Ramey Incised: The Lines Connecting
The John Chapman Site
To Cahokia

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Abstract

The appearance of Ramey Incised pottery at the John Chapman site in northwest Illinois has raised questions concerning northern Mississippian peoples adopting ideas of more southern groups. Specifically, how did prehistoric Native Americans in the Upper Mississippi River Valley adopt Cahokian ideas? One of the primary modes of studying extinct groups is through their pottery. This study will focus on Ramey Incised pottery, a type with religious, ceremonial, and political connections. Ramey Incised was first produced at Cahokia, a large prehistoric settlement near present day St. Louis. From Cahokia, this pottery type is found either exported out to or emulated in outlying settlements within the Mississippi Valley. With the appearance of Ramey at Upper Mississippi Valley sites such as Chapman, the question arises as to whether it was the people, the pots, or the ideas behind the pots that were moving north. This study is an attempt to identify how Ramey appears so far north of Cahokia. A comparative analysis was done using stylistic types, decorative motifs, temper, and paste of the Chapman site, the Fred Edwards site and Cahokia. Through comparisons of pottery from these three sites—Chapman, Cahokia, and Fred Edwards—patterns arise within the pottery, identifying where it was made, thus resolving the issue of whether it was the people, pots, or ideas moving north.

Introduction

Hanover, IL

During the summer of 2003, I found myself in the middle of a cornfield outside the town of Hanover, IL, population 800.

My interest in Mississippian archaeology had led me here; the University of Illinois’ field school at the John Chapman site in Jo Daviess County.

Throughout the six weeks, the July sun beat down on my back as I carefully excavated the remains of a 1000-year-old house that appeared to have been burned. The experience was amazing. Sure, there was little shade from the summer heat, the work was hard, and I suffered a strange rash on my leg, but those are fading memories. What I recall most is the unearthing of hundreds of ancient artifacts, uncovering a house basin, and standing on the floor of that house untouched by human feet for a thousand years.

Pottery has always fascinated me.

Ever since I found that first sherd in eighth grade, I have been hooked. So, I was excited when a new piece was uncovered by me or anyone else at the site.

We found Woodland and Mississippian, decorated and undecorated, small pieces and large. Some of the decorated sherd had straight or curved line designs scrawled into them. These were the pieces that the
director, Tim Pauketat, seemed the most excited about. He called them “Ramey” or a local version of it, which meant nothing to me at the time.

But after discussions in the field and lectures back at the hotel, I became more familiar with this type of pottery- Ramey Incised.

It had originated in Cahokia, serving a special purpose and having an important meaning to the people there.

As the field school went on I thought about and discussed topics for my thesis. I decided to focus on Ramey Incised pottery and three related questions: Is this locally made pottery or Cahokian; Why was it way up here, some 250 miles north; And how did it get here?

**Research Problem**

Evidence for what is referred to as Mississippian culture appeared around AD 750. These groups occupied floodplains along major rivers in the Eastern United States. They attained chiefdom-level organization, had similar religious systems, and developed complex exchange networks in which exotic goods could be traded long distances (Smith 1990). The site of Cahokia, located in the American Bottom region near present day St. Louis, was the largest of the Mississippian settlements, and contained over 120 earthen mounds (Moorehead 1923:49).

This is where the production of Ramey Incised pottery originates (Griffin 1945:51). From here, it is believed to have been either exported out to or emulated at other sites in the American Bottom, the Upper Mississippi River Valley and as far away as South Dakota and Louisiana (Hall 1991, Pauketat in press; n.d.).

One of the primary ways to reconstruct past political, economic and religious systems is through an analysis of pottery.

This study will focus on Ramey Incised pottery, a type associated with religious, ceremonial, and political ideologies. The appearance of Ramey Incised at the John Chapman site has raised questions concerning northern Mississippian groups adopting ideas from the south. Specifically, how and why did people in the Upper Mississippi River Valley adopt Cahokian ideas?

Ramey Incised has been discovered in many small Cahokian outliers throughout the Mississippi Valley.

With the appearance of Ramey incised at Chapman and other Upper Mississippi Valley sites, the question arises as to whether it was the people, the pots, or the ideas behind the pots that moved north.
Using the pottery assemblage from the recent excavations at the Chapman site, this paper focuses on the appearance and movement of Ramey Incised pottery into the Upper Mississippi River Valley from Cahokia.

In this paper, I have attempted to determine the location of production of the Ramey vessels found at Chapman. These locations are discussed in terms of local versus non-local production. Non-local describes vessels made at Cahokia based on characteristics of Ramey from the American Bottom. Local production defines vessels that were not made at Cahokia and were most likely made at Chapman or a nearby settlement in the Upper Mississippi Valley. These pots are clear replicas of Cahokian Ramey. Locally made vessels have distinct differences in designs, style and technology. From these locations, it becomes easier to determine how and why Ramey vessels appear at Chapman.

