

INTERSITE AND INTRASITE ANALYSIS OF MISSISSIPPIAN SITES OF THE NORTHERN
HINTERLANDS

by

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INTERSITE AND INTRASITE ANALYSIS OF MISSISSIPPIAN SITES IN THE NORTHERN HINTERLANDS

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Over the past one hundred and fifty years scholars interested in the past have pondered over the settlements of Mississippian peoples throughout the Midwestern United States. Many excavations and studies have been undertaken in an attempt to understand the past cultures and life ways of these people. It is the goal of this paper to examine and compare several of these sites in the hinterlands of Mississippian settlement in the upper Midwest. Furthermore, these sites will also be compared to Mississippian site in the Mississippian heartland. This will be done using several distinctive characteristics of Mississippian culture: housing structure, site structure, and ceramics. This study will analyze each of these attributes for three sites to determine how similar and different these sites were to one another in this region of the Mississippian world. The three hinterland sites used will also then be compared to a core Mississippian site to see how they related to core Mississippian sites as well.

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INTRODUCTION

Mississippian culture flourished across much of the Midwestern and southeastern United States from A.D. 1000-1600 (Pauketat and Emerson 1997). There are several characteristics that make up what archaeologists define as Mississippian culture. Mississippian cultures represented a series of cultural innovations that began in A.D. 700 and were fully developed 200 years later in A.D. 900. Additionally, Mississippian societies constructed planned towns and ceremonial centers. Settlement hierarchies were also established within and between these towns and ceremonial centers. Mississippian religious systems put heavy emphasis on interaction between the human and the spirit world. Furthermore, it had a rich religious iconography expressed in copper, ceramics, stone, and marine shell. Mississippian societies also practiced extensive long-distance trade and reached their cultural peak between A.D. 1200 and 1500 (Emerson 1991a:222). Intensive maize agriculture and the construction of monumental architecture were two other notable features of Mississippian culture. Of the entire prehistoric Native American mound building cultures, the Mississippians built the largest and most monumental of the mounds. The primary type of mounds that Mississippian culture is known for are the large pyramid shaped platform mounds that are believed to have served as temples and the residences of elites (Schroedl 1998).

The largest Mississippian settlement is represented by the site of Cahokia near the present day city of St. Louis. Cahokia has been defined as the core Mississippian culture due to its massive size and influence over the region. This is further stated by Pauketat and Emerson “Cahokia, more than any of its contemporary ‘Mississippian’ neighbors was a vortex of native

social, political, economic, and religious activity” (1997:1). Although Cahokia dominated the central Mississippi river valley as the largest and most dominant community in the region, there were several other large Mississippian sites scattered throughout the southeastern United States each representing their own chiefdom level polity (Pauketat and Emerson 1997). However, another, albeit smaller, area of Mississippian influence existed to the north of Cahokia in what archaeologists call the northern periphery or hinterlands of the Mississippian world.

It is in this northern realm of the Mississippian world in which I plan to conduct my study of Mississippian culture. This study will focus on the comparison of several northern periphery Mississippian sites to each other and to Cahokia. For this study it is necessary to investigate several sites from this northern realm. Three sites that have been selected are those of the Apple River Mississippian cultural manifestation located in northwest Illinois, the site of Fred Edwards just to the north of the Apple River culture in Grant County of southwestern Wisconsin, and of the Aztalan site located in south eastern Wisconsin between Madison and Milwaukee.

The Apple River culture consists of a several sites; however, it is the Mills Village and the Lundy site respectively that the sites discussed in this study. There are several views as to what the Apple River culture actually represents. It has been seen as the mixing of proto-Oneota groups with those of Mississippians moving to the north. Another hypothesis is that it was the development of a Middle Mississippian group into an Upper Mississippian group independently in the Apple River valley. Still others have thought it was an Oneota society influenced by southern Mississippian culture. Recent excavations at the Lundy site, however, have revealed that Apple River culture is not simply a hybrid, but is rather part of the larger Mississippian pattern in the Midwest (Emerson 1991b).

The Fred Edwards site is a different form of site than that represented by the sites of the Apple River culture and Aztalan. The primary component at the site is that of a Late Woodland occupation with a wide range of Mississippian items. These items primarily consist of what would be considered “exotic” and made from, or originated from, non-local resources. This wide diversity of non-local items mixed with Late Woodland material is characteristic of Fred Edwards and to a lesser degree of Aztalan though not found at Apple River. However, this mixture of material helps support the hypothesis that the people occupying Fred Edwards were involved in a long distance exchange network with Cahokia (Finney and Stoltman 1991).

The site of Aztalan has been given much attention throughout the history of archaeological investigation in Wisconsin. Many studies have been conducted on it in the past and interpretations vary as to its function in the greater Mississippian world. Past research conducted included studies by Samuel A. Barrett (1933) and David A. Baerreis along with Warren Wittry (1958) in the early and mid-1900s. More recent research has been conducted by Robert Birmingham, Lynne Goldstein, and John Richards (Birmingham and Goldstein 2005; Goldstein 1991; Goldstein and Richards 1991; Richards 1992). Many interpretations for the site of Aztalan have been put forth. Some believe that it was a Mississippian outpost directly tied to Cahokia while others argue it was a mixture of both Late Woodland and Mississippian groups. Recent research, using strontium-isotope analysis on human remains from Aztalan, preliminarily indicates that many of the individuals present were not from the Aztalan locality but may have been from the Cahokia region (Price et.al. 2007).

A final site that will be examined in this study is that of the Interpretive Center Tract II (ICT-II) located in the Cahokia heartland. The ICT-II tract is a habitation site with numerous Mississippian households representing several periods of the Mississippian occupation at

Cahokia. The site of Cahokia as a whole will serve as reference for examining the overall Mississippian attributes of the hinterland sites in the study. ICT-II will serve as a more in depth comparison between a core site located within Cahokia's boundaries and a hinterland site located hundreds of kilometers from the Cahokia center.

All of these sites and cultural areas have been extensively studied in the past and related back to the core Mississippian culture at Cahokia in some form or another. What this study hopes to accomplish is the investigation into each of these sites so that I can better see how the culture at these sites relate to each other, given that they are all located within fairly close proximity to each other, as well as how they relate to Cahokia Mississippian culture. Additionally, from this study I hope to see how many of the characteristics of Mississippian society at Cahokia, and to what degree, are manifested at these disparate northern sites. As can be seen from the above information interpretations vary widely as to where these sites fit into the Mississippian cultural world. It is my hope that a comparative study of each of them, through settlement patterns, housing structure, and ceramic analysis will help others to better understand how these sites relate to each other and other areas of the Mississippian world.

BACKGROUND AND CONTEXT

Mississippian Culture Overview

The origins of what is known by Midwestern archaeologists as Mississippian culture lie in the agricultural revolution brought about by the introduction of corn agriculture into the Midwestern and eastern United States. After A.D. 800 corn agriculture was utilized more intensively in the American Bottom, large and fertile bottom-lands around the Mississippi River near the present

day city of East St. Louis, and subsequent peoples and cultures in the region developed into the Mississippian culture and constructed the massive Native American city known as Cahokia. Cahokia is considered the paramount model of Mississippian culture and is referred to as the core of Mississippian culture (Birmingham and Goldstein 2005).

Mississippian culture at Cahokia is marked by several periods and phases at Cahokia and the surrounding area. The first of two periods is that of the Emergent Mississippian period which dates from A.D. 925-1050. The second period of Core Mississippian culture is known as the Mississippian Period; this is the period that contains the phase that this research paper is most interested in. The first phase of the Mississippian Period in the American Bottom is that of the Lohmann Phase, which dates to between A.D. 1050-1100 (Trubitt 2000). It is during the Lohmann Phase that the first Mississippian town and mound centers appear in the American Bottom (Mehrer and Collins 1995). The next phase of the Mississippian Period is that of the Stirling Phase which dates to between A.D. 1100-1200, this is the phase that this research paper is most interested in for a variety of reasons (Trubitt 2000:Figure1). The Stirling Phase of Cahokia represents the absolute crest of Mississippian culture in the American Bottom and the Northern Hinterlands. In the American Bottom the regional settlement hierarchy reached its peak of complexity (Mehrer and Collins 1995).

During the Stirling phase the greatest Mississippian expansion occurred into the Northern Periphery areas and the sites used in this study, Aztalan and Fred Edwards in Wisconsin, appeared (Mehrer and Collins 1995). For the Apple River Mississippian in northwest Illinois it was also the period of their greatest extent and culture (Emerson 1991b).

The Moorehead and Sand Prairie Mississippian phases came next. The Moorehead dates from roughly A.D. 1200-1275 and the Sand Prairie dates from A.D. 1275-1350 (Trubitt

2000:Figure 1). Both of these phases saw a large decrease in population and settlement in the American Bottom Mississippian culture as well as that of the Northern Hinterlands (Mehrer and Collins 1995).

