

SIUE 2014 FIELD SCHOOL

INVESTIGATIONS

AT 11MS99

Interim Report

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ABSTRACT

The SIUE archaeology field school took place on the SIUE campus in the summer of 2014. Excavations were focused on an area at the southern end of 11MS99 where field school excavations in 2009 and 2013 revealed prehistoric features, including pits, posts, and part of a wall trench structure. Although our primary research interest is in the Middle Woodland occupation of the site, a goal for 2014 was to complete excavation of the wall trench structure, which presumably dates to the Mississippian period. Excavations in the summer of 2014 reopened 16 square meters previously excavated in 2013 which had exposed the southern and eastern walls of the structure, and opened another 32 square meters to expose the remainder of the structure. Four pit features were found to be located inside the structure, at the base of the structure's floor; however, some of these might date to the Middle Woodland period occupation. Two large posts identified at the base of the structure's floor initially were thought to be Middle Woodland, but the presence of maize cobs in one suggests a Mississippian date. Another probable pit was identified east of the structure at the base of the plowzone, but we did not have time to excavate this feature. A second excavation block of 16 square meters was opened to explore further the Middle Woodland component. This block contained three pit features of unknown age, one of which extended into the east wall and was not excavated, and two or three large posts. The age of the posts is also unknown, but they are consistent in size and shape with posts excavated previously and are believed to be Middle Woodland in age.

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INTRODUCTION

The Anthropology Department of Southern Illinois University Edwardsville (SIUE) conducted an archaeological field school on the SIUE campus in Edwardsville Township, Madison County, Illinois, between May 19 and July 11, 2014. Field school investigations primarily consisted of excavations at the southern end of 11MS99. In addition, one day was spent mapping the historic Whiteside cemetery which lies on the bluff edge overlooking 11MS99. Julie Zimmermann Holt acted as field director and instructor of record, and Henry Holt directed the first week of investigation. Four students (Sandy Dalzotto, Steven Hanlin, Kyle Potter, and Jacob Province), who had all completed the 2013 field school at 11MS99, acted as undergraduate assistants for course credit. Seven students enrolled full-time (Linda Baynes, Maudie Knicley, Jackie Lampitt, Zachary Patton, and Amy Rinderer) or part-time (Joseph Gackstetter and Corinne Harvey) in the course and acted as field crew.

The primary goal of the SIUE archaeology field school is to teach students standard archaeological field methods. In addition, the field school offers research opportunities to SIUE anthropology faculty and also students, who are encouraged to do original research for their senior projects. Perhaps most importantly, the field school provides a means for recording endangered archaeological sites, which are rapidly disappearing due to development in Madison County. 11MS99, for example, has been severely impacted by decades of deep plowing and removal of artifacts by private collectors. The field school provides us with the opportunity to document archaeological resources on campus with the goal of protecting them, or excavating them if deemed necessary.

The field school achieved all of these goals. All students completed the course successfully and gained excavation experience. In terms of research, the data recovered from 11MS99 provide information about the Middle Woodland and Mississippian occupations at the Gehring site and more generally of the American Bottom. Two senior projects utilizing data recovered during the field school investigations at Gehring were undertaken during the 2014-15 school year (Hanlin 2015; Potter 2015). In terms of the third goal, we are happy to report that SIUE has removed 11MS99 from agricultural production as a result of our field school research.

This report summarizes results of the SIUE field school undertaken at 11MS99 on the SIUE campus in the summer of 2014. Excavations at 11MS99 were focused on an area at the southern end of the site where Middle Woodland and Mississippian features were excavated by the 2009 and 2013 field schools. Our 2014 excavations removed 64 square meters of plowzone, revealing eight pit features, multiple posts and possible post molds, and a wall trench structure. While the wall trench structure and two posts internal to the structure probably date to the Mississippian period, several pit features identified at the floor of the structure appear to be Middle Woodland in age. Other pit features and posts may also date to the Middle Woodland period.

This report will begin with a description of the project setting and a summary of previous investigations in the area. The bulk of the report will focus on our excavation methods and results at 11MS99. As of this writing, analysis of the artifacts collected at 11MS99 is still ongoing. When the analysis of these artifacts is complete, a final report will be written which will compare our findings with data from the greater American Bottom. Certainly, it is clear that the people who inhabited 11MS99 from the Late Archaic period through the Mississippian period were engaged in the social arena of the greater American Bottom.

The richness of the local natural resources has produced an equally rich archaeological record. Munson and Harn (1971) surveyed portions of the SIUE campus as part of a larger archaeological survey of the American Bottoms and Wood River terrace in 1963. Sites reported on campus by Munson included 11MS94, 11MS95, and 11MS96 on the bluff; and 11MS99 in the floodplain below (Figure 2). Archaic period components were recorded at 11MS96 and (albeit with a question mark) at 11MS95. Middle Woodland components were recorded at 11MS94 and 11MS99. A Late Woodland component was reported at 11MS95, and Mississippian components were recorded at 11MS94 and 11MS99.

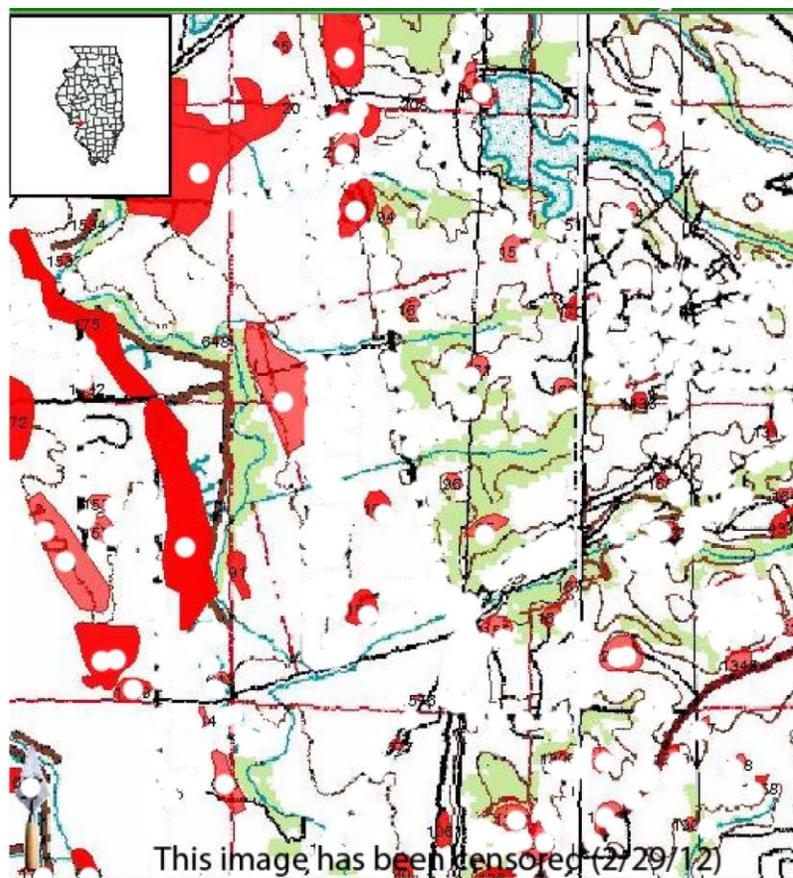


Figure 2. Location of previously recorded sites on the SIUE campus (<http://arch.museum.state.il.us/archsites/>).

Of these, 11MS99 was clearly the largest site, covering at least forty acres, and it seems to have had the densest concentration of artifacts. The site lies on the floodplain near the base of the bluff, on a terrace just east of Cahokia Creek. Munson named 11MS99 the Gehring site after Wilbur Gehring, then a tenant farmer of SIUE but formerly owner of the site. Munson described 11MS99 as a Havana village (Ms^V266) and mound (Ms^O267) and also a Bluff camp yielding Late Bluff rim sherds (Munson and Harn 1971:7, 13). On the IAS site form Munson also indicates a Mississippian presence at the site; other artifacts he collected included one Marion Thick sherd, and both straight and expanding stemmed points. On the site form Munson further indicates that his surface collection of 11MS99 was “arbitrarily” divided into three parts. The

northern part apparently lay to the north of an old street car trace that is referred to as a levee on a sketch of the site included with the site files. Today this street car trace or “levee” is used as a road to access utilities which have impacted the northern part of the site to an unknown extent (Booth 2014). The central and southern parts of the site lay to the south of the street car trace in a cultivated field. The central part of the site was highest in elevation, a relatively broad terrace closest to Cahokia Creek; the southern part of the site appears on the sketch map as a narrow finger ridge extending to the south. On the site form Munson noted that Middle Woodland artifacts were found on all parts of the site (northern, central, and southern), whereas Late Woodland and Mississippian artifacts were found only in the central part of the site. Munson’s artifact counts indicate that the greatest number of artifacts was collected in the central part of the site, which is not surprising giving that this relatively high and broad part of the site was used repeatedly throughout its history.

Review of Illinois Archaeological Survey (IAS) site files indicates that additional surveys were conducted on campus by Ken Williams and Ernest Evans in 1969. They reported a number of new sites on campus, including 11MS157, 11MS161, 11MS169, and 11MS170 in the uplands; 11MS165 on the bluff edge; 11MS168 on the slope of the bluff; and 11MS159 and 11MS160 on the floodplain. Most of these sites seem to have been small with light artifact densities, except for 11MS159, which was recorded as a possible village dating to the Woodland period. Woodland components were also reported at several other sites (11MS160, 11MS165, 11MS168, and 11MS170). No Archaic or Mississippian components were recorded by Williams and Evans.

In the early 1970s, SIUE professor Sid Denny conducted field school excavations at 11MS99 for two or three seasons. He referred to the site as the Keller Site because it was farmed by Vernon Keller at that time. Apparently no report of Denny’s excavation was ever written. Maher (1996) interviewed Denny in March of 1994 and reports that all of Denny’s excavation notes and maps were lost at that time, although he was able to examine some of Denny’s artifacts. In July of 2003 Holt transferred nine boxes of artifacts labeled MSV-99 from the SIUE Anthropology Lab to the SIUE University Museum. Presumably, these were artifacts from the Denny excavation. At that time the ISM declined to accept the collection for curation because no field notes could be found to accompany them. More recently, we have received an inventory of documents given by Denny to the SIUE Lovejoy Library Archives. This inventory lists documents from “MS99 Keller Site.” The documents are excavation forms from the 1970 excavation; these have been copied and are currently on file in the SIUE Anthropology Department. Four sheets of color slides from Denny’s excavations have remained on file in the SIUE Anthropology Department and have been digitally scanned. These slides also appear to be from the 1970 excavation, and show excavation of trenches with a road grader.

In an interview with Denny conducted on-site on May 20 of 2009, he indicated that in his first field season or two, he excavated test units on 11MS99. In his last field season he excavated two or three trenches with a road grader in the central part of the site. These trenches were perhaps 100 m long running north to south with perhaps 10 m between the trenches; the road grader and trenches were approximately 3 m wide.