For example, Cahokian Ramey vessels found at Chapman may be attributed to trade between these two sites. This trade may have been direct or a down-the-line connection with other sites in contact with Cahokia. Vessels at Chapman with evidence of local production may point to emulation of the Ramey style and its religious or sacred connotations.

With these possible locations of production in mind, the types of interactions occurring within the Mississippi Valley during this period of prehistory become more evident. For a better understanding of the geographical and regional contexts of these connections, a description of the Chapman site is given next, along with a history of the archaeological investigations.

**The John Chapman Site**

The John Chapman site (11Jd12) is located in northwest Illinois near the confluence of the Apple and Mississippi Rivers in Jo Daviess County, approximately 400 km north of Cahokia (see Map 1). The site is located on the east bank of the Apple River outside of the town of Hanover on a plot of farmland that has been cultivated since the late 1800s (Bennett 1945:146). This portion of Illinois lies in what has been termed the Driftless Area, a region undisturbed by Late Pleistocene glaciation. This unglaciated area covers approximately 16,000 km², extending into southwestern Wisconsin, northeastern Iowa and southeastern Minnesota (Frankie and Nelson 2002).

Untouched by glaciers, the topography here is some of the most rugged in Illinois with high hills, steep slopes and sharp ridges.
The University of Chicago first investigated the Chapman site in 1932 and Bennett (1945) completed the initial analysis of this investigation. The seven test pits produced two circular fireplaces, shell, one shell hoe, ceramics, large isosceles points, scrapers and an incised stone earspool (Bennett 1945; Emerson 1991). Bennett placed the Chapman site along with two other sites in the area—Mills (11Jd11) and Savanna Proving Grounds (11Ca226)—into what he calls the “Apple River Focus”.

Based on the artifacts recovered, the three sites showed a combination of Upper and Middle Mississippian occupation, and were therefore placed into their own “focus” (Bennett 1945). Bennett also concluded that because of the few artifacts found at Chapman it was a simple farmstead, perhaps an outlier of the nearby Mills site.

More recently, Emerson (1991:174) has placed the Chapman site into the Bennett Phase (AD 1050-1200), which is culturally and chronologically similar to the Stirling Phase of the American Bottom (see below). Surface collections done in 1985 revealed a single plowed down mound and evidence that Chapman may be a multihectare village or possibly a small mound center, rather than a simple farmstead (Emerson 1991:170).

During the summer of 2003, the University of Illinois conducted a field school at the Chapman site under the direction of Tim Pauketat. Removal of topsoil produced 12 single-post house basins and 140 pit features, of which 11 houses and 60 pits were excavated. From these features, thousands of artifacts were unearthed dating from the Late Woodland to Upper Mississippian.

The site is now thought to cover a 30-hectare area that includes a small platform mound that has been reduced in size as a result of farming (Millhouse 2003). Local collectors at the site also report the presence of several mounds that have since been leveled by plowing (Millhouse 2003), so Chapman may have once been a small mound group and village.

Just south of the Chapman site, on the same side of the Apple River, is the Grace Chapman mound group consisting of 19 medium-sized conical mounds. On the east side of this group is a 300 feet long narrow mound. Overlying the southern part of this linear mound is a large conical mound. To the south of the conical mounds is an effigy mound thought to be in the shape of a tadpole (Bennett 1945:68-9). Limited
investigations conducted at the site consisted of excavating test pits in five conical mounds and a trench through the southern portion of the linear mound. Artifacts found during the investigations were mostly pottery that points to a Woodland occupation; however, charred corn, a small triangular point, and a mussel shell were found within one mound. These latter artifacts suggest a Mississippian presence at the site, which is not surprising given the nearby Chapman village.

Bennett (1945:72) also points out the unusual amount of debris found within the mounds, which contrasts with other mound groups in the area. He suggests these mounds were built by Mississippian with the debris from the Woodland groups. From this evidence, it is quite possible that the Chapman site inhabitants were utilizing this nearby mound group or even constructed it.

The Grace Chapman group might have had special meaning or a sacred use for the nearby villagers, which may have important implications as to why Ramey appears at the Chapman site (Pauketat personal communication 2004).

**Literature Review**

*The Mississippian*

The term “Mississippian” is used to describe prehistoric Native American groups in eastern North America between about AD 750 and 1500 \[1\] (Smith 1990:1).

These societies flourished in major river valleys of the Midwest and Southeast, such as the Mississippi, Tennessee and Ohio River valleys (Griffin 1967).

Distinctive artifacts and changes in lifestyle define the Mississippian. Located in flood plains, the fertile soils allowed for cultivation of maize on a large scale. These people came to depend on agriculture for everyday food and to produce a storable surplus.

Although successful in agriculture, Mississippian also harvested nearby rivers for fish and waterfowl, and local woodlands for deer and turkey (Griffin 1967). The abundance of subsistence opportunities led to increased population densities, and in turn the creation of complex chiefdoms.