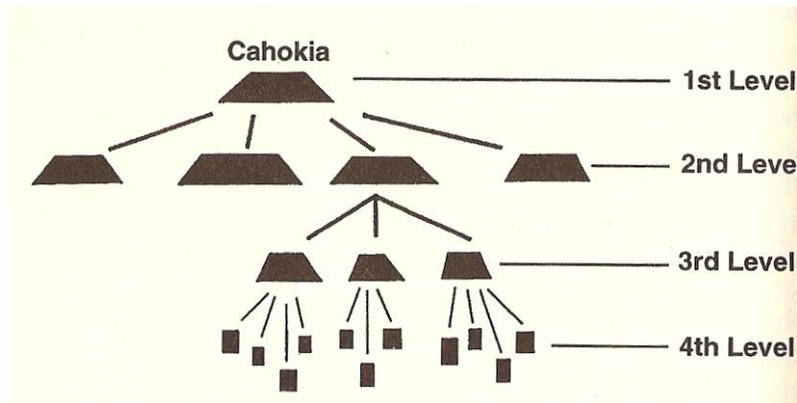


Figure 1. The tiers of Core Mississippian site stratification (Emerson 1997:72).

Cultural complexity in the American Bottom is shown through the three part ranking of Mississippian sites. Cahokia is the first tier of sites with over 120 mounds and population in the tens of thousands. Second rank sites are considered those that are multi-mound centers that served as immediate subsidiaries to Cahokia. Third rank sites are those that had one mound located at the site. Finally, there is the fourth rank which consisted of scattered nodal centers, either civic or ritual in nature that served smaller villages and dispersed farmsteads in the region. An illustration of this site hierarchy is displayed in Figure 1.

During the Mississippian Period there were several aspects of Mississippian culture that distinguished it from previous and contemporary cultures. The first of these is large pyramidal platform mounds in, at least, the larger population and ceremonial centers. These mounds usually served as the location of the residences of paramount chiefs as well as temples and mortuary facilities. Additionally, Mississippian towns typically were laid out around a central

plaza used for various ritual and public functions. The entirety of many Mississippian settlements were usually surrounded by some type of fortification such as that of a stockade wall with defensive bastion positions built in and gated areas that only permitted certain people to enter. In many ways it appears as if the structure of Mississippian towns reflected the social structure and belief systems of their peoples (Birmingham and Goldstein 2005:53). An example of the standard layout of a Mississippian town is shown in Figure 2.

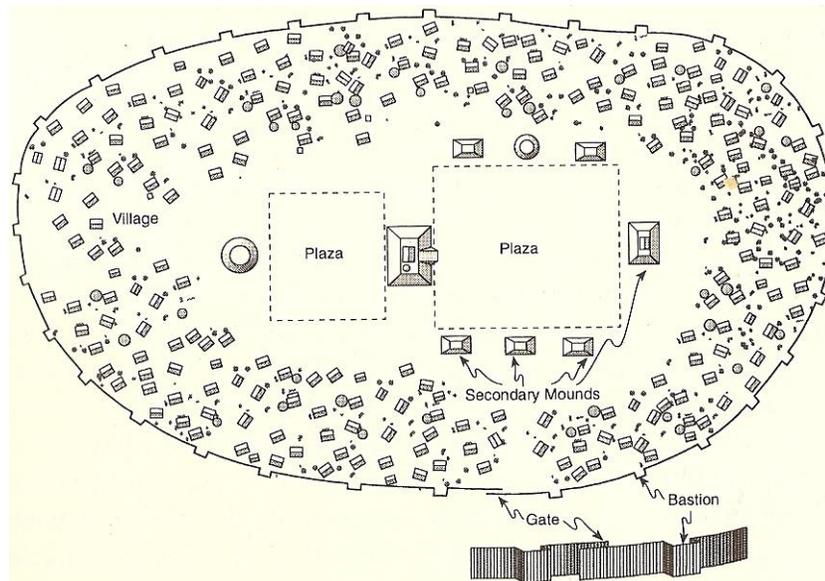


Figure 2. An example of standard Mississippian site layout (Lewis et. al. 1998:7)

Mississippian societies were once thought to have been state-level societies with one or several of these state-level societies ruling in the Midwestern and eastern United States. It is now believed by scholars that Mississippian sociopolitical structure was actually that of a complex chiefdom where rule was hierarchical and based upon heredity. Each Mississippian site is believed to have been the center of a chiefdom with some chiefs being answerable to others and the largest sites such as Cahokia having several levels of subsidiary site serving them (Birmingham and Goldstein 2005: 53-54).

As with many of the more complex societies around the world agriculture served as the base of the Mississippian economy. Mississippian farmers grew maize in large amounts, in addition to several other well-known Native American crops, including squash, pumpkins, maygrass, and sunflowers. Additionally, Mississippians relied heavily on deer hunting and trading in both hides and meat. Backwater fish and game species made up a good portion of Mississippian diet along with gathered nuts and berries.

Another major aspect of society for these people was the trade in exotic materials such as stone and marine shell. These items were used to create specialized crafts for elites and ceremonial purposes, as well as some distribution to common people for everyday use. Mississippian ceramics are also distinctive, Mississippian people made a wide assortment of vessel forms for everyday life and activities, including Pots, pans, bowls, plates, beakers, bottles, and jars were all vessel forms created by Mississippian people. These ceramics were typically tempered with shell, grog, grit, or a combination of tempers. Some of the more finely crafted forms were associated with ceremonies and ritual (Birmingham and Goldstein 2005:85-87).

The city of Cahokia itself covered six square miles or roughly nine and a half square kilometers of Mississippi River floodplain and had an estimated population of 10,000-15,000 inhabitants at its height in A.D. 1150. A diagram of what the city may have looked like at its height is provided in Figure 3. Cahokia has many distinctive features that define it as the paramount Mississippian center. The city was divided into several precincts that defined space for the everyday inhabitants of the area. Residential areas were separated from ceremonial areas, as well as areas that were meant for use by elites. At the center of the site of Cahokia there was a section that was walled off from other areas by a massive stockade wall. It was constructed at the height of Mississippian culture during the Stirling phase. Inside of the stockade is what

scholars have dubbed the central Plaza. Located within this plaza area were several Mississippian features that were important in the ceremonial and elite aspects of their culture. These included several distinctive platform mounds, the type of mound most characteristic of Mississippian sites. The largest platform mound was Monks Mound. This mound is thought to have been the residence of the paramount chiefs of Cahokia and at an area of sixteen acres, is the largest earthen construction in all of North America (Birmingham and Goldstein 2005:21-23).



Figure 3. Reconstruction of Cahokia at its cultural peak (digitalhistory.uh.edu).

Mississippian Sites Overview

The northern periphery of the Mississippian world encompasses large sections of the states of Illinois, Iowa, Wisconsin and Minnesota. Within this area there are numerous sites with Mississippian cultural affiliations, whether it is in site structure, ceramics, or other remains. The sites of Aztalan, Fred Edwards, and the Lundy site, of the Apple River culture, were chosen as periphery sites for comparison in this study. Figure 4 shows where all of these sites are located relative to each other and to Cahokia in the region. The relationship between periphery sites and

Cahokia has been speculated upon for decades and still remains controversial to this day. However, it is certain that many of these sites were Mississippian and had ties to the American bottom and Cahokia in one form or another (Emerson 2007; Finney 1993; Goldstein 1991).

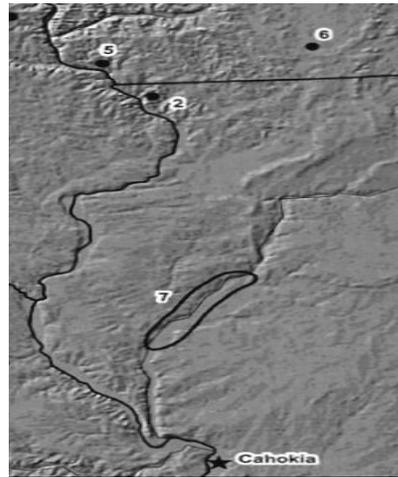


Figure 4. Relative position of Study sites to each other and Cahokia; Aztalan 6; Fred Edwards 5; Apple River 2; (Emerson 2007: figure 1.1).

Aztalan is the largest and best known Mississippian site located in the state of Wisconsin. As has been previously stated, this site is located in the southeastern part of the state near Lake Mills, between the present day cities of Madison and Milwaukee. One of the initial researchers at the Aztalan site was S.A. Barrett of the Milwaukee Public Museum in 1933. Aztalan was occupied by Mississippian related peoples between A.D. 1100-1200 which is concurrent with the Stirling Phase cultural peak and expansion of Mississippian culture at Cahokia. Prior to this, Aztalan had been occupied by Late Woodland people. During the Mississippian occupation of Aztalan the village was separated into three separate and distinct precincts the residential area, the public plaza, and the elite area, which was a area of the village that was separated from the plaza and residential areas by a stockade line similar to the one that surrounded the site overall (Birmingham and Goldstein 2005:53-58).

The residential precinct at Aztalan contained many tightly packed houses each with approximately 400 square feet of area. Each structure within the residential precinct is believed, by scholars, to have been a single family household unit and the daily activities are presumed to have taken place outside of them for the most part. An estimated population for the village of Aztalan at its peak of Mississippian occupation is thought to have been between 300 and 350 people (Birmingham and Goldstein 2005). In addition to the residential structures, a mound, designated the Northeast Platform Mound, was also built within the stockade. This mound is thought to have been a council house or a temple mound located within the community. The plaza section of the site was a large open space roughly located between the residential area and the elite precinct. The elite precinct at Aztalan had several mounds constructed within its boundaries. The main mound was that of the Southwest Platform Mound, believed to have been the residence of the leader of the Aztalan community. The other mound located within the elite precinct was that of the Northwest Platform Mound which appears to have been a mortuary mound and had several burials located within it (Birmingham and Goldstein 2005: 60-74). For an illustration of what the site of Aztalan may have looked like at its peak see Figure 5.

