at this location. The earliest is a late Middle Archaic (ca. 5700 to 4800 years ago) refuse deposit on the slopes of a buried sand ridge (Butler and Crow 2013). Subsequently, repeated Early-Middle Woodland (Baumer phase, 2250 to 1750 BP) occupations left dense refuse and many pits near the margin of Avery Lake (Butler and Herndon 2016). There was also a Late Woodland (Lewis phase, probably between 1100 and 900 years ago) occupation somewhere at the site. Lewis phase pottery is present in some of the mound fills, but in-place Lewis materials have been exceedingly sparse. Within the Massac County portion of the site, it appears that the early Mississippian habitation areas are limited in size and mostly located beneath or around the major mounds where they may be deeply buried by subsequent mound construction and slope wash. The Lewis phase occupation may be more extensive in the Pope County part of the site, but the sparsity of excavations there leaves this a conjecture. Presumably the Mississippian residents descend from the Lewis phase people, but whether occupation is continuous or whether there is a chronological gap between these periods is not known.

Our understanding of the chronology of occupation at Kincaid is based primarily on the pottery found ubiquitously in excavations (Pursell and Brennan 2007). We recognize three phases of pottery styles: Early Kincaid (AD 1050-1150), Middle Kincaid (AD 1150-1350), and Late Kincaid (AD 1350-1450). These are little changed from the periods reported by Kenneth Orr in the 1951 volume (Orr 1951), though we are now able to attach absolute dates to them.

This sequence is closely related to the Jonathan Creek (AD 1000 – 1150), Angelly (AD 1150 – 1300), Tinsley Hill (AD 1300 – 1450) sequence for the lower Tennessee and lower Ohio River valleys (Butler 1991). As our set of dates has expanded, it is evident that significant changes in the size and layout of the town, and spurts of mound-building, do not align with the changes in pottery styles that are the basis for these phases.

Site layout and its change over time

Neighborhoods

Not all the variation within the pottery and other materials is chronological in origin. Brennan (2014) and Pursell (2016; see Figure 4) showed that there were distinct sub-communities, or neighborhoods, within the site, occupying different ridges or portions of ridges (West Mound , Massac County South Ridge, North Ridge, Core, and Pope County South Ridge). The material signatures of these neighborhoods are different house styles, methods of pottery manufacture, different ratios of serving vs. cooking and storage vessels, and different abundances of chert by source. For example, while all residences were quadrangular, wall-trench structures, there are differences in size, length-width ratios, presence/absence of interior support posts, wall trenches with open vs. closed corners, and presence or nature of interior features. Residents of some neighborhoods used larger vessels, and more serving vessels, than in other neighborhoods. Separately, Buchanan (2007) showed that there are also differences in the faunal remains. Although some of the observed differences may be attributed to change over time, there are differences between sub-communities that are fully contemporary. Variation between neighborhoods is more pronounced in Middle Kincaid than in Late Kincaid. Brennan noted that the differences between sub-communities might be due to differences in status, ethnic origin, function, or other factors, but was not able to draw firm conclusions about what the variation meant in social terms.