In one trench, probably the one located farthest to the west, Denny observed a structure at the base of the plowzone which he described as a “small brush structure” (personal communication, May 2009). The structure was roughly rectangular and approximately 5 x 12 feet in plan view with a basin approximately 2.5 feet deep. (Note that Denny described the trenches in metric measurements and the structure in English; I am using his terminology here.) He said the structure contained no wall trenches, but randomly placed posts were noted, and few

artifacts were recovered. At first Denny thought this was a Middle Woodland structure, but his later discussions with personnel at Cahokia Mounds State Historic Site made him think that the structure dated to the Mississippian period. In the middle trench Denny observed a cluster of three or four pits (personal communication, May 2009). One of these contained Havana artifacts, while the others contained Mississippian artifacts such as Powell Plain and Ramey incised jars (which Denny described as “Fairmount Phase”). The trench farthest to the east contained no features.

The completed forms from Denny’s excavation are difficult to decipher since they don’t include an overall site map. (Although one slide from Denny’s fieldwork shows a student drawing a large map, no site maps were found among his notes.) The notes suggest the presence of one or two living surfaces below the plowzone. For example, one form (labeled 24 in the upper right hand corner) contains the comments, “Plow depth ranged from 25 to 40 cm. Under plow depth black band of undisturbed loamy soil grading into a lighter sandy brown soil. 2 possible occupation levels. Artifacts found in both soil types under plow zone. All pottery identified from both soil types (levels) as Mississippian.” Another sheet (labeled 25 in the upper right hand corner) contains the comments, “Black soil band under plowzone extended through all four pits on the walls. Possible depressed area where people threw refuse, not a midden, span of time used probably short.” It is not clear in these comments if “pits” refers to pit features or excavation units.

Although feature descriptions in these notes are very brief, they might provide some context to the artifacts recovered. It is also possible to identify several of the features in the slides. Feature 11 appears to have been a shallow pit feature, and about 2 m northeast of Feature 11, Feature 9 was labeled as a burnt corn concentration (sheet 15). Feature 8 was a shallow pit (sheets 16 and 62). Feature 4 was a bell-shaped pit (sheet 74). Feature 7 was circular in plan view, and was presumably a pit (sheet 77). Its surface was “covered w/large quantities of shell temp pottery (Cahokia Red shell temp plain and Ramey Incised), 1 reworked proj point drill, burned clay & rock” with “very little charcoal” (sheet 77). A sketch suggests it was found in association with a line of posts.

As part of his dissertation investigating the “Hopewell occupation” of the American Bottom, Maher (1996) examined artifacts from Denny’s excavation and surface collection, but apparently the artifacts were without specific provenience. Maher (1996: Tables D.5 and D.6) provides a list of the Middle Woodland ceramics he identified in Denny’s collection; he suggests that there were an equal number of Mississippian sherds in the assemblage (apparently dating to the late Stirling phase), as well as a “substantial collection of Early Woodland Marion Thick pottery” (1996:640). Maher (1996:640) also reports that Denny provided him with photographs from his excavation which “revealed the presence of pottery-filled pits (Figure D.15); a pit with a carbonized corn cob remains (Figure D.15), and midden-filled pits and post molds (Figure D.16) [sic].” Maher’s Figures D.15 and D.16 are included among Denny’s color slides now curated in the SIUE Anthropology Department.

Maher (1996) also conducted limited excavations at 11MS99, focusing on the purported mound. IAS site forms indicate that this “mound” was 80 feet in diameter and 3 feet high, and as Maher notes, the IAS site forms also indicate that previous owner Wilbur (or Wilber) Gehring dug a hole in the landform “many years ago [before 1969], but never found anything.” The IAS site forms indicate that a notched hoe was found near the possible mound, but was not necessarily associated with it.

Maher (1996) excavated in the possible mound to determine its cultural affiliation. He notes that at the time of his excavation in 1994, the purported mound was only 50 cm high and difficult to locate due to decades of plowing. Maher placed two transects of “soil probe cores” across the mound, and also excavated three 1 x 2 m units on the mound. All excavated sediments in these units were screened through half-inch mesh. No artifacts were recovered in two of the three units, and artifacts in the third were recovered from the plowzone only and were not culturally diagnostic. The stratigraphy in the excavation units was often disturbed and gave no indication of mound construction techniques (such as basket loading). Flotation samples were taken from supposed mound fill, but produced few plant remains. A hazelnut shell was submitted for radiocarbon dating and produced a date of 2475 ± 45 BP, suggesting a Late Archaic or Early Woodland affiliation (Maher 1996:659). However, Maher concludes that “the mound at Gehring remains an enigma” (1996:659). That is, the near absence of artifacts and lack of definitive evidence for mound construction could indicate that this was not a mound at all, but instead was a natural geomorphological feature, perhaps a remnant of a sand ridge.

The observations and collections of avocational archaeologist Keith Probst are equally important as those of professional archaeologists in understanding 11MS99. Probst collected 11MS99 and other sites in Madison County between 1967 and 1973, keeping a log of his finds in which he recorded artifact numbers, artifact descriptions, and site locations (Holt and Koldehoff 2015). In 2007 and 2008 Probst permitted Brad Koldehoff, Ken Farnsworth, and Julie Holt to examine his collection, photocopy his log, and photograph selected artifacts. In his log, Probst referred to 11MS99 as a “Hopewell” site, and our examination of his collection from 11MS99 confirms that it is predominantly composed of Middle Woodland artifacts. Middle Woodland lithic artifacts he collected include blades, blade cores, Snyders points (several of which were reworked into scrapers), North points, Manker points, a Norton point, celts, and a hoe. Middle Woodland ceramic types identified in the Probst collection include Havana plain, Hopewell rocker stamped, Netler stamped, and Sisters Creek fingernail punctate. A drilled bear canine from the site is also surely Middle Woodland, and a galena fragment and a quartz crystal are probably Middle Woodland. (One Snyders points was also made of quartz; this was found in the northern part of the site.) Early Woodland and Mississippian artifacts were also common. Early Woodland artifacts included 11 Kramer points (one of which was reshaped into a drill), and a probable limestone tube pipe (broken and unfinished) also appears to be Early Woodland. Mississippian artifacts include Cahokia points, Madison points, a Cahokia cordmarked jar rim with a red-slipped interior (Moorehead phase), a celt, and a Cahokia style discoidal. Two marine shell disk beads in the Probst collection are probably also Mississippian. The Probst collection from 11MS99 also includes a Dalton point (turned into a scraper), a variety of Late Archaic point types (Matanzas, Riverton, Adena, Copena, Etlely, and Motley), a Late Woodland Mund point, artifacts dating to the Terminal Late Woodland or Emergent Mississippian period (a Late Woodland arrow point and Late Bluff rim sherds), and an historic period ceramic pipe.

While revisiting 11MS99 in 2008, in 2009, and in 2013, Probst pointed out that the majority of Middle Woodland artifacts came to the surface only after the sand ridge in the southern part of the site was deep plowed for horseradish production. This observation suggests that prior to deep plowing, the site had been stratified. Probst also suggests that as much as five feet of sediment have been removed from this ridge (due to plowing and erosion) since the early 1970s.

We note that there are surely other privately held artifact collections from 11MS99 which would prove informative if they could be located. Probst collected the site for a relatively brief

period, and during that period he regularly observed footprints from other artifact collectors. Footprints from a collector were observed in our first visit to the site with Probst in March of 2008. Footprints of collectors were observed on-site every time it rained during the field school in May and June of 2009. We observed on June 1 of 2009 that a collector had been digging on-site, at the edge of an erosion gully at the southern end of the site. In addition, approximately 20 people actively surface collecting were observed firsthand by field school faculty and students during this period and reported to SIUE police. One collector reported that she had been told about the site by her employer, a local lawyer, who had collected the site for years with his family. A family caught collecting and stopped by SIUE police reported that they had been given permission to collect by Craig Keller (the current tenant farmer); they reported that they had collected the site for years and had seen many other collectors out there. It would be beneficial to examine the collections of these and other individuals, but unfortunately none have been forthcoming as of this writing. During our 2013 and 2014 field school excavations, we did not observe any collectors, nor did we observe evidence that the site had been visited by collectors. This could be in part a result of the police protection which began in 2009, and the installation in 2009 of IHPA signs forbidding artifact collection on site. Additionally, because the site is no longer plowed (since approximately 2011), it is certainly less attractive to collectors.

Julie Holt directed the 2009 SIUE archaeology field school at 11MS99 (Holt and Belknap 2010). A surface collection was conducted over the southern and central portions of the Gehring site, as well as ca. 85 acres of agricultural field adjacent to the central and southern portions of the site. Excavations at the southern end of 11MS99 revealed a Middle Woodland pit feature, and a second pit feature and a posthole that probably date to the Middle Woodland period. Further excavations in this area by the 2013 field school revealed additional pit features dating to the Middle Woodland period, and postholes which probably date to the Middle Woodland period (Holt 2013). Mississippian pit features were also excavated by the 2013 field school, and a Mississippian wall trench structure was partially exposed, mapped, and reburied.

Gregory Vogel directed the SIUE archaeology field school at 11MS99 in the summers of 2010, 2011, and 2012 (Vogel and Clemons 2011; Vogel et al. 2013). Vogel conducted extensive remote sensing at 11MS99, and his excavations focused on ground-proofing the remote sensing results in the central portion of the site. Pit features excavated by Vogel and students dated to the Middle Woodland, Late Woodland, Emergent Mississippian, and Mississippian periods. Structures were excavated dating to the Mississippian and historic periods. The presumed Mississippian structure was a wall trench structure. A Mississippian burial probably dating to the Moorehead phase was found in the summer of 2012; it contained copper, a shell-tempered ceramic discoidal, and red-slipped, shell-tempered pottery (Vogel 2012). After determining that this feature was a burial, it was immediately reported to the IHPA and reburied without further excavation.

Investigation of the stratigraphy at 11MS99 included excavation of deeper units by Holt and students in the southern portion of the site in 2009 and in the central portion of the site by Vogel and students in subsequent field seasons. Vogel also took sediment cores across the site. His stratigraphic analysis suggests potential for deeply buried cultural deposits at 11MS99. However, our excavations in 2013 and 2014 were limited in depth to investigation of features found at the base of the plowzone. If there are more deeply buried cultural deposits at the site, we don't have time to reach them in the course of a typical field school season because our field methods do not include use of heavy machinery.

Finally, 11MS99 has been the subject of recent CRM compliance work. Because the road which separates the northern and central portions of the site was scheduled to be improved, in May of 2014 several backhoe trenches were dug cross-cutting the road, and shovel tests were conducted just north and south of the road (Booth 2014). These investigations found nothing of archaeological significance. The road improvements were completed in summer of 2015.

FIELD METHODS AND RESULTS

Because our primary research interests are to better understand Middle Woodland use of the site and Middle Woodland life ways in the American Bottom, during the 2009 field school season we excavated at the southern end of the site in the vicinity of a Middle Woodland pottery concentration (Holt and Belknap 2010). Here we found a Middle Woodland pit feature (Feature 102), as well as a second pit feature (Feature 104) and a posthole (Feature 103) that probably also date to the Middle Woodland period. The Havana and Hopewell pottery recovered from Feature 102 were of particular interest given that (to quote Ken Farnsworth) they look “just like” pottery from the Illinois Valley.