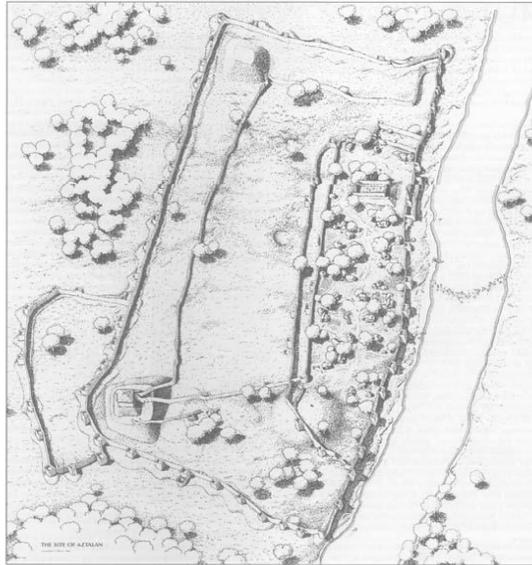


Figure 5. Reconstruction of Aztalan (digicoll.library.wisc.edu)

As with other Mississippian sites, Aztalan has a very Mississippian style of subsistence as revealed by the archaeological record. The occupants of the site ate primarily white-tailed deer as well as corn, cultivated in nearby fields, and fish, caught from the crawfish river. However, over time it appears that the diet of the people at Aztalan shifted from deer to more reliance on protein caught from the adjacent river such as fish and mussels (Birmingham and Goldstein 2005: 88).

Despite these many similarities to overall core Mississippian culture, there are also many differences between the site of Aztalan and Mississippian culture at Cahokia. Aztalan stands out as an apparent Mississippian island in the region of southeast Wisconsin, as there are no other Middle Mississippian sites of the same magnitude in Wisconsin. Several possible reasons have been suggested as to why Aztalan was located at this particular site. It may have been a trade center to with access to areas to the north via the Crawfish River and areas to the south via the Rock River. Another thought is that the site of Aztalan makes it uniquely placed to take advantage of numerous resources offered by its location (Goldstein 1991:216). In another article

written by Lynne Goldstein and John D. Richards, they identify several attributes that made the location of Aztalan ideal for occupation the Crawfish River can be used as a means of transportation, easy access to all vegetation and resource zones of the surrounding area, well drained soils, less freezing on the Crawfish than the Rock River, and it may have been easier to exploit the area around the site for intensive maize agriculture (1991:206).

There are a multitude of human remains that have been found with the Aztalan site. Douglas Price and other researchers have identified three distinctive burial contexts with the site of Aztalan. The first category they identify is that of articulated individuals buried in their own individual graves. The second category is articulated burials found in mounds such as those found in the Northwestern Platform mound. The third burial context at Aztalan is that of individual bones that are found unarticulated and often fragmentary in both midden and feature fill (Price et.al. 2007:529)

More recent research into the origins of some of Aztalan's inhabitants has been achieved using strontium-isotope analysis of bones and teeth uncovered from Aztalan. This method can be used to track a past humans movements because strontium isotope values have different ranges within different geological formations. These isotopes make their way into human bones and teeth through the local food chain. Simply put this means that the strontium isotope composition of human remains matches that of the individuals diet and thus reflects the composition of the local geology therefore where an individual is born and where they die is reflected in their strontium isotope ratios and what geological formations they match up with (Price et. al. 2007:527).

The research has documented that at least a certain percentage of Aztalan's inhabitants came from areas outside of the Aztalan region. The strontium-isotope levels present in the bones

and teeth of some individuals appear to tentatively match up with those typical of burials in the American Bottom. However, it is unclear if these individuals came from the area immediately surrounding Cahokia or elsewhere in the American Bottom that may have had similar strontium levels. What this does indicate is the fact that, at Aztalan at least, there were some non-local individuals who came from some area near the American bottom (Price et.al 2007). There are several lines of evidence that may indicate that these non-local individuals were at least somewhat important within the community as they had distinctive burial contexts. Three of the individuals were found in the Northwest Platform mound crematorium, while the other two were found in their own individual graves: features 30 and 39. (Price et. al. 2007:535).

The Fred Edwards site is another northern periphery site with Mississippian cultural affiliations located in Wisconsin. However, unlike Aztalan Fred Edwards is not nearly as large and has no associated Mississippian style platform mounds. This site is located in southwestern Wisconsin in Grant County in the Grant River valley a short distance upstream from where it joins the Mississippi River. As with Aztalan, Fred Edwards dates to the Stirling Phase cultural occupation at the American Bottom Mississippian sites. Fred Finney and James B. Stoltman have characterized the main archaeological component at the site as being Late Woodland with large amounts of Mississippian culture contact. This cultural contact primarily manifests itself in the form of Mississippian style ceramics and trade in exotic materials (Finney and Stoltman 1991:229).

The Fred Edwards site is that of a palisaded village site with affiliations to several different cultures of the region. Ceramics at the site are Late Woodland, Mississippian, and Late Woodland/ Mississippian hybrids. A majority of the excavations that have occurred at this site were in features that were primarily associated with household clusters. The households at Fred

Edwards vary somewhat in size with some perhaps serving as the house of the village head and others as sweat lodges. Additionally, it appears as if the houses are loosely organized around what is called, by researchers, a plaza area. The majority of past research at the site was conducted by Fred Finney in his dissertation on Aztalan and its relationship to core Mississippian culture (1993). An illustration of the layout of the Fred Edwards site is shown in Figure 6.

Another aspect of the Fred Edwards site that is of note is work that was done on specific types of Mississippian style ceramic vessels and the implications that these analyses have. Thin section analysis was conducted on several Ramey Incised, Powell Plain, and Cahokia Red Filmed vessels all of these previously mentioned types are distinctive Mississippian types. What the thin section analysis uncovered is that the several of these vessels were made from clays of non-local origin while others were of local origin. This means that these items were traded in from somewhere else. Additionally, several of the thin sectioned vessels also had similar results pertaining to their paste meaning that they had a common point of origin (Finney and Stoltman 1991: 243).

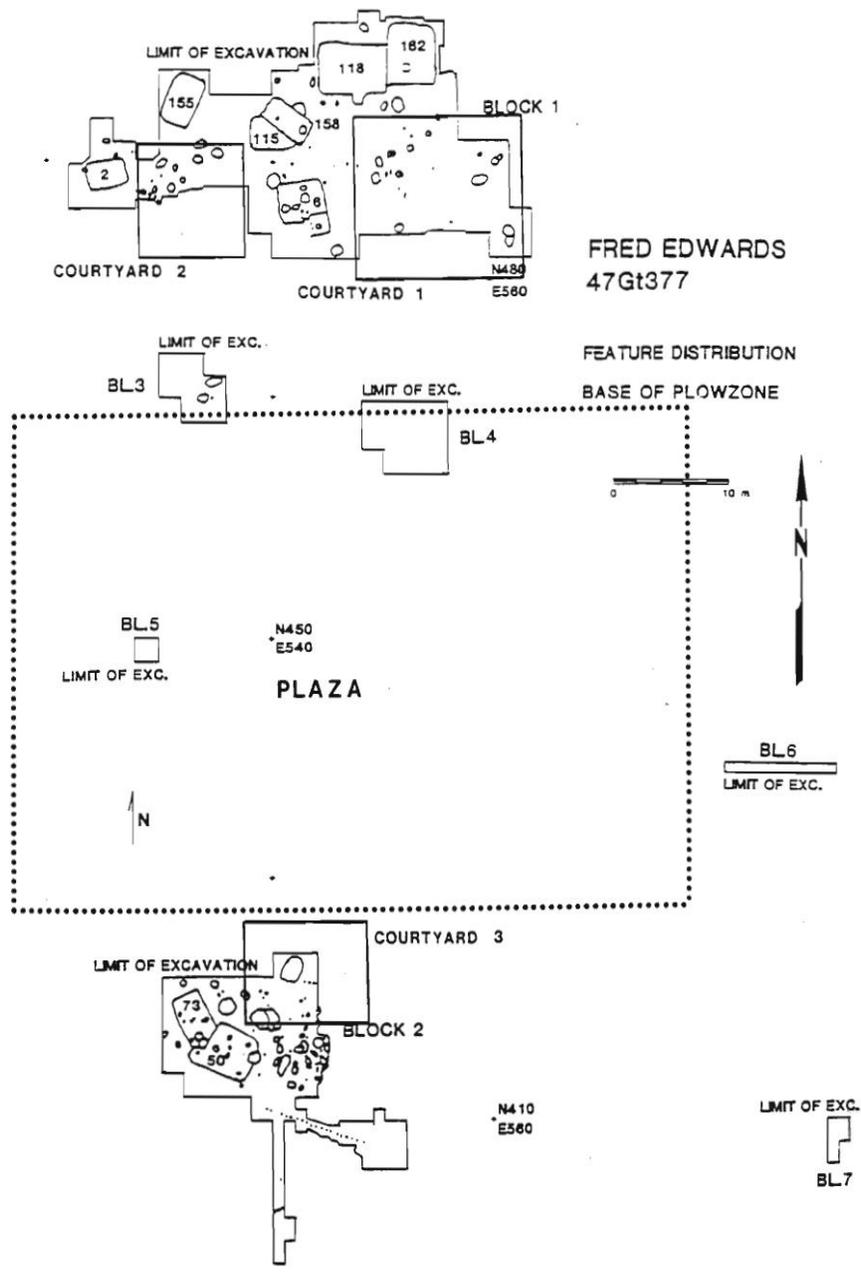


Figure 6. Site Map of Fred Edwards (Finney 1993:443).