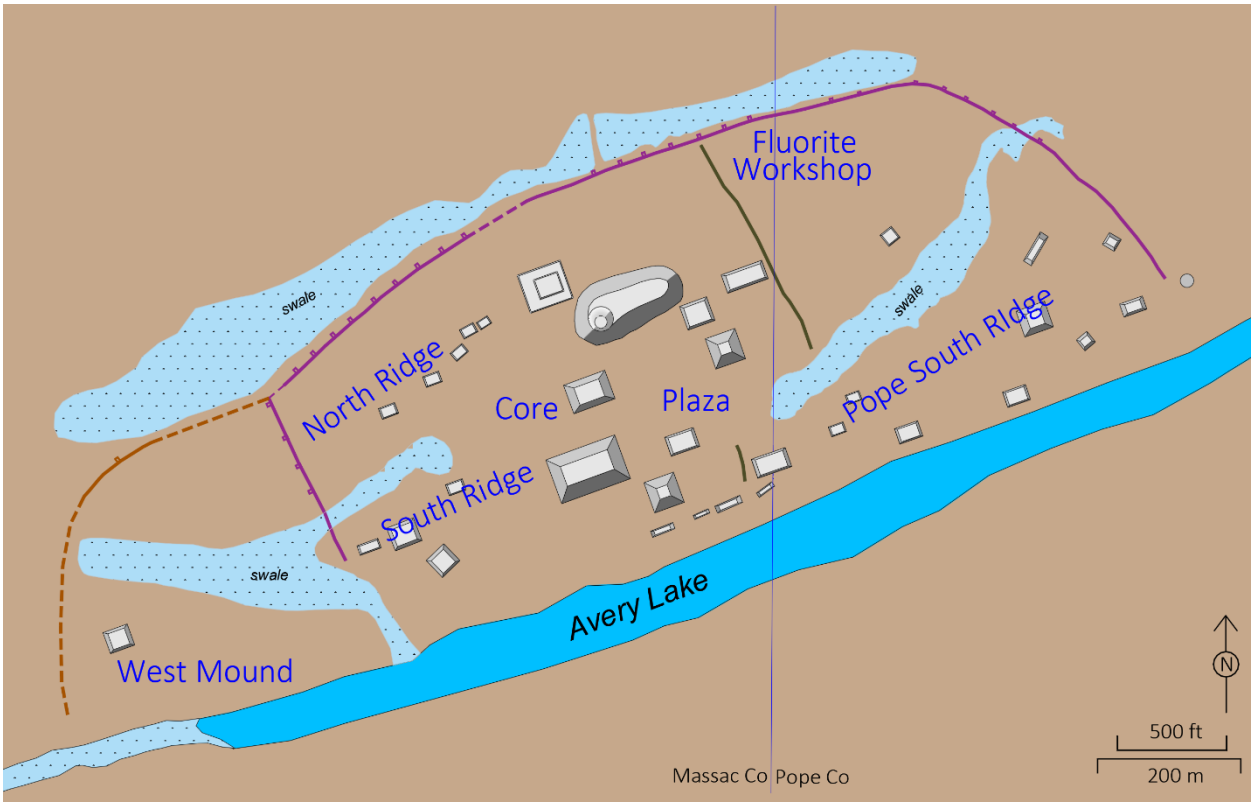

Figure 4. Sub-communities within Kincaid (adapted from Brennan 2014:Figure 5.1).

Subsequent to the analyses by Brennan (2014) and Pursell (2016), excavation in the "Fluorite workshop" part of the site documented a locus of craft manufacture that is dramatically different from elsewhere at the site. Near the central northern edge of the site, just within the palisade line, an area roughly 165 x 500 ft (50 x 150 m) has abundant evidence for the crafting of fluorite beads. In addition to hundreds of fragments of fluorite, there are unfinished fluorite beads in several shapes, mostly broken during manufacture. There are flint microdrills, similar to those used at Cahokia, sandstone saw blades and files (similar to saws but with U-shaped instead of V-shaped cutting edges), and reamers (blunt-tipped biconical tools with flat centers, made of sandstone, with clear evidence of rotational use in a comparatively soft material such as wood or bone). There is no evidence that the saws, files, or reamers were used in bead manufacture, so fluorite was not the only material worked in this area. Excavations in 2015 and 2016 exposed two adjacent square, wall-trench buildings with large interior roof-support posts, and along the rim of the structure basin a row of 1 inch (2-3 cm) diameter sticks inserted vertically in the ground 7 inches (17-18 cm) apart. Both had been re-built multiple times (see Figure 5).

Buildings with this suite of characteristics have not been seen elsewhere at the site. Both had abundant evidence of fluorite crafting, but one of the buildings also had stone tools and pottery similar to residences elsewhere, while the other had only crafting debris and lacked the characteristics of residences. This portion of the site is clearly functionally different from the sub-communities elsewhere. While the evidence seems to rule out some possible interpretations of the organization of craft production in the Fluorite Workshop, we are a long way from being able to say precisely what that organization was.