In 2013, we continued excavation immediately east of Features 102 and 103, hoping to uncover a Middle Woodland post structure (Holt 2013). In this excavation block we found two more Middle Woodland pit features (Features 203 and 204), one of which (Feature 203) contained Hopewell (Bluffdale) pottery, mica, and a clay figurine. We also found posts, one of which (Feature 208) was similar in size to Feature 103; these two posts (Feature 103 and 208) could be part of a Middle Woodland post structure. We identified a semi-circle of smaller posts (Feature 205) which might also date to the Middle Woodland period.

In 2013, additional excavation blocks were opened up nearby to ground proof Greg Vogel’s remote sensing data (Holt 2013). An excavation block northeast of the Middle Woodland features revealed two pits (Features 210 and 211) which were possibly Archaic in age, three shallow pit features (Features 206, 207, and 209) which contained Mississippian ceramics, and part of a wall trench structure (Features 212 and 213). We exposed a southern wall trench (Feature 212) and double eastern wall trenches (Feature 213) in entirety; we also exposed the east end of double northern wall trenches and the southern end of a western wall trench. Thus, we were able to determine that the wall trenches formed a four-sided wall trench structure, presumably Mississippian in age, but we did not have time to excavate it. A small section of the southern wall trench (Feature 212) was bisected and excavated before it was recognized as a wall trench, and a small section of the house basin was excavated. Otherwise, the wall trench structure was left unexcavated because we were nearing the end of our field season: we photographed and mapped the exposed wall trenches, covered them with 4 ml black plastic, and then backfilled to protect them until the 2014 field season.

Our objectives for the 2014 excavation were to continue investigation of the Middle Woodland occupation, still hoping to identify a Middle Woodland post structure, and to excavate the probable Mississippian wall trench structure. Two excavation blocks were laid in during the first week of the 2014 field school. A 2x4 m excavation block consisting of Units CA and CB was laid in immediately east of the area which had contained Middle Woodland Features 102, 203, and 204. Eventually this block was expanded to include Units CM, CN, CO, and CP. The resulting excavation block was 16 square meters and irregular in shape. The second excavation block was laid in to expose fully the wall trench structure. (It was decided to call the wall trench structure Feature 212 since this was the name given to the first part of the structure identified, the south wall trench, in the 2013 excavation season. In 2013, the eastern wall trenches and a small portion of the basin were named Feature 213, but we have discontinued that nomenclature in the present report.) We reopened old units BG (north half only), BH (north half only), BM, BN, BO, and BP to re-expose the south and east wall trenches. New units laid in to expose the rest of the structure included CC, CD, CE, CF, CG, CH, CI, CJ, CK, and CL. The new units covered a total

of 32 square meters; together with the old units, this excavation block measured 6x8 m, or 48 square meters.

Site datum coordinates for our excavations in the southern portion of the site can be found in Table 1 (Holt 2009, 2013). Please note that our coordinates are on a different grid system than that later created by Vogel in the central part of the site (Vogel and Clemons 2011; Vogel et al. 2013). Unit coordinates and sizes for the 2014 excavation can be found in Table 2. Unit coordinates refer to the southwest corner of the unit.

Table 1. Site Datum Coordinates (Zone 15S)

SIUE grid coordinates	X (UTM)	Y (UTM)
N419 E396	759095	4297430
N399 E396	759096	4297408

Table 2. Unit Coordinates.

Unit name	SIUE grid coordinates	Unit size
CA	N410E400	2x2 m
CB	N408E400	2x2 m
CC	N424E400	2x2 m
CD	N424E402	2x2 m
CE	N424E404	2x2 m
CF	N425E406	1x2 m
CG	N422E400	2x2 m
CH	N422E402	2x2 m
CI	N422E404	2x2 m
CJ	N420E400	1x2 m
CK	N421E402	1x2 m
CL	N421E404	1x2 m
CM	N410E402	1x2 m
CN	N408E402	1x2 m
CO	N412E402	1x2 m
CP	N410E403	1x2 m

Excavation was begun on Tuesday, May 20, and completed on Thursday, July 10. All sediments were removed by hand (shovel and trowel). First we removed backfill from old Units BG, BH, BM, BN, BO, and BP. When we reached the black plastic laid at the base of excavation in these units in 2013, we initially left a thin layer of backfill to continue holding down the plastic protecting the south and east wall trenches of Feature 212. The plowzone in all new units was removed in one natural level, screened through ¼ inch mesh, and described using standard nomenclature (Munsell colors and USDA textures). At the base of the plowzone, the subsoil was troweled to look for possible features. When the plowzone was removed exposing Feature 212 in the new units, the last remaining backfill and plastic were removed from the old units to expose the entire wall trench structure in plan view.

Feature 212 and all other possible cultural features identified at the base of the plow zone were drawn and photographed in plan view and then bisected. The first half of each feature was excavated, usually as a single stratum (although the basin of Feature 212 was excavated in 1x1 m squares, labelled according to unit and unit half or unit quarter designations). The profile of the feature (including the basin and all wall trenches for Feature 212) was then photographed and drawn. Any distinct strata visible in profile were excavated separately in the second half of the feature, with flotation samples taken from each. Standard size of flotation samples was supposed to be 10 l, but it was found in the lab during processing of the flotation samples that students had often overestimated the size of the samples. (For example, instead of 10 l samples, students commonly collected 8 l samples.) If a stratum were not large enough to yield a 10 l sample, smaller samples were taken; because so many flotation samples were taken from Feature 212, these were also smaller. (As noted above, Feature 212 was excavated in 1x1 m squares; flotation samples were taken from each square in the west half of the structure. Additionally, each wall trench of Feature 212 was sampled for flotation processing.) All feature sediments not saved for flotation were screened using ¼ inch mesh.

The plowzone was found to range between 20 and 30 cm deep, and was described as a 10YR 3/3 dark brown sandy loam. According to the USDA (2009), the soil is classified as Onarga sandy loam. The subsoil immediately beneath the plowzone was typically a 10YR 4/6 dark yellowish brown clay loam. The most common artifacts found in the plowzone included chert, ceramics, and FCR (Table 3). Examination of Table 3 suggests very few artifacts were recovered from Units BG, BH, BM, BN and BP, but that's because the plowzone in these units had been removed in 2013 (see Holt 2013); that is, all artifacts recovered from these units in 2014 were from floor cleaning only (troweling before photographing Feature 212, the wall trench structure). The highest concentrations of chert were found in the plowzone of Units CH and CI, which overlay Feature 212. The highest concentrations of pottery and FCR were found in Units CI and CE, which also overlay Feature 212. Lithic artifacts recovered included numerous hoe flakes and lamellar blades in both excavation blocks. Several point fragments were recovered, but these have not been identified to type as of this writing. An obsidian flake was recovered from Unit CJ. Middle Woodland pottery (featuring nodes, dentates, and other surface decorations), Terminal Late Woodland/Emergent Mississippian pottery (Bluff jars, composed of Madison County Shale and featuring smoothed-over cordmarking above the shoulder), and Mississippian pottery (featuring shell temper and sometimes red slip) were found in both excavation blocks.

Next I will describe the features identified at the base of the plowzone in numeric order. A summary of feature dimensions, shape, and interpretations can be found in Table 4. A summary of artifacts found in each feature can be found in Table 5.

Table 3. Plowzone Artifact Summary.

Unit	Chert	Sherds	FCR	FCR (g)	Pebbles	LS ¹	SS ²	Bone	Burnt clay	Ochre	Ground stone tool?	Historic
BG	1	3	1	1	0	0	0	0	2	0	0	0
BH		1	1	<1	0	0	0	0	0	0	0	0
BM	3	7	7	<1	0	0	0	0	1	0	0	0
BN	4	4	0	0	0	0	0	0	0	0	0	0
BP	4	1	0	0	0	0	0	0	0	1	0	0
CA	152	423	346	885	6	0	3	15	102	10	0	0
CB	186	538	371	944	1	0	1	12	101	12	0	2
CC	117	334	162	500	10	0	12	1	18	15	0	32
CD	158	384	233	460	1	2	11	4	21	11	0	11
CE	209	589	408	904	1	4	4	4	33	60	0	1
CF	111	247	181	430	0	4	4	4	51	8	0	4
CG	178	385	200	580	6	0	4	13	25	6	0	6
CH	240	485	202	1247	9	1	14	2	63	27	0	3
CI	291	801	476	992	0	0	8	12	110	7	0	4
CJ	84	160	90	273	2	4	5	4	28	1	0	0
CK	78	181	172	279	1	0	4	26	33	0	0	0
CL	108	286	75	370	0	0	1	8	50	7	1	0
CM	118	259	190	524	1	9	19	16	52	0	0	3
CN	121	217	112	314	1	0	4	15	38	0	0	1
CO	75	211	78	482	0	0	1	9	27	3	0	1
CP	87	185	103	381	0	9	2	3	40	6	1	0

¹LS = Limestone

²SS = Sandstone

Feature 212 is a rectangular Mississippian wall trench structure (see Tables 4 and 5; Photos 1-11; Figures 3-6), with double wall trenches on the north and east sides of the structure, and single wall trenches on the south and west sides of the structure. The area of the structure, at ca. 28 square meters, is large compared to an average Mississippian house. For example, Lohmann phase wall trench structures excavated at Cahokia's Tract 15A were only 12.5 square meters on average, and Lohmann phase wall trench structures at Knoebel were only 12 square meters on average (Alt 2001). The remaining basin of Feature 212 is shallow, with only 5-10 cm left intact after decades of intensive agriculture (see Holt 2013). While it was relatively easy to see the structure's basin in profile, it was often difficult to distinguish the floor of the structure's basin compared to the subsoil below it in plan view during excavation (see Photos 1 and 2). The wall trenches were typically around 20 cm wide and ranged between 25 and 40 cm deep below the plow zone; some of these contained very pale fill and were difficult to recognize in places (see Photos 1-11). The northern and western wall trenches seemed lighter than the southern and eastern trenches; and the northernmost of the two northern trenches was especially difficult to see. Whether this was because the southern and eastern trenches were uncovered in 2013 and left

unexcavated until 2014, or whether this is because the trenches were filled in at different times prehistorically, is unclear. Several possible posts were observed in the wall trenches, but only one, the most likely to be a post, was photographed (see Photos 8-9). This was located near the center of the west wall – just north of the west wall profile – and was noted at the base of the wall trench. The possible post was approximately 10 cm in diameter at the base of the wall trench.

Table 4. Feature Data.