Another identifying factor of Mississippian was their unique pottery type and style. Crushed mussel
shell used as temper in pottery appeared for the first time and was utilized throughout the Mississippian period (Pauketat in press; n.d.).

The construction of large flat-topped earthen mounds, or platform mounds, was also an important characteristic of these cultures (Pauketat in press; n.d.).

The following is a brief summary of the important events or characteristics of each Mississippian phase to give a better understanding of prehistoric life in the Eastern United States (following Pauketat in press; n.d.). I also consider in more detail, the Cahokian phases that are more pertinent to this study.

The Late Woodland Phase (AD 400-900) is the time when Mississippian-like traits start to appear in the Eastern United States. Intensification of food production, introduction of the bow and arrow, and construction of mounds and plazas all occur within this period (Anderson and Mainfort 2001, McElrath et al 2000 cited in Pauketat in press; n.d.). Crushed mussel shell used as temper appears during this time (Lynott 1987 cited in Pauketat in press; n.d.). Maize was also adopted in the Late Woodland and gradually becomes more important in their diet (Pauketat in press; n.d.).

The Terminal Late Woodland (AD 900-1050) was a time of population growth and movement towards floodplain areas, such as the American Bottom. This was also a time when people were interacting with each other on a much larger scale than previous periods. People moved to new areas and spread new ideas throughout much of the Eastern United States (Pauketat in press; n.d.).

The Early Mississippian Phase (AD 1050-1200) was a continuation of Woodland period concepts, such as maize agriculture. Artifacts also show the appearance of unique characteristics of Mississippian peoples: shell tempered pottery became predominant, pyramid mounds were constructed, new house styles were built, and new icons depicting supernatural themes were created (Pauketat in press; n.d.).
The Late Mississippian Phase (AD 1200- ca 1600) saw the expansion of Mississippian polities, such as Moundville in Alabama. Palisades were built around villages and the distinctive Mississippian “cult,” termed the Southeastern Ceremonial Complex expanded. Motifs and icons associated with temple rites, earth fertility and ancestor worship were found on a wide range of artifacts, including copper and shell (Emerson 1989; Pauketat in press; n.d.).

The Contact Period (AD 1600 ± 100) saw the arrival of Europeans to the New World (Pauketat in press; n.d.). This brought with it in new products, such as metal, as well as fatal diseases wiping out large numbers of the native populations.

Throughout the years AD 800 to 1600, the Mississippians flourished at several major centers throughout the eastern United States. Today, some of the more widely known Mississippian communities are Moundville in Alabama, Spiro in Oklahoma, Etowah in Georgia, and of special interest in this paper, Cahokia in Illinois.

**Cahokia**

This large Mississippian mound center was located in the American Bottom region near the state borders of Illinois and Missouri (see Map 1). The American Bottom, east of modern day St. Louis, is an area of low-lying floodplain that covers approximately 800 km² (Kelly 1990). The nutrient rich floodplain soils and abundant marine resources provided Mississippians with a perfect setting for what became North America's largest prehistoric settlement (Griffin 1967) covering more than 13 km² of the American Bottom region (Emerson 1997:44).

Among the more than 120 mounds, Monk’s Mound dominated the landscape. This pyramidal shaped platform mound with four tiers stands 30 meters over the surrounding area and covers 17 acres at its base (Dalan et al. 2003).

There is evidence on the uppermost terrace of a large wall trench style structure 131 feet by 68 feet in size (Reed 1973). Construction of this mound was quite a feat, taking well over 100 years and over 700,000 cubic
meters of fill to build it (Dalan et al. 2003:108).

Mound 72 also deserves mention. This small ridge-top mound contained a complex burial of several individuals. The central focus of the burial seems to be two men, one buried face down, the other face up with a shell bead blanket in the shape of a falcon between them. Sheets of rolled up copper, a pile of mica, 1,200 arrowheads, and 15 chunky stones, were also found with them as apparent offerings. In a small mound within Mound 72, four males were found buried beheaded and with their hands cut off.

Also, in a nearby pit, more than 50 female skeletons were found that ranged in age between 18 and 23 (Young and Fowler 2000). This must have been an elite’s burial or someone of great importance to Cahokia, perhaps somehow connected to the rise of this great settlement and the construction of Monk’s Mound.

The Mississippian cultural chronology can be broken down further into more specific 50 to 100 year time frames. This helps give an idea of what was happening during shorter time spans in the American Bottom within the larger Mississippian context. These dates are based on Emerson’s (1997) re-calibration of radiocarbon dates from the region. These periods overlap with the broader Mississippian chronology, but the dates are more specific and are utilized within the American Bottom.