Lundy is the third Northern Periphery site that is analyzed. It is located within the Apple River cultural focus of Mississippian culture. The Apple River valley, after which this culture is named, is located in northwest Illinois near the border with Wisconsin. Unlike the Fred Edwards and Aztalan sites, however, Lundy is part of a larger group of sites of contemporary age that share Mississippian cultural affinities. Lundy and other Apple River cultural sites were established in the Bennett Phase of Apple River Culture which dates from A.D. 1050-1200 and is roughly contemporary with the Stirling Phase at Cahokia as well as the occupations at both Aztalan and the Fred Edwards sites (Emerson 1991b).

There has been much past debate as to the nature of the Apple River Culture and what it is a manifestation of in the archaeological record. Recent research has shown that the Apple River Culture was in fact a valid manifestation of Mississippian culture and shared similar characteristics to other Mississippian cultures in northern and central Illinois, as well as to Core Mississippian culture. During the Bennett Phase of Apple River Culture there was the appearance of large pyramid shaped earthen mounds, plazas, and typical Mississippian wall-trench housing structures at numerous sites. After recent research into the Apple River culture, it now seems clear that the Bennett Phase represents the initial Mississippian intrusion into the Apple River valley and that these initial Mississippians brought with them the whole array of Mississippian cultural characteristics(Emerson 1991b:176-177).

The Lundy site itself is rather small and has had fairly limited excavations undertaken at the site. However, the Mills Village Site is located a mere two kilometers southwest of the Lundy site, as shown in Figure 7. The Lundy site excavations have revealed at least one housing structure and a good quantity of ceramic materials. The overall site structure for the Lundy site remains dubious so not a lot can be said if the site had a Mississippian style plan to it. The Mills

Village Site, on the other hand, has a well known site structure that is highly Mississippian in nature as shown in Figure 8. The Lundy site may have been a part of an outlying farmstead site with the Mills Village site having been the primary mound site in the vicinity (Emerson 1991b:177).

The ICT-II site is a Mississippian residential site that is located in the American bottom directly outside of Cahokia's central precinct as shown in Figure 9. ICT-II has extensive remains from all phases of Mississippian occupation in the American Bottom at Cahokia including the Stirling phase when the site underwent drastic restructuring along with the entirety of the site of Cahokia. Most of the research done on the site structure of the ICT-II site was that done by James Collins in 1990. During the Stirling Phase occupation at the ICT-II site, there was a reorientation of the domestic structures at the site around a central plaza and a small mound that may have served as the residence of the community leader. This coincides with the central precinct at the overall site of Cahokia becoming palisaded off from the rest of the city. In addition to this, the Stirling Phase occupation at ICT-II witnesses a rise in the amount of internal storage structures. Scholars view this as Mississippian society becoming more privatized at its cultural peak, especially in light of the fact that in the previous Lohmann Phase occupation there was far more communal storage in the ICT-II community (Mehrer and Collins 1995).

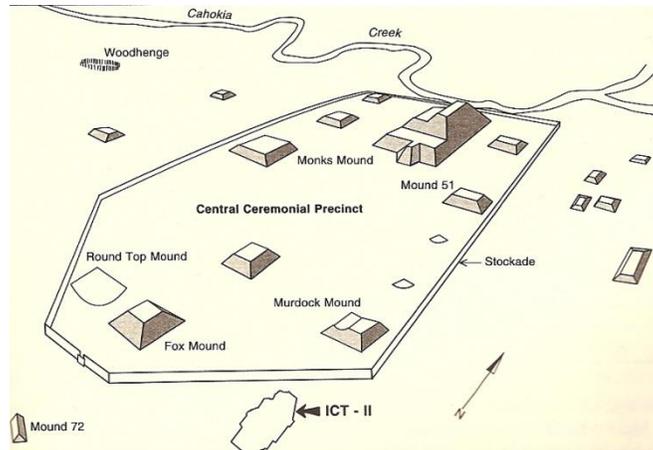


Figure 9. Location of ICT-II relative too Cahokia's central precinct (Mehrer and Collins 1995:35).

The ICT-II site is the site that will serve as the standard comparison for what is Core Mississippian culture with the Hinterland sites in this study. The domestic structures as well as the overall site structure of the ICT-II site, shown in Figure 10, during the Stirling Phase occupation will be the utilized in these comparisons to show the similarities and differences between these Hinterland Mississippian sites and a Core Mississippian site.

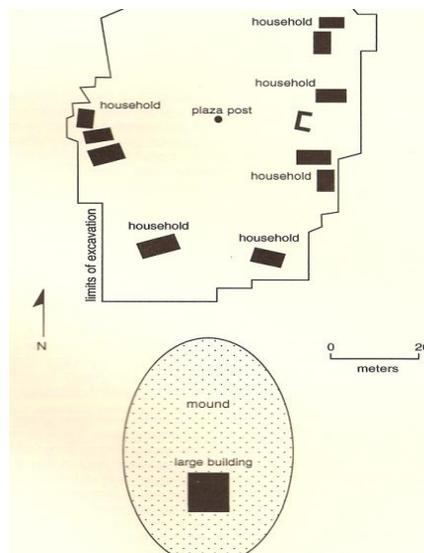


Figure 10. Site structure of ICT-II site at Cahokia (Mehrer and Collins 1995:46).

METHODS

The data that I used in a comparative study of northern periphery Mississippian sites, Fred Edwards, Lundy site (Apple River culture), and Aztalan, with that of each other and that of Cahokia Mississippian culture will be gathered from several books, articles, and site reports. There are three primary site reports that were used for data collection (Collins 1990; Emerson et.al 2007; Finney 1993). These site reports are on the ICT-II excavation at the Cahokia site, the Apple River Lundy site, and the Fred Edwards sites respectively. For the data on Aztalan this study relied upon several books (Barrett 1933; Birmingham and Goldstein 2005). In addition to this, a volume of the journal *Wisconsin Archaeologist* published in 1958 has also provided a wealth of data; several more recent articles on Aztalan (Goldstein 1991; Goldstein and Richards 2000; Richards 1992) also serve as sources. Furthermore, several other books and articles have been utilized to provide background information on Cahokia and other sites.

Several types of data from several different aspects of material culture found at each of the sites were collected for this analysis. Also, several methods are utilized for the comparison of the data from the sites. The first set of data analyzed is that of the site structure for each of the sites. For site structure there are several aspects that have been analyzed. The first of the aspects analyzed has to do with the residential domestic structures. For domestic structures a number of attributes for each of these have been studied. First, the study analyzes the construction method for household structures found at the sites. What is meant by construction method is whether or not the structures are wall trench or single post in their construction method. Wall trench construction method consists of the inhabitants digging a trench and then putting posts into the trench to serve as a wall. Single post construction method consists of the

inhabitants putting single posts into holes to create a walled structure (Emerson 1991b). Shape and average size of domestic structures will also be a valuable set of data for Intra-site analysis of these sites. This set of data is then compared to similar data for domestic structures found at the Mississippian Core site of Cahokia to determine how these structures are similar or different in their construction to Core Mississippian domestic structures.

Another telling aspect of site structure that is analyzed in this study is that of overall site structure. Mississippian societies practiced large amounts of stratification in site design and overall settlement patterns. Mississippian towns often followed a plan that is easily identifiable in a site's layout (Emerson 1991a). It is this plan that provides this study with its next set of data for intra-site analysis. The first, most notable, feature that has been analyzed is that of the presence or absence of pyramidal platform mounds and, if present, in what quantity and what size. The second aspect of stratified site planning that is analyzed is the presence or absence of other forms of public architecture in both type and quantity. The presence of a public plaza is another aspect that characterizes most Mississippian sites that has been searched for in each of these sites. The segregation of different precincts at Mississippian sites is also a notable feature seen at both Aztalan and Cahokia, in addition to this, Mississippian sites typically display some type of fortification in a settlements layout (Birmingham and Goldstein 2005:53-54). A final aspect of Mississippian settlement patterns analyzed is the presence of a settlement hierarchy in the region a site is located. Larger Mississippian sites usually have several tiers of smaller sites that act as subsidiary sites to the largest site in the region (Milner 1991:30-31). All of these data combined will aide in discerning whether or not these periphery settlements display large amounts of Mississippian attributes in their planning, in comparison to each other as well as to that of Cahokia. In addition to this, site stratification between an elite class and a lower class is

also discernible by the fact that many aspects of Mississippian site structure, such as the presence of pyramidal mounds, other public architecture, and the segregation of public and private spheres, have to do with the stratification between an elite and a lower class.