Feature	Length (cm)	Width (cm)	Depth (cm)	Plan	Profile	Interpretation
212	470	600	5-50	rectangular	vertical?	wall trench structure
220	118	91	36		irregular	
221	21.5	20	29	circular	vertical	posthole
222	26	25	1	circular	NA	non-cultural
223	30	25	1	circular	NA	non-cultural
224	61	40	42	amorphous	irregular	pit
225	25	24	38	circular?	vertical	posthole?
226	23	20	9	circular	vertical	posthole?
227		54	57	circular	vertical	pit
228	59	36.5	20	oval	irregular	pit
229	96	87	17	circular	basin	pit
230	21	20	18	circular	vertical	posthole?
231				unknown	unknown	unexcavated
232				circular	unknown	unexcavated
233	18	17	30	circular	vertical	possible post
234			0	circular	NA	non-cultural
235	18.5	18	0	circular	NA	non-cultural
236	20	NA	18	circular?	vertical	possible post
237	17	NA	11	circular?	basin	possible post
238	47.5	40	52	oval	vertical	pit
239	21	19	20	circular	vertical	possible post
240	9	9	7	circular	vertical	possible post
241	5	5	4	circular	vertical	possible post
242	5	5	6	circular	vertical	possible post
243	6	5	6	circular	vertical	possible post

Table 5. Feature Artifact Summary, Screened Sample.

Feature	Stratum	Chert	Sherds	FCR	FCR (g)	LS ¹	SS ¹	Stone tools?	Ochre	Bone	Burnt clay	Historic
212	basin	102	262	93	359	1	1	0	8	3	73	2
212	E trench A	35	111	45	84	0	0	1	1	1	52	0
212	E trench B	42	114	42	48	0	1	1	0	4	48	0
212	S trench	24	59	21	142	0	0	0	0	0	17	0
212	W trench	34	102	21	49	0	7	0	0	4	23	0
212	N trench 1	19	86	39	80	0	1	0	0	3	23	0
212	N trench 2	46	150	46	142	0	2	0	0	6	69	0
220	A&B	30	62	25	26	0	0	0	25	12	19	0
221	A	4	2	2	2	0	0	0	0	1	0	0
222	A	0	0	0	0	0	0	0	0	1	0	0
224	A	7	7	3	1	0	0	0	0	0	3	0
227	A&B	10	20	3	28	0	0	0	0	0	7	0
228	A	0	6	2	1	0	0	0	0	1	4	0
229	A	12	48	8	6	0	6	0	0	1	5	0
230	A	1	0	0	0	0	0	0	0	0	0	0
232	A	0	5	0	0	0	0	0	0	1	0	0
233	A	1	4	0	0	0	0	0	0	0	0	0
238	A	12	36	6	4	0	0	0	0	22	3	0

¹LS = Limestone

²SS = Sandstone

The density of artifacts in Feature 212 seemed low during excavation, and the artifact sample from the basin is especially small (see Table 5), certainly in part due to the shallow depth of fill remaining in the basin. Moreover, very few artifacts were noted on the floor of the basin, suggesting that most artifacts in the structure's basin were deposited after the structure was abandoned. Whether the artifacts in the wall trenches were deposited when the walls were first installed or whether the artifacts were deposited when walls were removed was unclear. A mix of lithic artifacts from the Middle Woodland and Mississippian occupations was recovered from Feature 212, including multiple Middle Woodland lamellar blades and probable Mississippian hoe flakes from both the basin and wall trenches. Other probable Mississippian lithic artifacts included a microdrill from the basin and an arrow point from the south wall trench. The ceramics recovered from the basin and wall trenches of Feature 212 appear to be mostly grit and grog tempered, or Woodland in age, with at least one noded and incised rim from the basin and at least one noded sherd from a northern wall trench suggesting a Middle Woodland date. However, shell tempered sherds were also recovered from Feature 212, most commonly in the northern wall trenches, which would be consistent with a Mississippian occupation. Sherds from a possible Cahokia Cordmarked jar in East Trench A (that is, the westernmost of the two eastern wall trenches) suggest a Moorehead phase designation for Feature 212 (Potter 2015).

Multiple features were identified on the floor of Feature 212's basin; all of these were located in the east half of the structure (see Photo 11). These included pit features (Features 227, 228, 229, and 238) and probable posts (Features 226, 230, and 233). These features contained

few artifacts, so it is unclear if they predated or were contemporary with Feature 212. Features 227 and 229, however, appear to be Middle Woodland based on their artifact content. Based on their diameter, it was initially thought that Features 226 and 230 were Middle Woodland posts, but Feature 230 contained a rich deposit of charred maize, suggesting these probable posts were Mississippian in age. Other possible posts (Features 234, 235, 236, and 237) were investigated and determined not to be cultural features. Feature 240 was a post located in the southwest corner of Feature 212. These features and possible features will be described further below.



Photo 1. Feature 212, view of east wall trenches in plan view; basin visible in profile.

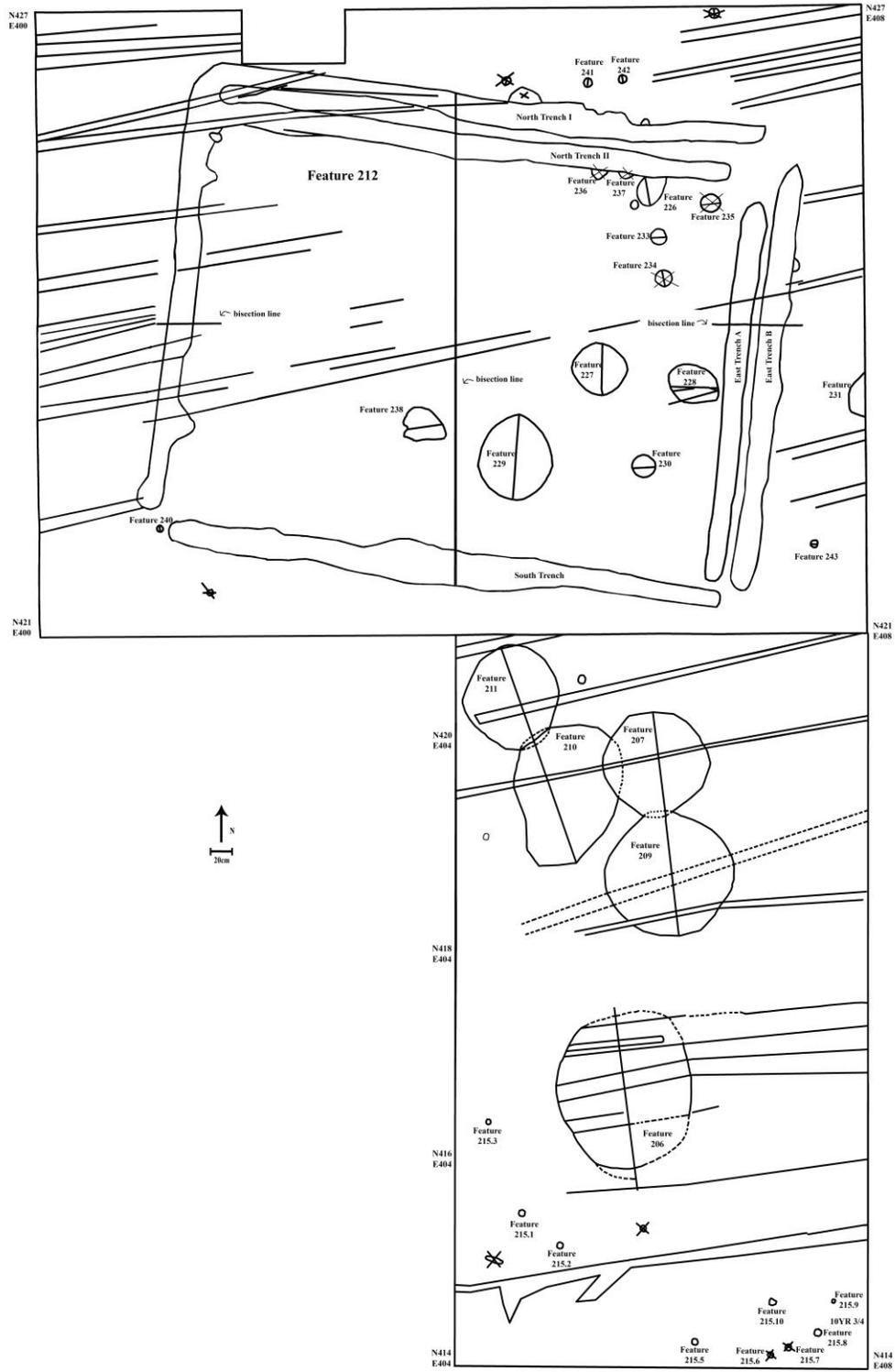


Figure 3. Wall trench structure (Feature 212) and other features, plan view.

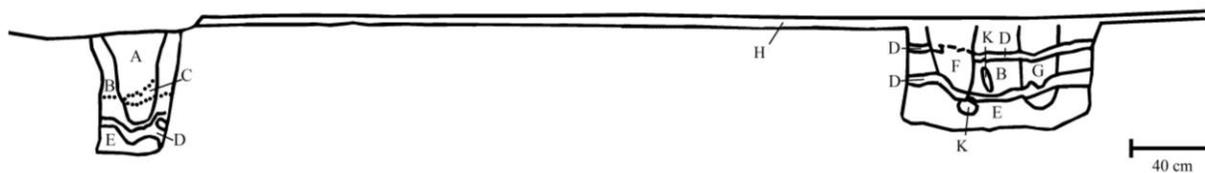


Figure 4. Feature 212, profile facing west.

- A = South wall trench (10YR 3/2 very dark grayish brown silty loam)
- B = Subsoil (10YR 3/4 dark yellowish brown clay loam)
- C = Clay deposit (mix of subsoil and trench fill)
- D = Lamellae (10YR 3/3 dark brown clay loam)
- E = Subsoil (10YR 4/4 dark yellowish brown sandy loam)
- F = North wall trench II (10YR 2/2 very dark brown silty loam)
- G = North wall trench I (10YR 3/3.5 dark brown silty loam)
- H = House basin (10YR 2/2 very dark brown silty loam)
- K = Krotovina (10YR 2/1 black silty loam)

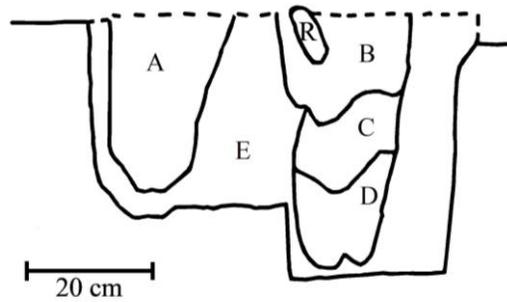


Figure 5. Feature 212, east wall trenches, profile facing north.

- A = East wall trench A (10YR 3/3 dark brown silty loam)
- B = East wall trench B (10YR 3/1 very dark grayish brown silty loam)
- C = East wall trench B (10YR 3/3 dark brown silty loam)
- D = East wall trench B (10YR 2/2 very dark brown silty loam)
- E = Subsoil (10YR 4/4 dark yellowish brown clay loam)

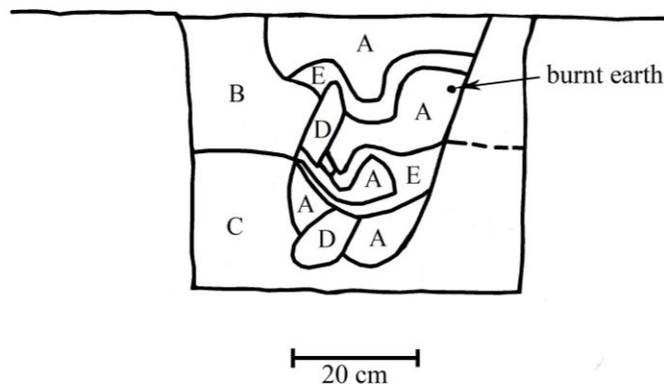


Figure 6. Feature 212, west wall trench, profile facing south.