The Emergent Mississippian began around AD 800 and lasted up to AD 1000. Muller (1997:118) points out that this phase was marked by previous Late Woodland complexes becoming more political and hierarchical. During this period, new subsistence strategies were also developing. The Emergent Mississippian shows a combination of Mississippian traits, such as ceramic styles and mound building, although, it does not have all the characteristics of the complete Mississippian periods of the 11th and 12th centuries seen below.

The Lohmann phase (AD 1050-1100) was the first Middle Mississippian phase in the American Bottom (Emerson 1997). This period saw the beginnings of Cahokia as a central figure in the Mississippian world (Hall 1991). Emerson (1997:48) states “The most important phenomenon during this time period is the implied transformation that took place in the political, religious, and social aspects of life during the late Emergent
Mississippian period and early Lohmann phase.”

The population at Cahokia during this period is estimated at around 10,200 to 15,300 people (Pauketat and Lopinot 1997:115).

This period was also when the construction of Monk’s Mound began (Collins and Chalfant 1993, Emerson and Woods 1990, Reed, et al. 1968, Skele 1988, cited in Emerson 1997). Mound 72 was also utilized during this period.

Houses began to increase in size and change from single-post to wall trench style, although both types were visible within this phase (Emerson 1997).

This was also the period in which contact with northern peoples began at sites such as Chapman and Fred Edwards (Emerson 1991; Stoltman 1985, 1991).

The Stirling phase (AD 1100-1200) was a period of major expansion. Cahokian influence spread throughout the American Bottom, up both the Illinois and Mississippi Rivers (Emerson 1997). Construction of Monk’s Mound was completed during this period (Emerson 1997). The first appearance of a palisade around the central village area is seen and was rebuilt within this same period (Anderson 1977:92; Pauketat 1987a, 1990:72 cited in Pauketat 1994).

This phase also saw the use of shell temper in the majority of ceramic vessels and Ramey Incised first appeared.

Houses were still expanding in size, although almost all were built using the wall-trench method (Emerson 1997:51).

This period may have also been the beginning of the decline of Cahokia as population estimates dropped to between 5,200 and 7,200 people (Pauketat and Lopinot 1997:116).

The Moorehead Phase (AD 1200-1275) showed slight changes in ceramic assemblages, but Cahokian life was unchanged (Emerson 1997:52).

Ramey Incised was still available in the early Moorehead, but became virtually extinct by the middle of this period (Pauketat 1998).

Population during this period is estimated at 3,000 to 4,500 people (Pauketat and Lopinot 1997:116).

The Sand Prairie phase (AD 1275-1350) appears to have been a period of the smallest amount of activity at Cahokia (Emerson 1997:53).

Ramey Incised was no longer made and house sizes reached their maximum. This period basically marks the
fall of Cahokia.

People are found to have left the area and moved out of the Bottom, as few sites in the area contain evidence of a Sand Prairie component (Brandt 1972:65 cited in Emerson 1997:53-4; Woods and Holley 1991).

The Fred Edwards Site in the Upper Mississippi River Valley

The period between AD 1000 and 1200, which encompasses the Lohmann and the Stirling Phases of the American Bottom, was a time of major interaction between Cahokia and settlements in the Upper Mississippi Valley (Stoltman 1985). The most compelling evidence of this comes in the form of Powell Plain and Ramey Incised vessels.

There are eight sites in the Upper Mississippi Valley containing Powell or Ramey ceramics that have been radiocarbon dated, all of which fall into the AD 1100-1200 range (Stoltman 1986).

The Fred Edwards site (47Gt377) is located in southwest Wisconsin on the Grant River about 13 km upstream from where it meets the Mississippi (see Map 1; Finney and Stoltman 1991:229). The site covers approximately 3.5 hectares, of which 1.2 hectares is the main village site that was partially surrounded by a palisade.

Based on radiocarbon dates, the occupation for the site occurred during the Stirling phase of the American Bottom (Finney and Stoltman 1991).

The Middle Mississippian artifacts from the Fred Edwards site are also thought to be related to the Bennett phase of the Apple River region. The cluster of sites in the Apple River area—Mills, Chapman and Lundy—are the closest Middle Mississippian sites to Fred Edwards, located approximately 64 km southeast (Finney 1992).

This position and time period of Fred Edwards being so close to the Apple River area, allows for strong comparisons between it and Chapman.

Evidence at the Fred Edwards site shows that the occupants were involved in the acquisition of galena, as well as deer and elk products for use by people elsewhere in the Cahokia cultural sphere (Finney and Stoltman 1991). There is also evidence of imported items at Fred Edwards as well:

The wide diversity of non-local items recovered is unparalleled at any other site in the Upper Mississippi Valley region, except possibly Aztalan, and suggests that the site’s residents were actively engaged in a far-flung exchange system that almost certainly had Cahokia as the ultimate moving force. [Finney and Stoltman:229-31; see also Finney 1992]
Finney (1992) also believes that intermarriage and vessel exchange may have taken place between Fred Edwards and Apple River sites, thus explaining the occurrence of Middle Mississippian vessels at Fred Edwards. Although, this may not be the only reason for Middle Mississippian vessels, as there is evidence of Powell Plain jars that were made in Cahokia (Stoltman 1991 cited in Finney 1992) and Ramey jars made at another undetermined Mississippian site (Finney 1992).