The next set of data analyzed is data having to do with the material culture left behind at each of these sites. The method employed by this study is the analysis of the form of ceramics found at each site. First, the different types of Late Woodland pottery found at each of the sites was found and then compared with each other to determine which types of Woodland ceramics each site had present during the Mississippian occupation and what this says about the Late Woodland occupants of a particular site. Late Woodland ceramics typically come in a single vessel form; being that of jars. Furthermore Late Woodland ceramic types are usually grit tempered and have cord impressed decorations. Mississippian ceramic types were also studied at each site to determine what types of Mississippian ceramics were present at each site to determine if there were any patterns present. Mississippian ceramics came in many different vessel forms including jars, bowls, seed jars, beakers, as well as various others. Furthermore, Mississippian ceramics used a variety of tempers including grit, grog, and shell tempering with shell tempering being the most prevalent. Two highly notable Mississippian ceramic types found at Cahokia and throughout the middle Mississippian world were Powell Plain and Ramey Incised.

The next analysis was conducted to find out the percentages of Mississippian versus non-Mississippian ceramics at each of the sites. A second aspect of the ceramic analysis entailed studying what different forms of ceramics were recovered at each site, by forms this means uses i.e. jars, bowls etc., this will also be done by calculating percentages of each category. The reason for this is that pertinent data are more easily attained through this method of analysis than

attempting to do a classification of Mississippian ceramics based upon temper or material. This is because Mississippian ceramics use a variety of tempers and materials to make ceramic vessels. From this it is possible to see how different ceramic forms differ from site to site and what implications that may have for site function and relations.

After all of the numbers for each of the above mentioned sites in the study are found they are then compared against each other to determine if there is any pattern to the similarities and the differences in these different hinterland sites; as well as if these differences are associated with varying degrees of sociopolitical stratification or site function. Furthermore, these sites will not only be compared to Cahokia Mississippian culture as a whole but also to a specific site excavated with the boundaries of Cahokia: that being the ICT-II tract. This was done to compare the data found for each of these periphery sites at a more specific level with a domestic site found at Cahokia. This is necessary to determine how the lives of Mississippian people on the periphery compared with those of Mississippian people in the Cahokia heartland.

DATA/DISCUSSION

Households/Site Structure

The first set of data that is used in this discussion is that on the structures that were located at the ICT-II tract (Table 1). This is essentially all of the data that was compiled on Stirling Phase Mississippian structures excavated at the site, and was taken from the site report done by Collins (1990). This site will serve as comparative data from a Core Mississippian site and its domestic structures with those of Mississippian sites located in the Periphery such as the three sites utilized in this study.

For the Stirling Phase occupation, Collins states that there are four subclasses of domestic structure at the ICT-II site. The first sub class is that of 5.1, which Collins defines as being those of the main housing structures at the ICT-II site. Since these are most likely the housing structures, they will serve as the prime comparison for what are defined, by researchers, as the housing structures at Hinterland sites. Additionally, Collins defines sub class 5.2 structures which are roughly the same design and construction method as 5.1 structures, but were not the main houses. Collins puts forth several possible uses for these structures: storage, men's huts, women's huts, and huts for newly married couples, presumably before they started their own main households (1990:71). Subclass 5.3 structures are those that are of similar construction method, however, they are square or almost square in shape instead of rectangular. These structures are not as relevant as they are primarily associated with Moorehead phase occupation of the site. The final sub class mentioned is that of subclass 5.4 which are again, wall-trench structures only instead of being rectangular they are of “unusual shape”, such as L-shaped or T-shaped (Collins 1990).

As was mentioned before it is the structure sub class 5.1 that is most pertinent to this study, as these are considered the main household structures at ICT-II. Also, after the early Stirling Phase occupation of the site the only structures that are still constructed are those of sub class 5.1. There are several notable characteristics that define this sub class and thus, a typical Stirling Phase American Bottom Mississippian household. They are all rectangular in shape and have an excavated floor. In addition to this, they are wall-trench structures which mean the walls were made by digging a shallow trench into the ground and putting posts within it to support the walls. One final defining characteristic is that they all have an area that is greater than eleven square meters (Collin 1990:68).

Table 1. Table of structure sub classes at ICT-II site and their attributes (Collins 1990).

Attributes	Class 5.1 Structures	Class 5.2 Structures	Class 5.3 Structures	Class 5.4 Structures
Length (average)	5.52 m	3.84 m	4.9 m	n/a
Width (average)	3.13 m	2.9 m	4.13 m	n/a
Area (average)	>11 m ²	9.35 m ²	20.86 m ²	n/a
Shape	Rectangular	Rectangular	Square or almost square	Unusual shape
Construction Method	Wall-trench with excavated floor	Wall trench with excavated floor	Wall trench with excavated floor	Wall trench with excavated floor

The next set of data deals with household features excavated at the Fred Edwards site (Table 2). Here four household features were utilized. Upon analysis of the data there are some interesting similarities, as well as some key differences with the household structure data found for that of the ICT-II site. One of the most notable characteristics is the fact that the household features vary greatly in size from one to the other with some having a total area as small as about eight square meters and others being as large as twenty two square meters. The possible meanings of this disparity will be discussed below. Furthermore, the household structures for the Fred Edwards site are all constructed using single post method to support the wall as opposed to being of typical Mississippian wall-trench construction design. In fact, as stated by Finney and Stoltman the houses were constructed by setting posts into individual post holes as opposed to a wall trench (1991:234). However, for the most part all of the household structures at the site were of rectangular shape, with only one having a slightly more square shape. In addition to this, all of the household features had an excavated floor basin similar to that found at ICT-II. What this data seems to show is a mixing of traits, some being Mississippian in nature, and others being from other, probable Woodland, influences (Finney and Stoltman 1991). This type of mixing of traits is also shown in other aspects of the Fred Edwards site as well as other Periphery Mississippian sites. As a minor note on the areas found for each of the sites it is interesting to

note that the areas or the Fred Edwards structures do not correlate with the length and width numbers given for each. It was discovered that the researchers who published these numbers were calculating the inside area and subtracting the walls to find interior floor area. However, for the Lundy site the interior floor area was already calculated using the length and width data given. At Aztalan the length and the width data also correlate with the area given.

Table 2. Fred Edwards housing data (Finney and Stoltman 1991).

Attributes	Length	Width	Area	Shape	Construction Method
Feature 2 Household Cluster	3.50 m	2.63 m	8.04 m ²	Rectangular	single post with excavated floor
Feature 6 Household Cluster	4.26 m	3.5 m	12.20 m ²	Rectangular	single post with excavated floor
Feature 155 Household Cluster	4.50 m	2.96 m	9.36 m ²	Rectangular	single post with excavated floor
Feature 115 Household Cluster	4.19 m	2.98 m	12.48 m ²	Rectangular	single post with excavated floor
Feature 158 Household Cluster	4.52 m	2.24 m	8.28 m ²	Rectangular	single post with excavated floor
Feature 118 Household Cluster	6.38 m	4.12 m	22.98 m ²	Rectangular	single post with excavated floor
Feature 162 Household Cluster	5.18 m	4.39 m	18.03 m ²	Rectangular	single post with excavated floor
Feature 50 Household Cluster	4.21 m	4.16 m	15.83 m ²	Rectangular	single post with excavated floor

The next set of data that is utilized in this study is the data that has to do with Aztalan. This set of data is the housing data for the site of Aztalan as shown in Table 3. For the site of Aztalan there is data for at least three presumed household structures. As with the Fred Edwards site there appears to be a mixing of attributes that are Core Mississippian in nature and other characteristics that come from some other influence, most likely the Late Woodland population. Two of the housing structures uncovered at Aztalan were a mixture of wall-trench and single-post construction method. However, only two of the structures excavated are rectangular. The other household structure at the site was apparently circular in shape. Another curious aspect of the Aztalan domestic structures is the fact that two of the three structures uncovered had floor surfaces that were level with the surrounding ground surface and only one of the three structures had an excavated basin floor. The structure uncovered at the site of Aztalan that had the excavated floor was also the structure at the site that was of completely wall-trench construction

(Wittry and Baerreis 1958). In addition to the excavated and described structures found at Aztalan there have been additional preliminary descriptions from other excavations at the site of other structural features. It appears that these other structures followed similar trends as the excavated structures. This is shown by the fact that some were rectangular shaped while others were circular. Furthermore, some were clearly wall-trench structures while others were of single-post construction while others still, were a mixture of both construction methods (Richards 1992).

The household features at Aztalan were also generally much larger than the household features found at Fred Edwards; indeed they were larger than the average size of a household structure defined by Collins for the ICT-II site (1990). The largest of these household structures had an area of one hundred and four square meters far larger than at any other site with Mississippian cultural affinities discussed in this study. Possible explanations for this will be discussed below.

Table 3. Household data for the site of Aztalan (Wittry and Baerreis 1958).