- A = West wall trench (10YR 4/2 dark grayish brown silty loam)
- B = Subsoil (10YR 3/4 dark yellowish brown silty loam)
- C = Subsoil (10YR 4/4 dark yellowish brown clay loam)
- D = Bioturbation (10YR 3/2 very dark grayish brown silty loam)
- E = Lamellae (10YR 3/3 dark brown clay loam)



Photo 2. Feature 212, basin bisection profile; facing southwest.



Photo 3. Feature 212, east and north wall trenches in plan view; facing southeast.



Photo 4. Feature 212, south wall trench profile; facing west.



Photo 5. Feature 212, north wall trenches profile; facing west.



Photo 6. Feature 212, west and south walls in plan view; facing northeast.



Photo 7. Feature 212, east wall trenches profile; facing north.



Photo 8. Feature 212, base of west wall trench showing possible post.



Photo 9. Feature 212, base of west wall trench, close-up of possible post.



Photo 10. Feature 212, west wall trench profile; facing south.



Photo 11. Feature 212, showing features on floor of basin; facing west.

Feature 220 was located in the smaller excavation block, in Units CA and CB (see Figure 7). In profile, Feature 220 suggested a post pit (labelled Strat A) with an insertion ramp extending to the south (labelled Strat B), or a small pit with vertical sides (Strat A) superimposing a shallow basin-shaped feature (Strat B) (see Tables 4 and 5; Photos 12-14; Figures 7-8). The soil in both Strat A and Strat B was described as a 10YR 3/2 very dark grayish-brown sandy loam; however, it was noted that Strat B was a slightly different color, and examination of Photos 12-13 shows that Strat B was lighter in color than Strat A. Both strata contained ceramics and burned clay; Strat A, and possibly Strat B, also contained chert, FCR, and bone (since the two strata were not excavated separately in excavation of the first half of the feature, this distinction in contents is not entirely clear). A large quantity of ochre, including one large chunk and smaller fragments (in total weighing 379 g), was found entirely at the base of Strat B. The ceramics in Strat A included at least one small dentate stamped sherd, which might suggest that this is a small Middle Woodland storage pit which superimposed an older basin-shaped pit; alternatively, Feature 220 could be a Mississippian post pit with insertion ramp, having older trash incorporated within its fill. Examination of Photo 14, which shows Feature 220 at base of excavation, suggests that these were two separate features, which might support the former interpretation. Feature 225, a probable post, was located immediately northwest of Feature 220; because Feature 225 was not observed until excavation of Feature 220 was underway, is not clear if the two features overlapped. However, examination of Photos 13 and 14 suggests that they did not.



Photo 12. Feature 220, plan view.



Photo 13. Feature 220, profile facing east.



Photo 14. Feature 220, base of excavation.

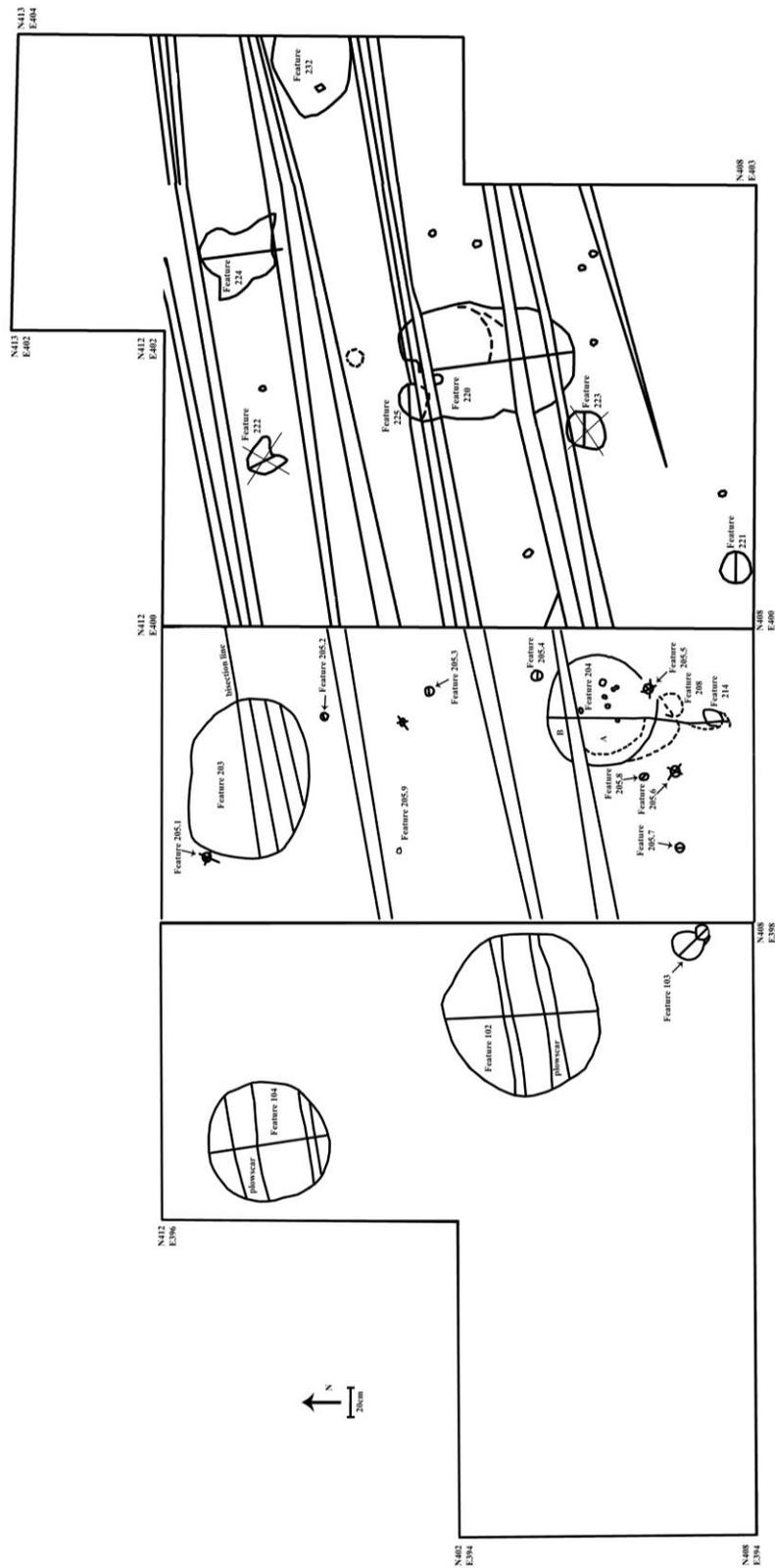


Figure 7. Southern excavation block, plan view.

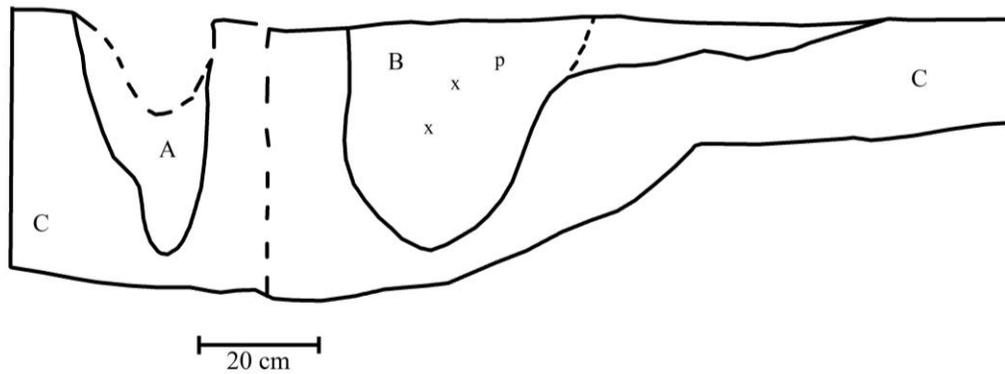


Figure 8. Feature 220, profile facing east, and Feature 225, profile facing north.

- A = Feature 225 fill (2.5Y 3/3 dark olive brown mottled with 2.5Y 5/3 light olive brown loam)
- B = Feature 220 fill (10YR 3/2 very dark grayish brown sandy loam)
- C = Subsoil (10YR 4/6 dark yellow brown clay loam)
- p = pottery
- x = charcoal

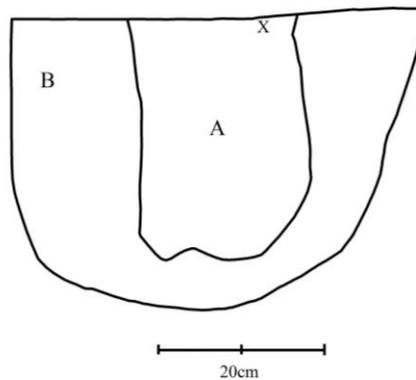


Figure 9. Feature 221, profile facing south.

- A = Feature 221 fill (10YR 4/6 dark yellow brown and 10 YR 3/3 dark brown clay loam)
- B = Subsoil (10 YR 4/6 dark yellow brown clay loam)
- x = charcoal

Feature 221 was located in Unit CB (Figure 7). It was identified as a posthole, circular in plan view and with vertical walls, ca. 20 cm in diameter and 30 cm in depth (see Tables 4-5; Photos 15 and 16; Figure 9). Its fill was described as a 10YR 4/6 dark yellow brown clay loam. Because Feature 221 is similar in size to the other possible Middle Woodland posts excavated in this area (Features 103 and 208), together they could form a Middle Woodland post structure. Feature 221 contained a few chert flakes, sherds, and FCR, but nothing diagnostic to time period.



Photo 15. Feature 221, plan view.



Photo 16. Feature 221, profile facing south.

Feature 222 was located in Unit CA, and Feature 223 was located in Unit CB (Figure 7). These were identified as possible postholes, circular in plan view and ca. 25 cm in diameter (Tables 4-5; Photos 17-20). When bisected and trowelled, however, they disappeared quickly, so it was determined that these were not cultural features, or they simply could have been small remnants of plowed soil. Feature 222 was described as a 10YR 3/4 dark yellowish brown silty loam and contained one small bone fragment; Feature 223 was described as a 10YR 4/1 dark gray sandy loam and contained no cultural materials.



Photo 17. Feature 222, plan view.



Photo 18. Feature 222, base of excavation.



Photo 19. Feature 223, plan view.



Photo 20. Feature 223, base of excavation.