Of the total Fred Edwards ceramic assemblage, 13 vessels (4%) are Ramey Incised jars. Based on petrographic analysis only one of these Ramey jars shows evidence of being manufactured at Fred Edwards (Finney 1992:131).

Evidence at Fred Edwards shows it was an area of significant import and interaction. Connections to Cahokia can be seen, as well as other Mississippian sites, such as Mills in the Apple River region. Although only one vessel was found, Ramey was manufactured at the site, which has important implications for the adoption of southern ideas there and at nearby Chapman. With petrographic thin sectioning done on much of the Fred Edwards assemblage (Finney 1992; Stoltman 1985), this site plays a major role in determining whether pots, people or ideas arrived at the Chapman site.

**Ramey Incised Pottery**

As mentioned above, Ramey Incised appears during the Stirling phase of American Bottom prehistory (Milner et al.1984: 168). Its production and use at Cahokia seems to be tied closely with a ceremonial complex involving fertility and life forces.

This is based on historical accounts of ceremonies such as the Busk and Green Corn Ceremonies (Emerson 1989: 65; Pauketat and Emerson 1991). Prior to these ceremonies, elites met with each other determine types of vessels to be made, these pots were then later used for medicine preparation during the ceremonies and later distributed throughout the village. There are also depictions of the ceremonial use of pots closely resembling Ramey with nested arc motifs at Spiro in Oklahoma (Emerson 1989: 65-6, fig.8).

Within the Stirling phase Ramey is also found in upper Mississippi valley sites, such as Chapman and Fred Edwards (Emerson 1991; Finney 1992; Stoltman 1985). Pauketat and Emerson (1991:924) note “the dispersal of these American Bottom vessels (but not their imitations) or simply the spread of the vessel style
itself no doubt was related to the Mississippian political centralization and the enlarged exchange networks of the Mississippian elite.”

Although perhaps tied to the elite in the American Bottom, Emerson (1989:63) suspects “the meaning, context, and significance of Ramey ceramics is not necessarily identical at a major center such as Cahokia and outlying communities such as those in the central Illinois valley, northwestern Illinois, or southern Wisconsin.”

While Ramey pots may have had different meanings in different regions it is still apparent that it was an important part of Mississippian life and therefore must be looked at more closely within the framework of its northward movement out of Cahokia.

For a study of this nature, a formal description of Ramey Incised ceramics is necessary. However, because of the numerous outlying sites containing Ramey or local versions of it, I will consider only discussions and literature covering Cahokian Ramey.

Ramey Incised, first designated a type by Griffin (1949) refers to a Middle Mississippian vessel, usually in the form of jars (see picture). The lower body has a globular to flattened shape. The vessels have shoulders with sharp angles and short vertical to outslanting rims. Designs on the Ramey vessels consists of broad, incised lines that are relatively deep and applied when the clay was not quite dry. Once the vessel has dried a slip may be applied, which reduces the depth of the incised lines (Griffith 1981). Decoration is in several forms including scrolls, arched semicircles, parallel lines, and ladder designs. Exterior surface finishes include highly polished and red slipped with some sherds having red interiors. The paste is a fine to medium fine texture with mostly smoke-blackened exteriors, while interiors are usually gray to light buff. Tempering is crushed mussel shell, with a high proportion of shell to clay. The pieces of shell are usually small and laminated (Griffin 1949; Griffith 1981; Holley 1989; O’Brien 1972).

The construction of Ramey is seen as consisting of a much higher energy input when compared to other utilitarian wares. The vessels appear to be a two part project, with the lower globular body produced first and scraped thin before the upper slanted rim was added (Pauketat and Emerson 1991:922). There is also a low diversity of paste, which may point to Ramey production being centralized and controlled by elites, and not the work of many potters (Pauketat and Emerson 1991:923). Emerson (1989) suggests that a limited number of potters were producing Ramey pots only during specific times of the year, and also that the high quality and
relatively low occurrence of Ramey vessels indicates it was associated with the upper levels of society.

Although no great variation is seen in paste, the size of Ramey pots does differ greatly, varying from one or two to over 50 liters (Pauketat 1987 cited in Pauketat and Emerson 1991:923). The pots may have been used in gatherings or ceremonies where large pots were necessary to cook and store massive amounts of food (Emerson 1989; Pauketat 1994; Pauketat and Emerson 1991). Ramey may have also been made for the purpose of transporting food items from administrative centers, and as would be expected the vessel size decreases the further away it is found from Cahokia. In other words, smaller pots would have been easier to carry long distances (Pauketat and Emerson 1991:fig 2). Emerson (1989:65) suggests that Ramey “is not the most holy vessel of a limited number of religious specialists but more likely what might be referred to as a ‘utilitarian’ ritual ware.”