Attributes	House 1	House 2	House 3
Length	12.19 m	n/a	3.2 m
Width	8.53 m	n/a	6.24 m
Area	104 m ²	23.63 m ²	19.96 m ²
Shape	Rectangular	Circular	Rectangular
Construction Method	Wall-Trench/Single-Post Unexcavated	Wall-Trench/Single-Post Unexcavated floor	Wall-Trench Excavated Floor anteroom entrance

The final table that has to do with the household features of a single site is the table that documents the Lundy site of the Apple River Mississippian culture (Table 4). Lundy is a small site that contains only one structure that scholars have designated a possible household feature (Emerson 1991b). Several possible reasons for the small nature of this site will be discussed later on. The housing structure, uncovered at the Lundy site, conforms to that of a typical

Stirling Phase Mississippian household in every way. It is rectangular, of wall trench construction with an area that is greater than eleven meters squared. Additionally, it is an excavated basin structure that is partially excavated into the ground (Emerson 2007).

Table 4. Lundy site possible household structure data (Emerson 2007).

Attributes	House 1
Length	5.2 m
Width	3.2 m
Area	16.63 m ²
Shape	Rectangular
Construction Method	Wall-Trench/Single-Post excavated floor

The next data table created for the analysis of household structure data at these disparate Mississippian sites is that of a data table that does an inter-site comparison of all of the previously reviewed data (Table 5). It is within this table that one will see all of the previously mentioned similarities and differences in housing structure at these Mississippian sites put together and compared in one table.

Table 5. Inter-site data on Mississippian Domestic Structures; X=present; O=Absent; XO=Present in some absent in others

Attributes of Mississippian Houses	ICT-II	Fred Edwards	Aztalan	Lundy site (Apple River)
Floor Area >11m ²	X	XO	X	X
Wall Trench Structure	X	O	X	XO
Rectangular Shape	X	XO	XO	X
Excavated Floor	X	X	XO	X

In addition to the household data from these sites, overall site structure and hierarchy, both inter-site and Intra-site will be utilized to compare these sites (Table 6). The first category is that of Inter-site Hierarchy, what this means is the hierarchy that is established between Mississippian sites in a region. At the ICT-II site, being that it is part of the larger part of the

Cahokia site overall, there are examples of all levels of sites in the American Bottom surrounding Cahokia (Mehrer and Collins 1995;Mehrer 1995; and Emerson 1997). However, this aspect of Mississippian culture clearly is not represented at many of the Hinterland sites. Thus far the site of Fred Edwards has no examples of surrounding Mississippian sites and therefore does not appear to be part of a larger Mississippian site hierarchy in the surrounding area (Finney and Stoltman 1991;Finney 1993). This can likewise be stated about the site of Aztalan which also appears to be a stand alone Mississippian site in southeastern Wisconsin (Birmingham and Goldstein 2005;Goldstein 1991;Goldstein and Richards 1991). There is one exception to this apparent lack of an Inter-site Hierarchy in the Hinterland regions that were used in this study. This exception is that of the Lundy site and the Apple River Culture. It has been postulated that the numerous Apple River sites such as Lundy and Mills Village are all part of an Inter-site Hierarchy (Emerson 1991b).

The next set of data examined for comparison between these sites was that of Intra-site Hierarchy or the hierarchy present in some form or another within an individual Mississippian site. ICT-II has many degrees of hierarchy additionally; it appears that during the Stirling Phase ICT-II site also had a degree of stratification within it as many of the structures became oriented toward a low mound that had a structure built atop it located at one end of the site. Mehrer and Collins have suggested that this may have been the residence of a local community leader within the site of Cahokia (1995). At the site of Fred Edwards there also appears to have been some form of community stratification. This is apparent in the fact that several of the household structures appear to have been substantially larger than others (Finney 1993;Finney and Stoltman 1991) some possible reasons for this are discussed below. At Aztalan there is also apparent stratification within the site as well. This is shown in several aspects of the community. First

there are several large pyramid shaped platform mounds and presumably the largest of these, the Southwest Mound, served as the residence of the community leader. Additionally, there was a high degree of spatial separation at Aztalan, with the area that housed the elite being walled off from both the plaza and the residential precinct (Birmingham and Goldstein 2005). At the Lundy site there is no apparent stratification within this site as there was only one structure excavated. However, at the Mills Village site there was some apparent stratification within the site. This is apparent in the construction of at least one and possible several other platform mounds. Additionally, these mounds appear to have been separated, though not to the degree as at Aztalan, from the rest of the residential area (Emerson 1991b).

The next line of evidence for Inter-site Comparison is that of the presents or absence of the characteristic Mississippian style pyramid shaped platform mounds. At Cahokia, and thus ICT-II, there are numerous examples of platform mounds (Birmingham and Goldstein 2005;Emerson 1997;Mehrer and Collins 1995). At the Fred Edwards site there are no platform mounds (Finney 1993;Finney and Stoltman 1991). At Aztalan there are, at the very least, examples of three platform mounds at the site. As has been previously stated, the Southwest Mound was presumably the residence of the community leader, whereas the Northwest Mound served as a base for some type of mortuary facility. The Northeast platform Mound, located within the residential precinct may have served as some type of community structure (Birmingham and Goldstein 2005). For the Apple River Culture there were platform mounds present, at least one and probably more, at the Mills Village site. However the Lundy site being an isolated residential structure had no mounds present at the site (Emerson 1991b). Some of the reasons for this will be discussed below.

Another characteristic structure of Mississippian sites is that of a central plaza. Again this is present at Cahokia on a large scale as well as at the more localized level of ICT-II. At the Fred Edwards site there is a space that located between the household features that was apparently nearly devoid of artifacts that most likely served as a plaza area in the community (Finney 1993;Finney and Stoltman 1991). At Aztalan the plaza area is readily apparent as well and is walled off from the residential area similar to the large central plaza located at Cahokia (Birmingham and Goldstein 2005). Finally, at the Lundy site there is no plaza present as it is a small outlying site, however, at the Mills Village site there are several large open spaces that could have been “plaza” areas as postulated by scholars (Emerson 1991b).

Defensive structures were also common at Mississippian sites and as the data has shown are present at all of the sites analyzed in some form or another. At Cahokia there were large defensive walls with bastions established around the Central Precinct (Birmingham and Goldstein 2005). Excavations at the Fred Edwards site have also at least partially revealed a defensive wall (Finney and Stoltman 1991). At Aztalan there are extensive fortifications present that surround the entirety of the site (Birmingham and Goldstein 2005). The Lundy site has had no excavations that have revealed fortifications. The Mills Village site, on the other hand, is located on a small terraced spur in the river making it naturally defended on three sides and, although no evidence has yet been uncovered, may have had light fortifications (Emerson 1991b).

Table 6. Mississippian site attributes in comparison; X=Present; O=Absent; XO=Present but limited.

Attributes of Mississippian Site Structure	ICT-II	Fred Edwards	Aztalan	Lundy site (Apple River)
Intersite Heirarchy	X	O	O	X (Mills Village)
Intrasite Heirarchy	X	XO	X	X (Mills Village)
Platform Mounds	X	O	X	X (Mills Village)
Plaza	X	X	X	X (Mills Village)
Fortifications	X	X	X	XO (Mills Village)
Overall Site Plan	X	XO	X	X (Mills Village)

Ceramic Data

The next set of data analyzed is that of the ceramics for each of the northern Periphery sites. The site of ICT-II was excluded from this part of the study, as the ceramic data from this site was not necessary for comparison for Hinterland sites. The first ceramic comparison that was done is shown in Table 7. What is displayed in this table is a comparison of the different woodland type ceramics found at the three Periphery sites. The first characteristic of note in the table is the fact that at Lundy Late Woodland ceramic types are absent from the assemblage. However, at both Of these sites it appears that the Woodland occupants were creating different ceramic types and it appears that the only common ceramic type found at both sites is that of Aztalan Collared.

Table 7. Late Woodland Ceramic types from three Northern Hinterland sites.

Late Woodland Ceramic Types	Aztalan	FredEdwards	Lundy Site (Apple River)
Grant Plain		x	
Grant Cord Marked		x	
Grant Collared Impressed		x	
Aztalan Collared	x	x	
Hartley Cross Hatched		x	
Hartley Tool impressed		x	
Hartley Plain		x	
French Creek Cord Impressed		x	
Mitchell Modified Lip		x	
Madison Cord Impressed	x		
Madison Fabric Impressed	x		
Madison Plain	x		
Madison Punctated	x		
Point Sauble Collared	x		
Starved Rock Collared	x		

Table 8. Mississippian ceramic types from three Northern Hinterland sites.

Mississippian Ceramic Types	Aztalan	Fred Edwards	Lundy Site (Apple River)
Cahokia Red Filmed	x	x	
Monk's Mound Red	x	x	
Powell Plain	x	x	
Ramey Incised	x	x	
Local Made Mississippian Types	x	x	x

Another comparison that was done using ceramic types at each of the Hinterland sites was that of a comparison using Mississippian Ceramic types (Table 8). Again the first data of note with this comparison is the fact that Lundy does not conform to the same ceramic types as the other two sites. This is because while the vessels are most certainly Mississippian forms, they are a locally developed style with its own decorative attributes. Both Fred Edwards and Aztalan display this as well, however, the ceramics found at these two sites still fit into the categories developed for core Mississippian ceramic types. What is interesting when these two sites are compared is the fact that both sites have essentially the same Mississippian ceramic types. This may indicate that the Mississippians had a stronger cultural influence and more uniform culture throughout their sphere of influence.