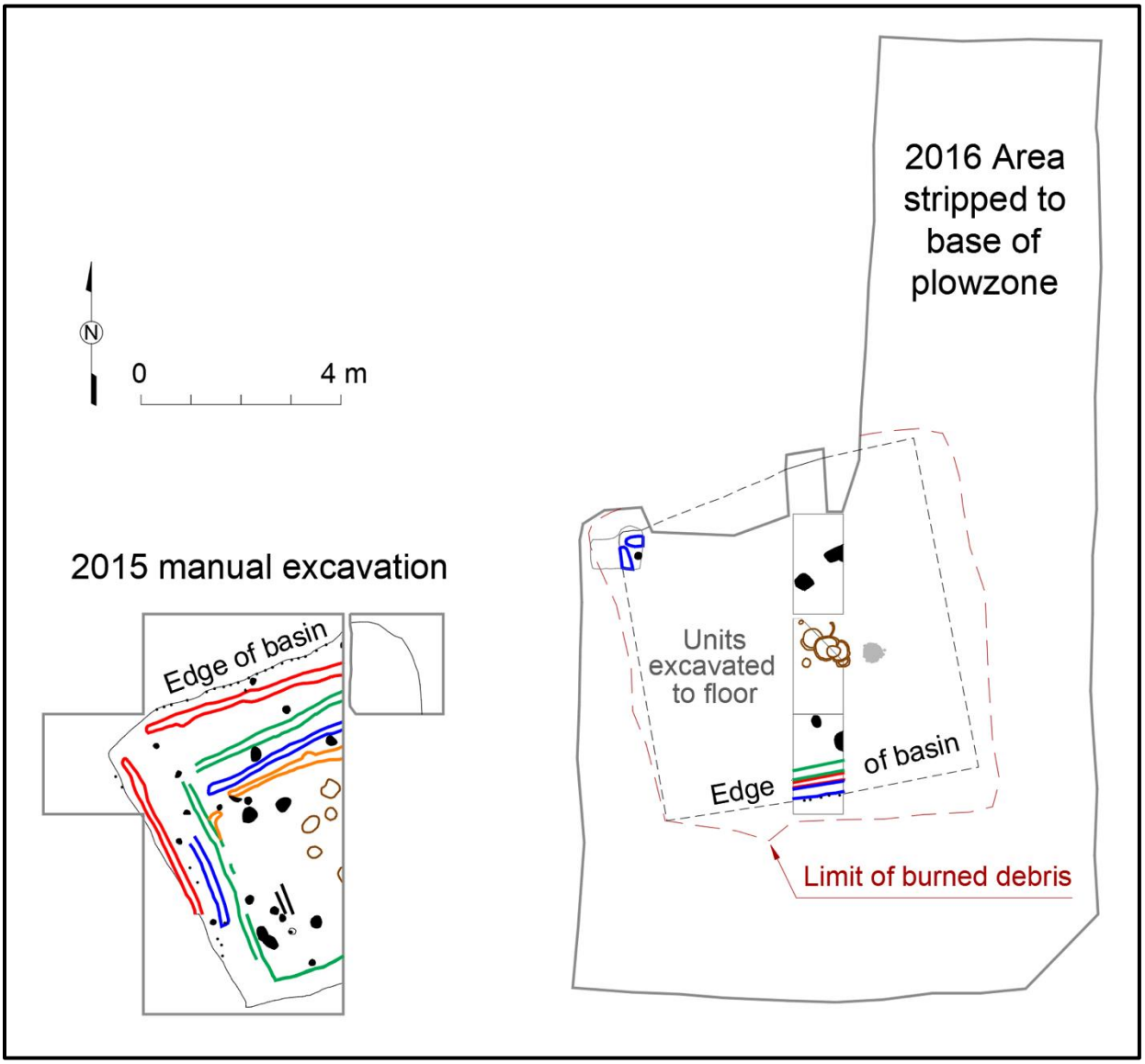

Figure 5. Adjacent buildings in the Fluorite Workshop.