The use in rituals and control by elites does not restrict Ramey to only certain elite or ceremonial locations, as it has been found within common households (Holly 1989; Pauketat 1987). The redistribution covered above may be how the Ramey containers end up in these domestic settings. Although, Pauketat and Emerson (1991:924) suggest “that once these vessels were removed from the administrative center(s)—passed on to the non-elite rural households—their ritual meaning decreased as they entered the mundane world of the utilitarian container.” But they add, “we cannot eliminate the possibility that they functioned in household-level ceremonialism.”

Important to defining Ramey as sacred or of ritual importance are the designs found on the containers.

Emerson (1989) points out that Ramey is obviously Powell Plain with a design element added, therefore the designs must be intended for special purposes, not just decorations for the elite. If the designs “were purely decorative, then there is little reason why every household should not have transformed its Powell Plain into Ramey Incised” (Emerson 1989:64).

Numerous curvilinear motif elements have been identified on Ramey vessels. Based on Emerson (1989), these can be grouped into nine basic categories and an additional three that include combinations of elements (see Table 1). The nine categories are as follows: chevron (I), arc (II), trapezoid (III), scroll 1 (IV), scroll 2 (V), wing (VI), spiral (VII), forked eye (VIII), and circle (IX) (see Emerson 1997:213; Emerson 1989:68-70). Holley (1989:384-5) places Ramey designs into only six basic categories. Upon comparisons of Holley’s and Emerson’s categories, Holley’s tend to be more general and fall somewhere within Emerson’s nine categories; therefore, Emerson’s design categories will be utilized here and in the following
sections.

There have been numerous attempts to better understand Ramey symbolism, and meanings for the motifs (see Emerson 1989; Griffith 1981; Hall 1973 and Porter 1974 cited in Emerson 1989). For example, some suggest that the arc represents a rainbow or rain and symbolizes water and trapezoids stand for hills (Griffith 1981) or mounds (Porter 1974 cited in Emerson 1989). Griffith also sees the spiral as a sun or moon, and the interlocking scrolls as animals in combat. Emerson (1989) adds that the spirals closely resemble a coiled snake or the columella of a marine shell. Feathered scrolls are thought to represent wings and therefore, the “bird man” of Mississippian folklore, found in carvings (Emerson 1989). These incised designs are then tied either to the Upperworld or the Underworld of Mississippian folklore; for example the sun would be connected to the Upperworld and a snake to the Underworld (Emerson 1989). The area of design placement on the pot and the repetition of elements within each pot are also though to be important in understanding the symbolism of Ramey pots (see Pauketat and Emerson 1991 and Griffith 1981).

Looking at these designs and their meanings it appears that Ramey played an active and important role in the rituals and ceremonies of Mississippian people. As these pots were exported to or emulated within the Upper Mississippi valley, the meanings behind them may have changed. That is not to say they lost all meaning, but were perhaps utilized differently and within different settings. To get at these meanings and contexts of use outside of Cahokia and the American Bottom, sites geographically removed from that region must.

The following section is devoted to a detailed description of the Ramey Incised pottery sample from Chapman, and a comparison to similar pottery from Cahokia and Fred Edwards.

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**Data Section**

**Analytical Procedures**

The pottery sample used for this study consisted of 29 rims and 12 body sherds from the Chapman assemblage. Only sherds with visible incising were chosen from the 2003 excavation for this study. Although rim, as well as body sherds were analyzed, body sherds were used mainly for decorative motif identification. The 41 sherds were grouped into vessels. The individual vessel was the basic unit of analysis and comparison; single vessels were identified based on characteristics of rim sherds (see Holley 1989;

The analysis of the Chapman pottery sample was done with weight and linear measurements and observations of paste, temper, decorative motifs, and lip types. These data were then compared to the Ramey Incised from Fred Edwards in southwest Wisconsin and Cahokia in the American Bottom. The Fred Edwards site was chosen primarily because of its location in the Upper Mississippi Valley. Also taken into account was the available published material, the similarity in pottery assemblage size to the Chapman site, and the occurrence of Ramey Incised pottery at the site.

Sample Description

A total of 41 sherds—29 rim and 12 body—weighing 863.61 g, constitute the entire sample utilized in this study. While the most important data in the ceramic assemblage comes from whole vessels, none were found during the 2003 excavation at the Chapman site; therefore individual vessels were identified based on differences in size, shape and style of rims, as well as surface characteristics [4]. Sherds with sufficient differences within these attributes were then designated vessels (see Holley 1989; Jackson 1992; Pauketat 1989). According to these guidelines, a total of 23 individual vessels have been identified in the Chapman incised sample. Non-fitting rim segments with similar profiles, lip types, and decorative motifs were found to be the same vessel in only two cases—vessel numbers 39-1 and 47-3. Vessels were given numbers based on the feature found in and order identified (e.g., 47-3 is from feature 47 and the third vessel identified in that feature). The following discussion is also illustrated in Table 2.