The data, displayed in Figure 11, shows the ceramics for each of the Hinterland sites from the view of a comparison of Mississippian vs. Woodland perspective. As can be seen at both Aztalan and Fred Edwards there are similar amounts of Woodland ceramics that make up each assemblage, however, at the Lundy site almost all of the ceramics come from Mississippian forms (Emerson 1991b; 2007). Additionally, at Aztalan there are far more Mississippian ceramic forms than at Fred Edwards. Another interesting fact that this graphical analysis shows is that

the hybrid Mississippian/Woodland forms, found at both Fred Edwards and Aztalan, were much more prevalent at the Fred Edwards site (Richards 1992; Finney 1993). Several possible reasons for the data present in this graph will be discussed later.

At Aztalan there are several different categories of hybrid vessel types. Richards lists these as categories A, B, and C. All of these types are grit-tempered jar forms that display Mississippian style lip and rim decorative motifs or treatments (Richards 1992:287). Two provisional ceramic types that Richards discussed may also fall into the category of mixed Late Woodland and Mississippian ceramics. The first type is that of Hyer Plain, which appears to be grit tempered analogue of Powell Plain and that of Aztalan Lugged which is appears to be a grit tempered analogue of Ramey Incised (Richards 1992). At the site of Fred Edwards there is considerably more variety in what have been called Hybrid Late Woodland and Mississippian vessels. Some examples of these hybrid vessel forms are listed are grit tempering of a Powell or Ramey jar, both of these types of vessels are very distinctively middle Mississippian types. Another category of hybrid that they list is cord-marking along with shell tempering or cord-impressed decorations with shell tempering. The shell tempering being the Mississippian characteristic and the cord impressed or marked decorations being the woodland aspects (Finney and Stoltman 1991: 247)

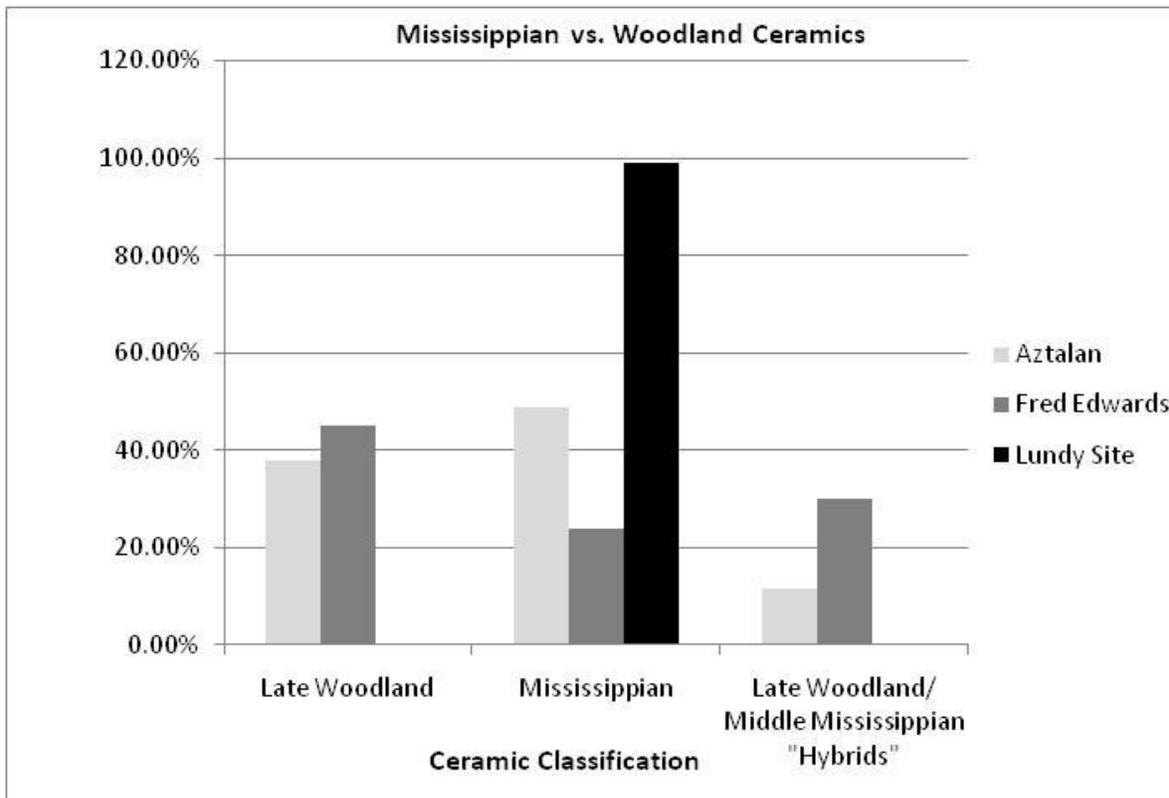


Figure 11. Graph of Mississippian vs. Woodland ceramic vessel counts at Hinterland sites.

The next set of data used to compare the ceramic assemblages of these different sites is that of the data that pertains only to the Mississippian ceramics. As has been mentioned above, Mississippian ceramics forms took on a variety of different vessel forms such as bowls, jars, seed jars, beakers, etc. whereas woodland forms were essentially all jars (Birmingham and Goldstein 2005;Emerson 2007;1991b;Finney 1993;Finney and Stoltman 1991;Richards 1992). This data (Figure 12) is used to compare only the Mississippian ceramic assemblages from these sites to determine the similarities or differences in the ceramic assemblages based upon vessel form. At the Fred Edwards site there were some hybrids that were of other forms aside from jars, however, these were not included as Mississippian ceramics and will be discussed later. As the data shows the ceramic assemblages at each of these sites, based upon vessel form, were very

similar and displayed only slight differences between each of these hinterland sites. The implications of this will be discussed below.

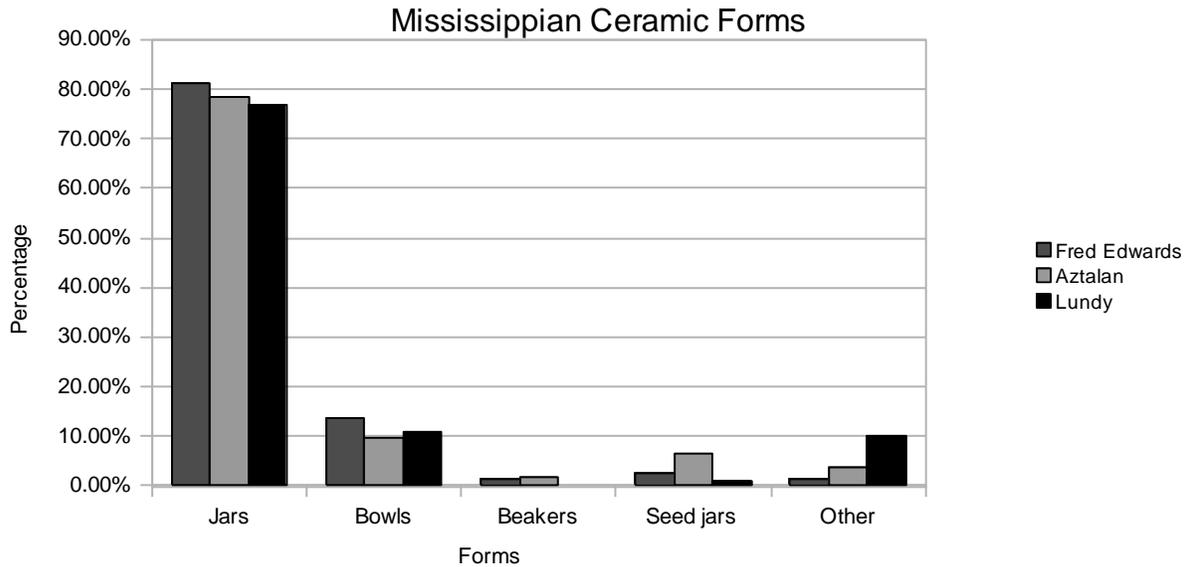


Figure 11. Comparison of Mississippian ceramic forms at each of the Northern Hinterland sites.

The final category of ceramic data, and data overall, analyzed for this inter-site comparison is that of hybrid ceramic forms. This set of information (Figure 12) only pertains to the sites of Aztalan and Fred Edwards as they were the two sites that both had some form of hybrid ceramic form (Emerson 2007;1991b;Finney 1993;Finney and Stoltman 1991;Richards 1992). The data set utilized were the ceramic forms that were hybridized. The graph shows that at both sites the primary form hybridized was that of jars. However, at Fred Edwards there were also limited amounts of bowls and seed jars that were also of mixed Mississippian and Late Woodland design. Some possible reasons for the fact that mostly jars were hybridized will be is the fact that if woodland people were making the ceramics and imitating Mississippian forms they would most likely have been more inclined to imitate forms, such as jars, that were close to their own and thus what they knew how to make.