Feature 224 was located in Unit CM (Figure 7). It was amorphous in plan view due to heavy disturbance from plowing (see Tables 4 and 5; Photos 21-22; Figure 10). In profile it appears similar to Feature 220; that is, the profile might suggest a post pit with insertion/exertion ramps. However, the “ramps” visible at the north and south ends of the profile are at least in part due to plow disturbance. Without this disturbance, the profile suggests a pit with walls that are irregular, vertical to inslanting on the north side and vertical to belling on the south side. The feature fill was described as a 10YR 3/3 dark brown clay loam, and large chunks of charcoal are visible in the profile and plan view (see Photo 22). Feature 224 contained a small number of chert, sherds, FCR, and burnt clay.



Photo 21. Feature 224, plan view.



Photo 22. Feature 224, profile facing west.

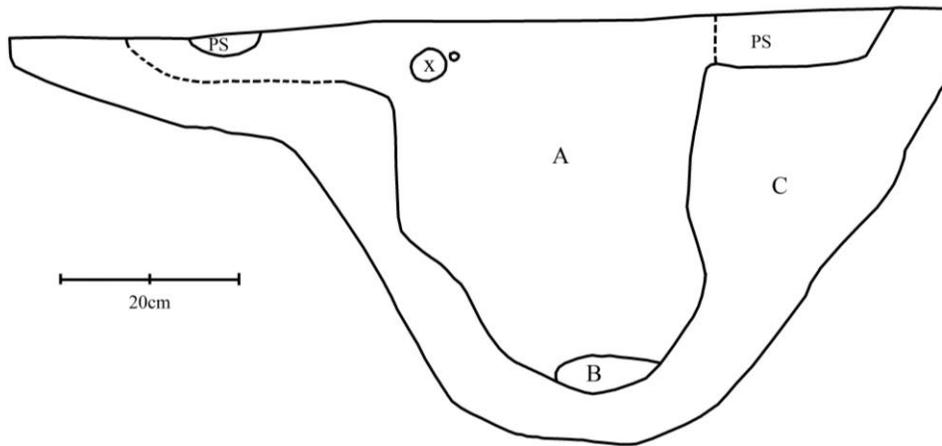


Figure 10. Feature 224, profile facing west.

A = Feature 224 fill (10YR 3/3 dark brown clay loam)
 B = Bioturbation (10YR 3/1 very dark gray clay loam)
 C = Subsoil (10YR 4/6 dark yellow brown clay loam)
 PS = plowscar

Feature 225 was a probable posthole ca. 25 cm in diameter and 40 cm in depth, a 10YR 3/3 dark olive brown loam (see Tables 4 and 5; Photo 23); it was located in Unit CA. Because it was plow disturbed at top, it went undetected at the base of the plowzone; thus its plan view is estimated on its southern edge, indicated by a dashed outline in Figure 7. It was noticed in profile while excavating Feature 220, and so it was profiled when Feature 220 was profiled (see Figure 8). Because Feature 225 was partially removed before it was noticed, a scoop of fill can be seen to be missing from the top of Feature 225 in Photo 23, indicated by the dashed line in Figure 8. Feature 225 is similar in size to the other possible Middle Woodland posts excavated in this area (Features 103, 208, and 221). It does not clearly align with all three of those possible posts; however, it could align with any two of those three. Feature 225 contained no artifacts.



Photo 23. Feature 225, profile facing north.

Features 226 and 230 were small features respectively located in the northeast and southeast quarters of the floor in Feature 212, the wall trench structure (Figure 3). Feature 226 was located in Units BN and CE, and Feature 230 was located in Unit CL. Features 226 and 230

were initially similar in appearance – they were similar in size (ca. 20 cm in diameter), shape (circular in plan view), and color (10YR 4/3 brown sandy loam). However, their profiles and contents were different. In profile, Feature 226 was shallow (ca. 10 cm deep) with somewhat vertical walls and an irregular floor (see Tables 4 and 5; Photos 24-25; Figure 11). Feature 226 contained no artifacts, so its age is unknown: it is unclear if it is contemporary with Mississippian Feature 212, or if it predates it. However, if it is contemporary with Feature 230, it is probably Mississippian in age, because Feature 230 contained an abundance of charred maize. Feature 230 will be described further below.



Photo 24. Feature 226, plan view.

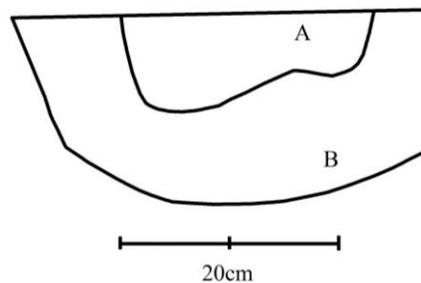


Figure 11. Feature 226, profile facing west.

A = Feature 226 fill (10YR 4/3 brown sandy loam)
B = Subsoil (10YR 4/4 dark yellowish brown clay loam)



Photo 25. Feature 226, profile facing west.

Feature 227 was located in the east half of the floor of Feature 212 (Figure 3); it was located in Unit CI. It was circular in plan view, approximately 55 cm in diameter, with a vertical profile, approximately 60 cm deep (see Tables 4 and 5; Photos 26-27; Figure 12). Two strata were detected during excavation. Both strata were remarkably homogenous sandy loams, but the upper stratum was slightly darker (10YR3/2 very dark grayish brown) than the lower stratum (10YR 4/3 brown). These two strata were dissected by several lamellae. Feature 212 contained pottery, chert, burnt clay, and FCR. One ceramic rim sherd recovered has yet to be identified. A broken spear point appears to be a Snyder point made of Dongola chert, which may suggest that Feature 227 is Middle Woodland in age. Ste. Genevieve chert was also present.



Photo 26. Feature 227, plan view.

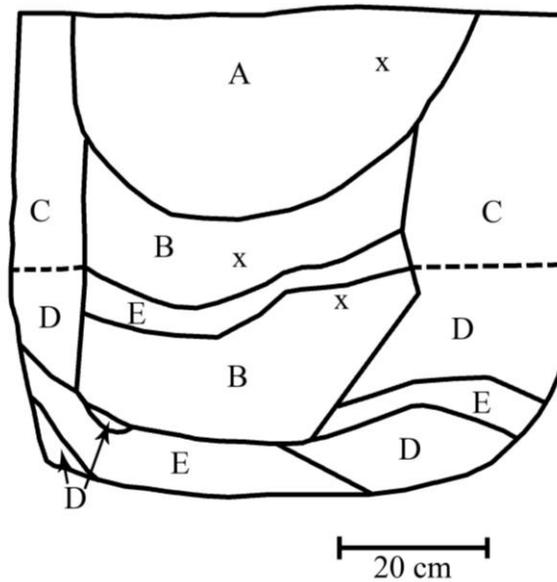


Figure 12. Feature 227, profile facing south.

- A = Feature 227 fill (10YR 3/2 very dark grayish brown sandy loam)
- B = Feature 227 fill (10YR 4/3 brown sandy loam)
- C = Subsoil (10YR 3/4 dark yellowish brown clay loam)
- D = Subsoil (10YR 4/4 dark yellowish brown clay loam)
- E = Lamellae (10YR 3/3 dark brown clay loam)
- x = charcoal

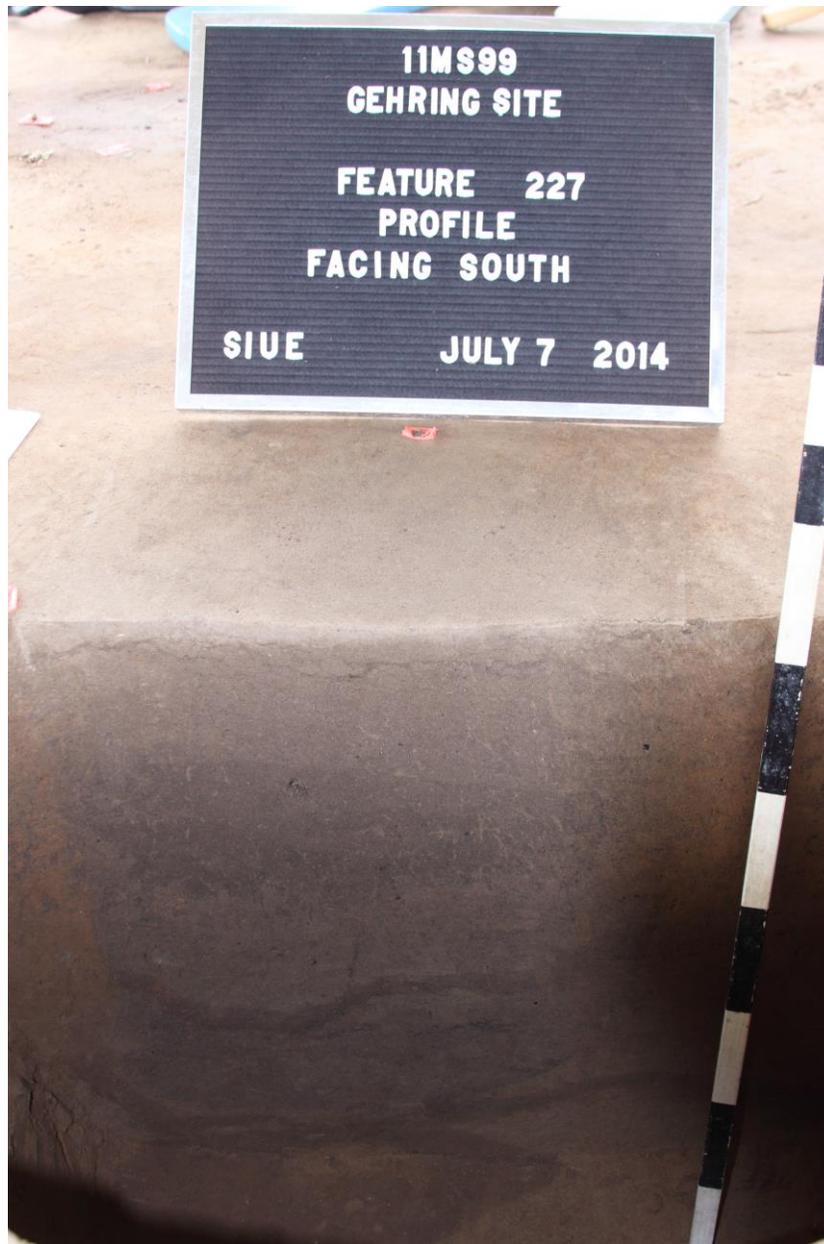


Photo 27. Feature 227, profile facing south.

Feature 228 was located in Unit BM; it was observed in the floor of Feature 212 during the 2013 excavation but was unnamed at that time since its relationship with Feature 212 was uncertain. This was in part due to plow disturbance and in part because only a small portion of Feature 228 was exposed in plan view (see Holt 2013: Figure 9). Excavation of Features 212 and 228 in 2014 suggest that the westernmost of Feature 212's east wall trenches superimposed Feature 228 (e.g., see Figure 3 and Photo 11); thus, Feature 228 apparently predates Feature 212. Feature 228 was oval in plan view, approximately 60 cm long by 36 cm wide (see Tables 4 and 5; Photos 28-29; Figure 13). In outline, the profile of Feature 228 like Feature 220 suggested a post pit with an insertion ramp, or a small pit with vertical sides superimposing a shallow basin-

shaped feature. However, the stratigraphy in Feature 228 did not suggest two parts to the feature, as did the stratigraphy in Feature 220. Although Feature 228 was very shallow, only 20 cm deep, it contained several strata: Strat A (a 10YR 3/3 dark brown silty loam) was uppermost, and extended to the east; below Strat A, Strat C (a 10YR 3/4 dark yellowish brown mottled clay loam) appeared to be a disturbance which brought subsoil into Strat B (a 10YR 2/2 very dark brown silty loam). Feature 228 contained very few cultural materials – a few sherds, burnt clay fragments, FCR, and a bone fragment.