Another area that is distinct from the rest of the site is the extensive central plaza, which may have been artificially leveled. It is magnetically quiet, with the exception of a large, strong rectangular anomaly. Excavation revealed a large, 33 x 36 ft (10 x 11 m) nearly square building with a 3 x 3 grid of large, deeply set, interior roof support posts. These posts were large, at least 1.3 ft (40 cm) diameter, and set into the ground at least 6 ft (1.9 m); even with coring we were not able to get to the bottom of any of the post holes. There were at least two cycles of insertion and extraction of these interior posts. The final building burned, and fired daub was left strewn on the floor and down into the (empty) holes for the roof support posts.

Although there was abundant fired daub on the floor, it is not clear where the daub came from. Ordinarily, daub comes from the walls of buildings, but this building had neither wall trenches nor holes for individual wall posts. The outline of the building is based on the edges of the fired clay debris and the floor surface (where it was preserved; growth of tree roots and the burrowing of rodents had blurred much of the floor surface).

Mounds

There are 35 earthen mounds at Kincaid, some large and tall, others much smaller and never very high. The two largest (Mx8 and Mx10) are over 26 ft (8 m) high, while others were no more than 3 to 5 ft (1 to 1.5 m) high. Excavation and coring show that structures were built on the summits of all of the mounds except Pp2, which was a cemetery. There were multiple kinds of mound-top buildings, and hence there were multiple kinds of mounds. The 27 ft (8.2 m) high Mx8 mound, for example, had a circular building 75 ft (23 m) in diameter with a large central post. This building burned and was rebuilt repeatedly, with fragments of (mostly yellow) fluorite scattered in the fills of the wall trench and central post pit. The largest and tallest mound at the site, Mx10, was a long platform, to which a taller, conical mound had been attached (Cole et al. 1951:92-103). The platform portion of the mound had a large rectangular building with a clay bench along one wall. On the summit of the conical part of the mound, a smaller rectangular building built inside an earthen embankment had an unusually high frequency of sherds from the large pans and trays conventionally known as salt pans (Cole et al. 1951:100), though such

vessels do not necessarily indicate salt production. Most of the mounds, and the buildings atop them, align with the bank of Avery Lake, about 18-20° north of cardinal east. However, magnetometry indicates that some of the low mounds had buildings aligned to true cardinal directions. Pursell (2016) showed that, as places for public events or ceremonies, the various mounds were constructed for different audiences and different functions. Not all mounds were built for the same reasons or served the same functions.

The functional nature of the small mounds is particularly unclear but intriguing. The smaller mounds, whether east or west, represent relatively brief periods of use as places of ritual or social and/or political importance. Their construction involved modest amounts of labor, well within the capability of a sodality or an extended kin group such as a clan. These could be the residences of kin group leaders or small shrines or temples such as the "medicine lodges" described for the American Bottom region (Pauketat et al. 2012). What is clear is that after a brief span of time, these smaller mounds fell out of use but the elevated terrain surrounding them was then used for habitation, often very intensive habitation, and that the residential refuse blankets confused the Chicago investigators in multiple instances.

Expansion, contraction, and abandonment

The emergence of Mississippian culture and the early part of the Mississippian sequence at Kincaid remain poorly documented. SIUC excavations have encountered surprisingly little occupation that can be clearly attributed to the early part of the sequence, although some early ceramics do occasionally appear in younger refuse deposits. Lewis occupations are widely distributed throughout the Black Bottom but generally are small, light scatters of refuse, except along the south bank of Avery Lake opposite the eastern portions of Kincaid, where there is a clustering of larger Lewis components (AD 600 – 950 or 1000; Butler 1977; Rudolph 1981). The Chicago excavations documented a Late Woodland structure and Late Woodland refuse deposits in Pope County. Within the Massac County portion, it appears that the early Mississippian habitation areas are limited in size and mostly located beneath or around the major mounds where they may be deeply buried by subsequent mound construction and slope wash. It is not known whether there was a palisade around the site during Early Kincaid (AD 1050 – 1150 or 1200).