Once individual vessels were identified they were classified by form. Pauketat (1998) using Shepard (1980:230) describes jars as:

Restricted containers that have simple or composite contours where orifice diameters are less than the (projected) vessel depths and where the widest point in the vessel wall (the shoulder) is located at or above the midpoint of the vertical extent of the pot (but below the lip).

Drawings of rim profiles as well as the above criteria were utilized in the classifying of vessel types (See figure 2). Following these guidelines, all vessels within this sample have been identified as jars.

Temper of individual sherds was identified by macroscopic analysis. A total of 22 vessels (96%) were tempered with crushed mussel alone.
The remaining vessel had a combination of crushed shell and grit temper. All of the body sherds were found to have shell temper.

Crushed shell temper was identified by the shape of the angular voids left from leaching, and the flat, laminated appearance in the profiles. Grit temper identification was based on the abundance of small pieces of crushed rock. From the relative abundance of the rock, it was inferred that its inclusion was intentional.

Analysis of exterior treatments was done to identify the presence of a slip on the vessel. Rice (1987:149-50) defines a slip as “a fluid suspension of clay (and/or other materials) in water that is applied before firing to form a thin coating” on the vessel, which may give the original surface a different color. Slip color was noted where possible, although only red and black were used as descriptions. This was done to differentiate between darker and lighter colored slips, because the naming of many different colors can become too subjective.

Polishing was also noted where possible, although this became a more difficult category, as exterior surface conditions were highly variable from weathering activities. Vessels without noticeable polishing or slipping were identified as plain.

Classification of exterior treatments was done macroscopically and with the aid of a 10X hand lens; therefore, upon further analysis, such as thin sectioning, some sherds identified here as plain may actually be slipped or polished but were too weathered to positively identify.

A total of 7 vessels (30%) from the sample showed evidence of a slip. Of the total slipped vessels, 4 (57%) were red-slipped and 3 (43%) were black-slipped. One vessel has traces of polishing. The remaining 15 vessels (65%) had plain surfaces. One pot was too weathered to determine if a slip was present. For body sherds, all were plain with the exception of one polished piece.

Also taken into consideration for this study was vessel shape. Without whole vessels present, this was based on profiles of available rim sherds. Because the basic identifying characteristic of a jar is the neck and shoulder, it is necessary to define types of these two attributes.

Rice (1987:212) defines the neck as “a restriction of the opening of the vessel…beginning above the point of maximum diameter of the body, that is, at some point on the shoulder.” Rice then defines a shoulder as the area of maximum diameter of the vessel.
Using Holley (1989:14), shoulder types were designated where possible. Holley defines four categories of shoulders: “rounded, a globular shape with an uninterrupted contour; angled, a slightly angled shoulder; sharp-angled, an abruptly defined shoulder facet; and hyperangular, a shoulder shape that arcs upward to meet the lower body” (see Holley 1989; fig 2). Only four vessels were intact enough to be assigned to a shoulder type (see Table 1). Vessels 13-1 and 35-1 have angled shoulders, Vessel 39-1 has a rounded shoulder, and vessel 93-1 has a sharp-angled shoulder.

Vessels 39-4 and 47-4 appear to have been broken at the shoulder, but based on what is visible, may be assigned to the rounded shoulder type.

Body sherds were also given shoulder types when a definite shoulder was present. As seen in Table 2, four sherds had angled shoulders, one had a rounded shoulder and one a sharp-angled shoulder.

Neck types became difficult to classify, as these are somewhat arbitrary measurements and no clear distinctions could be made between some types. With this in mind, necks were identified based on their orientation to the orifice. Types were designated using one of Holley’s (1989:14) four classifications: straight, inslanted, flared and angled (see Table 1). Out of the total sample, 15 (65%) vessels have inslanted necks, two (9%) have flared, and one (4%) has an angled neck. Three vessels were indeterminate because of lack of a visible neck and unidentifiable orifice plane. With only four positively identified shoulders no clear connection could be made between shoulder and neck types.

Classification of lip types was also done when possible, although this too posed a problem. With rim and lip segments so closely related and often blending into one another (Rice 1987:214), it was necessary to choose only one to analyze.

With lips being easier to identify (Rice 1987:214) and rims becoming a more subjective classification as to where they start and end, lip types were chosen to describe the uppermost body of the vessel. A lip is defined as “the edge or margin of the mouth of the vessel” (Rice 1987:214). More specifically for this study, a lip was characterized as the outermost projection of the orifice, extending from the exterior wall to the interior wall (Holley 1989:20).