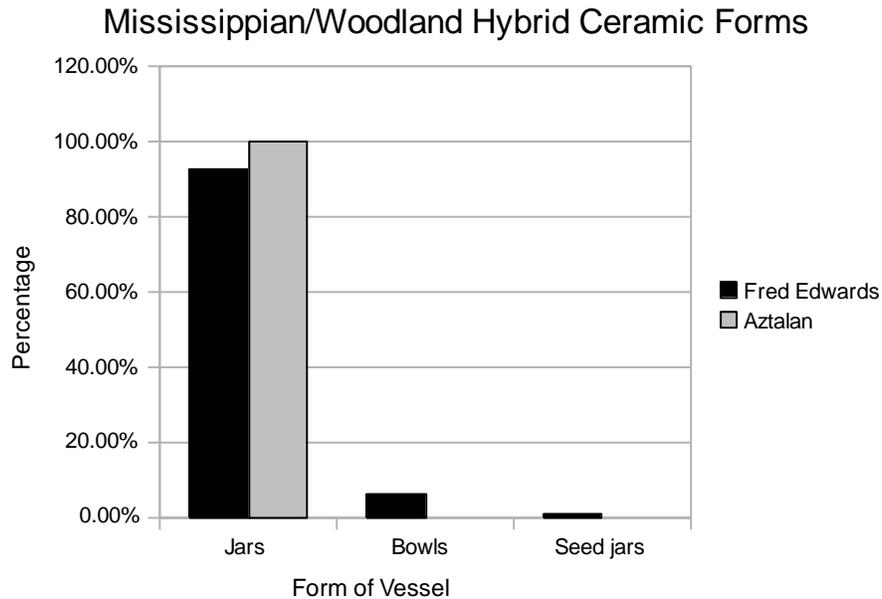


Figure 12. Comparison of hybrid ceramic forms at Aztalan and Fred Edwards.

CONCLUSIONS

This paper started out asking three basic questions to be answered by the analysis of the above data as it pertained to Three Northern Hinterland sites: Fred Edwards, Aztalan, and the Lundy site of the Apple River Mississippian cultural manifestation. The first question that was is there any evidence of social stratification at these Northern Hinterland sites and, if present, to what degree. The second question asked was how these disparate Hinterland sites relate to each other based upon analysis of material culture, through ceramics, and site structure. The third and final question that was asked was how these sites relate back to Core Mississippian culture as seen at Cahokia. These questions were at least preliminarily addressed and answered to an extent by the

data analyzed, of course much more research is needed and could be done to help confirm or refute the conclusions drawn here.

As for the first question it appears that at all three of the Northern Mississippian sites analyzed there was at least in some small part a degree of social stratification. This is evident at the Fred Edwards site in the fact that several of the housing features, that of 118 and 162 which both had floor areas around twenty meters squared. It is suggested by Fred Finney that these two larger structures may have served as the structures that housed the community leaders at the Fred Edwards site (1993). However, a different interpretation is that they may have been communal buildings located at the site (Finney and Stoltman 1991). In any case they show that at the site these two buildings most likely served a special function as they are much larger than the buildings around them.

At the site of Aztalan there is much greater evidence for some form of social stratification within the site. At this site different areas were walled off from one another to control access to various spaces at the site. Additionally, there is the presence of large pyramid shaped platform mounds at the site which indicate a degree of stratification, as it is these mounds that serve special purposes pertaining to the elite in Mississippian society. Furthermore, the largest of these mounds, that of the Southwest Platform mound, is believed to have served as the residence for the leader of the community (Birmingham and Goldstein 2005).

At the Lundy site there is only one household structure uncovered so not as much can be said about social stratification at this site. However, the Mills village site, located nearby and dating from the same time period, does provide evidence for social stratification within the Apple River cultural area. At the Mills Village site there is at least some degree of the segregation of space. This is shown by the fact that the main residential area is separated from the area were at

least one and possibly more platform mounds were constructed. The presents of platform mounds as well as this separation of space seems to indicate that there was some social stratification within the Mills Village site and thus the Apple River culture as a whole. Also, with the Apple River Culture, unlike the other two sites analyzed, there is evidence for intersite hierarchy as well. Thomas Emerson postulates that the Mills Village site served as the central temple town and that the outlying settlements, such as Lundy, were subsidiary sites much like a smaller version of the arrangement found at Cahokia in the American bottom at roughly the same time period (1991b). The presents of intersite stratification also lends to the idea that there was social stratification as well by the fact that the elite class would have been responsible in planning and maintaining subsidiary relationships with outlying settlements.

The second question of how these sites relate to each other is a bit more complicated. As one can see from the above data that there were many similarities and differences between these settlements. The main area of differences at these sites is in the housing structures at each of the sites. Based upon the housing data discussed above one is forced to conclude that these different sites were settled by different peoples in a different fashion at each. Aztalan's houses are generally large and show a mixture of construction traits that are Mississippian and not Mississippian in nature. Additionally, the majority of the ceramics at Aztalan are Mississippian style. It has been stated that the site of Aztalan was occupied by woodland people prior to Mississippian settlement at the site. That these people traded with Mississippians before Mississippians themselves arrived from the south, most likely from Cahokia. This is supported by the fact that After A.D. 1100 the amount of Mississippian ceramics at the increases and some of the forms found were believed to have been made at Cahokia itself (Birmingham and Goldstein 2005: 52). This is also supported by early Strontium Isotope analysis mentioned

before that indicates some of the people at Aztalan originated in the American Bottom (Pauketat et. al. 2007). Further support is given by the fact that at A.D. 1100 the American Bottom suffered a population decline. As stated by Birmingham and Goldstein the settlement at Aztalan may represent part of this population dispersal of Mississippians from the Core area.

At Fred Edwards a different situation appears to have occurred. Either a smaller, or perhaps lower class group of Mississippians arrived to take advantage of Cahokia's expanding trade network at the time or it could have been an intrusion of Late Woodland people into southwest Wisconsin from some surrounding area (Finney and Stoltman 1991:250). Whatever the case may have been these people were not the same as the people at Aztalan as their houses were much smaller, there was less internal site stratification, and differences in the ceramic assemblages that indicate Fred Edwards was far more Woodland than Mississippian in contrast to Aztalan being more Mississippian than Woodland. Of the Mississippian ceramics at each site, however, there is a close pattern at all three sites that show similar trends in amount of ceramic forms. This, however, may not be due to any relationship between the sites but rather part of larger Mississippian site ceramic trends.

The Apple River culture, it appears, is also heavily Mississippian as it has mostly Mississippian ceramics, and distinctly Mississippian structure construction methods as well as site hierarchy. When taken together as a whole I would speculate that none of these sites had much contact with each other and that their traits were a part of the mixing that occurred from population expansion out of Cahokia and the blending of other traits picked up in a new region. The link between all of these sites is that they were either established by Mississippian moving out of the American Bottom or elsewhere or that they were influenced by this outward migration of Mississippian peoples into the Hinterland regions.

This line of thought leads directly to the last question addressed by this study, that being of the relationship of these sites to Mississippian Core culture at Cahokia. It is undeniable that these sites were somehow related to the Mississippian cultural expansion of the Stirling Phase in the American Bottom. The Stirling Phase is roughly when each of these hinterland sites was established and, at least for Fred Edwards and Aztalan, the end of the Stirling Phase in the American Bottom coincides with the abandonment of each of these sites (Birmingham and Goldstein 2005; Finney 1993; Finney and Stoltman 1991). As for the Apple River area it remained occupied into the Mills Phase, roughly concurrent with the Moorehead and Sand Prairie Phases in the American Bottom. However, it appears that as far as external influences go the Mills Phase at Apple River witnessed a decline in influences from the American Bottom (Emerson 1991b).

So simply based upon their chronology and history each of these sites had a relationship in some form or another with the American Bottom. Although these sites show a mixing of traits in their site structure and housing structure they all still bear resemblance to those found at Cahokia. At the Fred Edwards, Lundy site and Aztalan the housing structures are a mixing of Mississippian traits with other outside influences. Each sites overall layout at least partially mirrors a typical Mississippian pattern with some fortifications, a central plaza, and platform mounds, though mounds are lacking at Fred Edwards. Also, the Apple River Culture even has an intersite hierarchy between its sites much like that found at Cahokia. Aztalan appears to have been the site that followed the Mississippian pattern the most when it came to Intersite Hierarchy as well as the site plan and the separation of social space, which closely mirrored Cahokia, albeit on a smaller scale. In conclusion all of these sites show at least partial similarity to Core Mississippian settlement in some degree or another.

There are numerous avenues for further researching attempting to confirm or deny the limited conclusions provided by these data. For this study one could easily expand on data analyzed to find similar or different trends than those displayed here by doing an analysis of lithics or subsistence data. A future study could also expand the sites used and do an analysis of many more Northern Hinterland sites than just three to see if these trends hold over a larger area or if perhaps more regional trends develop with these hinterland Mississippian sites. One may consider researching Mississippian ceramic forms more closely to determine if the data showing Mississippian vessel forms at different sites is a Mississippian universal. Yet another interesting avenue would be to compare Hinterland Mississippian cultural sub-regions such as a comparative study of the Apple River culture with that of the Spoon River in Central Illinois. A final suggestion would be a similar analysis done for periphery Mississippian sites in the southern regions to see how these sites were set up and if they were similar to Northern Hinterland sites.

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