Middle Kincaid (AD 1200 – 1350) occupation is far better documented, and far more extensive. The community reached its maximum size during this period. Middle Kincaid residences and refuse deposits are present throughout the site. The large mounds, and many of the small, low mounds were built or added onto in Middle Kincaid. There was a major westward expansion of the town, out to the West Mound and the residences near it. The palisade was constructed, or extended, to include this western zone, in the early 1200s. The Black Bottom survey also documented a major population increase during this time. The scale and rapidity of this population increase suggests that at least part of the increase may be due to immigration, but there is no evidence indicating where the immigrants may have come from. Although the increase coincided with depopulation of Cahokia and the American Bottom, no Cahokia-style houses have been found, and Cahokia-style pottery is rare at Kincaid or anywhere in the Black Bottom (Brennan and Pursell 2020). If there was immigration during this period, the immigrants blended in so rapidly as to be indistinguishable from the rest of the population.

The community contracted during Late Kincaid times. The West Mound neighborhood was abandoned, and the palisade line was relocated a quarter mile (380 m) to the east. Perhaps due to the compaction of the town, variation between sub-communities decreased (Brennan 2014). Mound construction continued during Late Kincaid, with some low mounds being built and several of the large mounds having Late Kincaid additions. The latest-dated deposit at the site comes from thatch from a post-mound structure on Mx2, which, due to a reversal in the calibration curve, calibrates to either the mid-1300s or from 1385 - 1425.

Kincaid appears to have been largely abandoned by AD 1450 as part of larger scale processes resulting in the so-called “Vacant Quarter,” the departure of Mississippian populations from the central Mississippi Valley, southeast Missouri, the lower Ohio Valley, and the lower portions of the Tennessee and Cumberland drainages. Multiple hypotheses such as severe drought and very large floods have been suggested as the principal factor underlying the destabilization and eventual collapse of these societies (Meeks and Anderson 2013, Williams 1990), but there is yet no consensus on this point.

Where did they go, and who are their descendants?

A frequently asked question is who are the historic descendants of the Kincaid people. Archaeology has not provided an answer. Oral histories from the Osage, Omaha, Quapaw, and other Dhegihan Siouans place their ancestors in the Ohio River valley (Bailey 1995). The wattle-and-daub, wall-trench houses at Kincaid are completely unlike the traditional Dhegihan earth lodges but perhaps the Dhegihans transited the lower Ohio valley after it was depopulated by Mississippian groups. Some people from Kincaid may have moved upstream to join the Caborn-Welborn settlements around the mouth of the Wabash, but again there is no hard evidence for that. Other possibilities include Muskogeans, such as the Chickasaw and Koasati, or Algonquian groups such as the Shawnee. There is limited evidence for small numbers of people moving north into the Shawnee Hills (Cobb and Butler 2002), but far too few to account for the depopulation of Kincaid and the Black Bottom.

There is no reason to think that people who left Kincaid all went to the same place or joined the same group. Some may have gone westward to the Degihan groups, others south to the Chickasaw, or eastward to the Caborn-Welborn towns near the mouth of the Wabash. Wherever they went, they may have blended in with the local population very rapidly. We know, for example, that after the decimation of the Natchez by French and allied warriors in 1731, some of the survivors fled to the western Cherokee town of Toqua. Complete excavation of the Toqua site (Polhemus 1987) found only a handful of sherds of Natchezan style pottery, and no Natchezan-style houses. The Osage oral histories describe multiple episodes of groups joining, and leaving, their ancestors, indicating that immigration and emigration occurred frequently, so people throughout the Mississippian area may have had much practice at moving around and joining other groups.

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