Feature 229 was also identified in the east half of the floor of Feature 212 (Figure 3); it was located in Unit CL. Feature 229 was a shallow pit, circular in plan view and basin-shaped in profile (see Tables 4 and 5; Photos 30-31; Figure 14). It was relatively broad (nearly 1 m in diameter) and shallow (less than 20 cm deep), and contained only one stratum (a 10YR 3/3 dark brown sandy loam). It contained a higher density of artifacts than the other features located in the floor of Feature 212, including sherds, chert, FCR, sandstone, burnt clay, and a bone fragment. Preliminary examination of the pottery suggests that Feature 229 is Middle Woodland in age.



Photo 28. Feature 228, plan view.

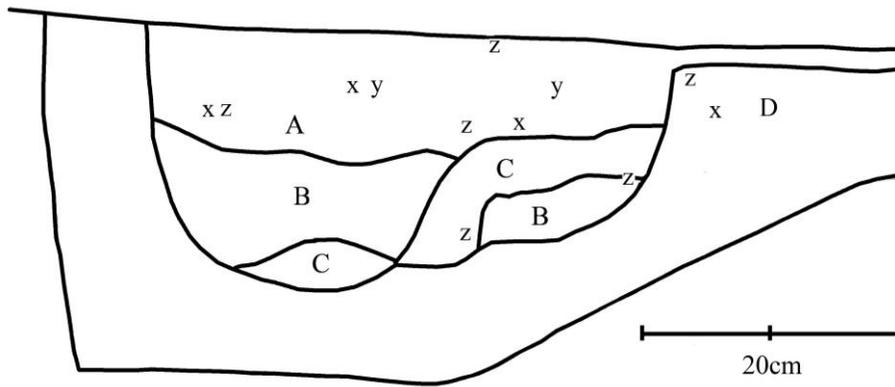


Figure 13. Feature 228, profile facing north.

- A = Feature 228 fill (10YR 3/3 dark brown silty loam)
- B = Feature 228 fill (10YR 2/2 very dark brown silty loam)
- C = Feature 228 fill (10YR 3/4 dark yellowish brown clay loam)
- D = Subsoil (10YR 3/4 dark yellowish brown clay loam)
- x = charcoal
- y = bone or shell
- z = burnt clay



Photo 29. Feature 228, profile facing north.



Photo 30. Feature 229, plan view.



Photo 31. Feature 229, profile facing west.

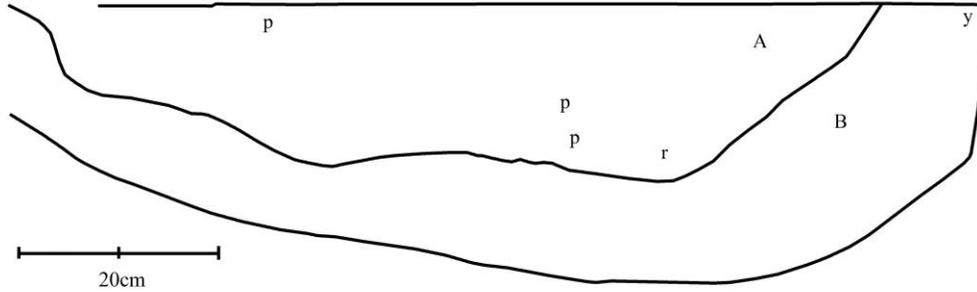


Figure 14. Feature 229, profile facing west.

- A = Feature 229 fill (10YR 3/3 sandy loam)
- B = Subsoil (10YR 3/4 dark yellowish brown clay loam clay loam)
- p = pottery
- r = rock
- y = bone

Feature 230 was a small feature located in the southeast corner of the floor of Feature 212, in Unit CL (Figure 3). At its surface, Feature 230 seemed similar to Feature 226 in size (ca. 20 cm in diameter), shape (circular in plan view), and color (Feature 226 was a 10YR 4/3 brown sandy loam). However, as noted above, the profiles and contents of Features 226 and 230 were different (see Tables 4 and 5; Photos 32-33; Figure 15). In profile, Feature 226 was shallow (ca. 10 cm), and it contained no cultural materials. Feature 230 was nearly 20 cm deep and vertical in profile. It contained two strata, both a 10 YR 3/2 silty loam; the lower stratum contained an abundance of charcoal (notably including charred maize and also nut shell) and burnt earth. While the only artifact observed in Feature 230 was a piece of chert, the abundance of maize in Feature 230 almost certainly indicates that it is Mississippian in age and therefore probably contemporary with Feature 212. The shape and size of Feature 230 might suggest that it was a structural post, but if that were the case, then it must have been filled with burnt earth and plant refuse after the post was pulled. When the paleoethnobotanical analysis is completed, we hope to submit a sample of maize from Feature 230 for radiocarbon dating.



Photo 32. Feature 230, plan view.



Photo 33. Feature 230, profile facing south.

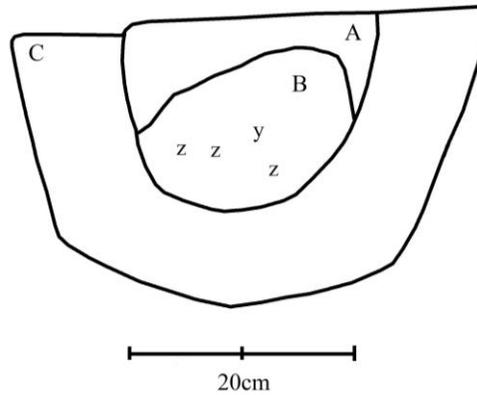


Figure 15. Feature 230, profile facing south.

- A = Feature 230 fill (10YR 3/2 very dark grayish brown silt loam)
- B = Feature 230 fill (10YR 3/2 very dark grayish brown silt loam rich with charcoal and burnt earth)
- C = Subsoil (10YR 4/4 dark yellowish brown clay loam)



Photo 34. Feature 231.

Feature 231 was located in Unit BM (Figure 3). It was not excavated because it extends into the eastern wall of the larger excavation block. It appears to be a small pit feature (Photo 34). Its age is unknown.



Photo 35. Feature 232.

Feature 232 was located in Unit CP (Figure 7). It was not excavated because it extends into the eastern wall of the smaller excavation block. It is almost certainly a small pit feature (Photo 35). Several cordmarked sherds and a bone fragment were collected from the surface of Feature 232. Abundant charcoal was also visible at the surface of Feature 232, but none was collected.

Features 233-237 were possible posts, ca. 20 cm in diameter, located in the northeast corner of the floor of Feature 212 (Figure 3, Photo 36). Feature 233 was a 10YR 3/3 dark brown silty loam with charcoal flecking; it was approximately 35 cm deep with vertical walls (Figure 16, Photo 37). It contained several sherds and a piece of chert (see Tables 4 and 5). Features 234 and 235 were bisected but found to have no depth; it is assumed that these were not cultural features. Features 236 and 237 appeared to be superimposed by the southernmost wall of Feature 212's northern wall trenches. Their profiles as observed in that wall trench were drawn and photographed (Figure 17, Photo 38). Based on these profiles, Feature 236 (at 20 cm in diameter and 18 cm deep) was somewhat larger than Feature 237 (at 17 cm in diameter and 11 cm deep). Both were light in color; Feature 236 was a 10YR 3/3 dark brown silty loam and Feature 237 was a 10YR 4/3 brown silty loam. One difference observed between them was that Feature 236 contained flecks of orange while Feature 237 contained flecks of red; presumably, these were fragments of burnt earth. The base of a Madison point was found in the flotation sample for Feature 236. No other cultural materials were observed in Features 236 and 237 (see Tables 4 and 5).



Photo 36. Features 226 and 233-237, plan view.

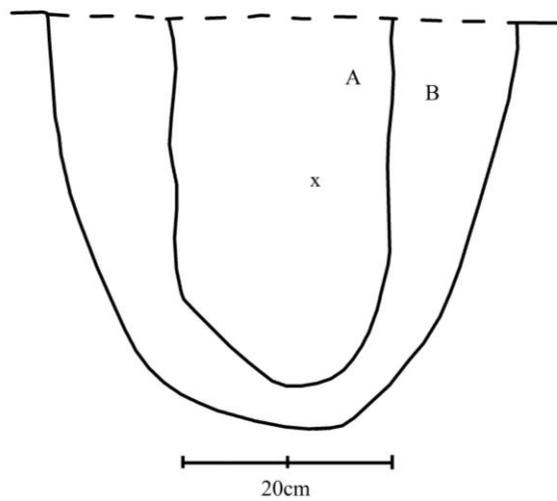


Figure 16. Feature 233, profile facing north.

- A = Feature 233 fill (10YR 3/3 dark brown silty loam with charcoal flecking)
- B = Subsoil (10YR 3/4 dark yellowish brown clay loam)
- x = Charcoal



Photo 37. Feature 233, profile facing north.



Photo 37. Features 236 and 237, profile facing south.

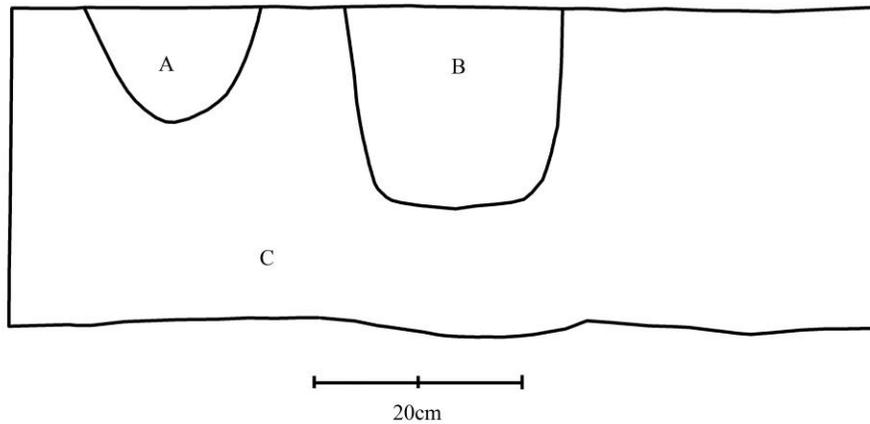


Figure 17. Features 237 and 237, profile facing south.

- A = Feature 237 fill (10YR 4/3 brown silty loam with flecks of red)
- B = Feature 236 fill (10YR 3/3 dark brown silty loam with flecks of orange)
- C = Subsoil (10YR 4/4 dark yellowish brown clay loam)

Located in Units CH and CK, Feature 238 was a circular pit feature observed in the west half of the floor of Feature 212. Feature 238 was similar to Feature 227 in that it was deeper than expected given its small size in plan view, its fill was homogeneous, and its artifact density was relatively low (see Tables 4 and 5; Photos 38-39; Figure 18). Feature 227 was oval in plan view, approximately 50 by 40 cm, and 50 cm deep with vertical walls. It contained one stratum, a 10YR 3/2 brown sandy loam, although this was dissected by several lamellae. Feature 238 contained sherds, chert, FCR, burnt clay, and more bone than any other feature excavated in 2014. Most if not all bone observed in Feature 238 was calcined. One rim sherd collected exhibited nodes, suggesting a Middle Woodland age for Feature 238.

Features 239-243 were investigated as possible posts. Feature 239 was located northeast of Feature 220 in Units CA and CM. It was approximately 20 cm in diameter and 20 cm deep. Its walls were basically vertical, with an apparent disturbance at the bottom (Figure 19, Photo 40). Feature 240 was located in Unit BP. It was approximately 10 cm in diameter and 7 cm deep. Features 241-243 were located in Units CE and BH; they were approximately 5 cm in diameter and 5 cm deep (Figure 19, Photo 41). Features 239-243 all exhibited profiles which could indicate that they were posts (Figure 20). Other soil anomalies investigated as possible posts were determined less likely to be posts, because the anomalies had no depth or exhibited profiles suggestive of bioturbation. Other than charcoal flecking in Feature 240 and burnt earth in Feature 243, no cultural materials were observed in Features 239-243.



Photo 38. Feature 238, plan view.



Photo 39. Feature 238, profile facing south.

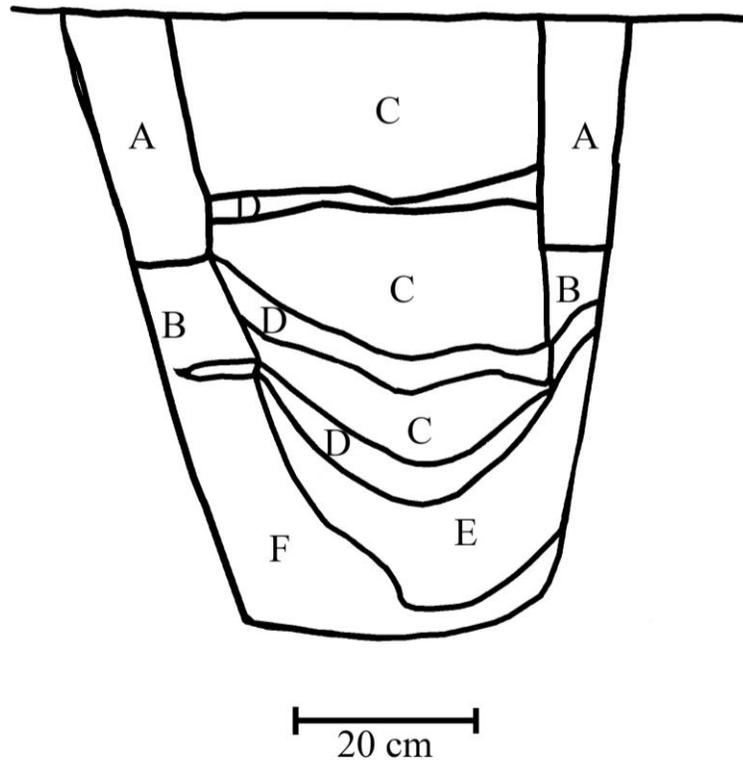


Figure 18. Figure 238, profile facing south.

- A = Subsoil (10YR 3/4 dark yellowish brown clay loam)
- B = Subsoil (10YR 3/4 dark yellowish brown clay loam)
- C = Feature 238 fill (10YR 3/2 very dark grayish brown sandy loam)
- D = Lamellae (10YR 3/3 dark brown sandy loam)
- E = Subsoil (10YR 3/4 dark yellowish brown sandy clay loam)
- F = Subsoil (10YR 4/4 dark yellowish brown loamy sand)



Photo 40. Feature 239, profile facing west.

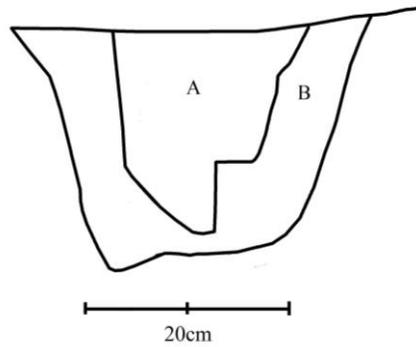


Figure 19. Feature 239, profile facing west.

- A = Feature 239 fill (10YR 4/2 dark brown clay loam)
- B = Subsoil (10YR 4/6 dark yellow brown clay loam)

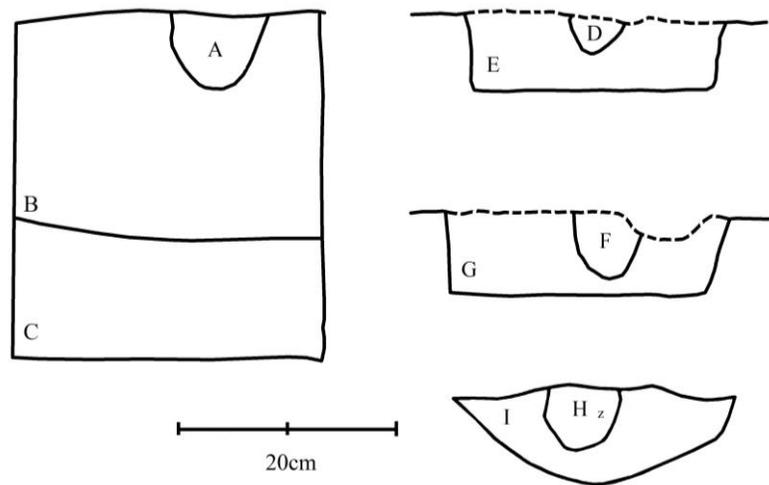


Figure 20. Features 240-243, profiles.

- A = Feature 240 fill (10YR 3/2 very dark grayish brown silty loam)
- B = Subsoil (10YR 4/4 dark yellowish brown clay loam)
- C = Subsoil (10YR 5/4 yellowish brown sandy loam)
- D = Feature 241 fill (10YR 3/4 dark yellowish brown silty loam)
- E = Subsoil (10YR 4/4 dark yellowish brown silty clay loam)
- F = Feature 242 fill (10YR 3/4 dark yellowish brown silty loam)
- G = Subsoil (10YR 4/4 dark yellowish brown silty loam)
- H = Feature 243 fill (10YR 3/2 very dark grayish brown silty loam)
- I = Subsoil (10YR 3/4 dark yellowish brown silty loam)
- z = burnt earth



Photo 41. Feature 240, profile facing west.

CONCLUSION

The primary research objective of the SIUE archaeology field school at the Gehring Site (11MS99) under my direction has been to explore the Middle Woodland occupation at the southern end of the site (Holt 2013; Holt and Belknap 2010; Holt et al. 2010). Although analysis of artifacts and flotation samples is not yet complete, we have clearly gathered data that will help us to achieve this goal. A cluster of Middle Woodland features has been found, including pit Features 102, 203, and 204; and possibly pit Features 104, 220, and 224 (see Figure 7). The presence of Havana pottery and animal bones in these features might provide evidence of everyday subsistence activities, but the Hopewell pottery in Features 102 and 203, and figurine and mica in Feature 203, might suggest that ritual activities also took place at the site. Additional support for this interpretation is found in two flakes of obsidian found in the plowzone and on the surface at the southern end of the site. Northeast of this Middle Woodland feature cluster, several pit features (Features 227, 229, and 238) found on the floor of a Mississippian wall trench structure (Feature 212) might also date to the Middle Woodland period (Figure 3).

The presence of mud dauber nests in Feature 203 suggests that there were Middle Woodland structures at the site. Three relatively large posts (ca. 20 cm in diameter), Features 103, 208, and 221, have been identified in the vicinity of these Middle Woodland pit features (Figure 7), and could be part of a Middle Woodland post structure. A relatively large possible post, Feature 225, was located northeast of these and could align with any two but probably not all three of them. Also located in the vicinity of these Middle Woodland features, Feature 205 was a semi-circle of small posts (ca. 5 cm in diameter). If these were part of a small circular post structure, we might estimate that this structure would have been approximately 3 m in diameter. This would be smaller than a typical Middle Woodland structure (e.g., Fortier et al. 1989), and the principle of superposition also suggests that Feature 205 predates Features 103, 203, and 204. The structure could, however, date to earlier in the Middle Woodland period. As Fortier (1993) notes, no early Middle Woodland structures have been identified in the American Bottom. Alternatively, perhaps Feature 205 dates to the Late Archaic period, given that it lies some 10 m from Features 210 and 211 (see Holt 2013), which possibly date to the Late Archaic period.

A cluster of probable Mississippian features has also been identified at the southern end of the site (Figure 3). These include a wall trench structure (Feature 212) and three pits (Features 206, 207, and 209). Unfortunately, these Mississippian features are heavily truncated by plowing and erosion. It is believed that 4-5 feet of topsoil has eroded from the south end of the Gehring site since it was deep-plowed for horseradish cultivation in the 1970s (see Holt and Belknap 2010). The shallow depth of the Mississippian features supplies further evidence in support of this argument; only the very bottom of these features remains intact. We can make a plan view of Mississippian activities in this area, but unfortunately, most artifacts associated with those activities have washed away. It is clear, based on the wall trench structure we encountered (Features 212) and another identified by Vogel in the central part of the site (Vogel and Clemmons 2011), that Mississippian occupants lived here on a long term basis. Mississippian people also died here, as indicated by the Mississippian burial found in the central part of the site during the 2012 excavation (Vogel 2012). However, the density of Mississippian occupation does not appear to have been great; these structures probably represent farmsteads rather than a Mississippian village.

Several pit features were identified on the floor of Feature 212, but most of these (Features 227, 229, and 238) seem to be Middle Woodland in age. The age of pit Feature 228,

also found on the floor of Feature 212, is unknown. A number of possible posts were found on the floor in the east half of Feature 212. One of these, Feature 230, contained a significant quantity of charred maize, so it is probably also Mississippian in age. Another, Feature 236, contained the base of a Madison point, so it might also be Mississippian in age. The age of the others (Features 226, 233, and 237) is less certain because they contained no diagnostic cultural materials.

Finally, the age of Features 210 and 211 is less certain, but these are possibly Late Archaic features (see Holt 2013). The evidence from SIUE excavations at 11MS99, as well as data collected by Munson and Harn (1971), indicates that the site was used repeatedly throughout the millennia. Its location afforded residents access to floodplain and upland resources, forest and prairie resources. The proximity of Cahokia Creek gave easy access to the Mississippi River. Our continuing analysis of the artifacts, plant remains, and animal remains collected will give us a better understanding of the dynamic role that 11MS99 played in the social landscape of the American Bottom through time.

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