Using Holley (1989) and Jackson (1992), four categories were utilized for lip classification: rounded, rolled, extruded and extruded-rolled.
Rolled lips have a rounded exterior margin, while rounded lips occur as unmodified margins with no real change in width of the wall. Extruded lips are seen as pulled or pinched and extending further from the orifice than the previous two. The extruded-rolled type is a combination created for this sample that displays a rounded margin, but also extends from the orifice of the vessel.

Based on the above criteria, the majority of vessels (12, 52%) have rolled lips (see Table 1). Four pots (17%) have extruded lips, two (9%) have a rounded lip classification, and four (17%) have the extruded-rolled combination. One vessel (33-1) is too weathered for classification. Within the entire sample, rolled lip types appear with inslanted necks more frequently (9 vessels, 39%) than any other combination of lips and necks.

Orifice diameters were measured on rim segments greater than or equal to 5% of the entire orifice. Sherds with less than 5% of the original orifice were not considered because of the lack of their reliability in representing the entire orifice (Holley 1989). Orifice diameters—the distance between exterior rim margins—were estimated to the nearest centimeter. Four vessels were excluded from measurement because of the small percentage of orifice represented. The mean orifice diameter for the entire sample is 20 cm, 11 cm being the smallest and 38 cm being the largest (see Table 1).

Using Pauketat (1998:34), a lip protrusion (LP) measurement was taken using a hand caliper and recorded to 1/10 of a millimeter.

Pauketat’s (1998) LP index, based on Holley’s (1989) rim protrusion ratio (RPR), is the ratio of wall thickness below the lip to lip length.

“The idea behind the [lip length] index is to obtain a lip length measure while controlling for jar size…dividing the lip length by the thickness of the jar wall below the lip provides a means of standardizing lip to account for vessel size” (Pauketat 1998:34).

Throughout the Mississippian period there was a sequence of slightly protruding rims to a highly pronounced protrusion of jar rims.

From this tendency toward more protruding rims later in time, a clear change in RPR/LP values should correspond:

Early jar rims should have values closer to 1.0, that is barely protruding beyond the thickness of the wall.

An example would be a jar rim with a width of 9 mm and a wall thickness of 8 mm, resulting
in a RPR value of 0.89. Jars manufactured late in the sequence are expected to have values approaching 0.1. For example, a jar rim width of 20 mm and a wall thickness of 6 mm has a RPR value of 0.3. [Holley 1989:21]

For this study, wall thickness was taken at just below the base of the lip and the rim width measurement was taken through the length of the rim from the interior wall to the exterior wall. A total of 22 vessels from the sample were measured for an LP index; vessel 33-1 was damaged too badly to get a precise lip length.

From these measurements, the Chapman incised ceramic sample was found to have a mean LP index of 0.62 and a standard deviation of 0.12 (see Table 1). The minimum value was 0.35 and the maximum value was 0.82.

Four (17%) vessels fall below the 0.50 value, three of which are found to have extruded or extruded-rolled lips and five vessels (22%) fall above the 0.70 value, with four having rolled lips.

Design elements on the vessels were identified and placed into categories and groups (see Tables 1 and 2; Chart 1) based on Emerson’s (1989: chart 1) Ramey design categories for the American Bottom. Rim and body sherds with sufficient visible motifs were classified; that is, enough of the incised design element was present and enough diagnostic characteristics such as scrolling could be identified. As the majority of sherds within the sample only had portions of the motifs present, they were placed within the categories that best described them, and may have actually been part of a larger, unrelated motif not found in Emerson’s 12 divisions.

Categories III, VII, VIII, IX, and XI were not represented in the Chapman sample and will not be discussed. Each vessel and body sherd that could be classified is described below and their corresponding sketches can be found in Figures 3 and 4.

Six of the total number of vessels in the sample could not have their designs classified; because of the breakage pattern found on the pieces, not enough of the incised motif could be easily recognized. Vessel numbers 8-1, 33-1, 39-2, 39-3, 47-2, and 104-1 fall into the indeterminate category. With the body sherds, three out of the total group were unable to be positively classified: 36-5, 43-10, and 107-1. Although classifications were indeterminable, sketches of the above pieces can still be found in Figures 3 and 4.

Beginning with Emerson’s Category I, the basic chevron element, two vessels (9%) were found with only
this design present.

Vessel 1-2 has two lines making a V-shape, and vessel 93-2 has two parallel lines that appear to run from the top left to the bottom right of the piece, beginning near the lip. Both of these vessels appear to fall into group b of Category I.

Only a small portion of the element is visible on both of these pieces, and therefore may actually be part of a larger motif; however, the chevron best describes the design that is visible, therefore, these two vessels were placed within this category.

It should also be added that the incising on vessel 1-2 is narrower than the incising on most of the sample.

Emerson’s Category II, the arc, described the designs on ten vessels (43%) from the sample. Vessel 1-1 was difficult to classify, because only two parallel lines are visible. From the direction of these two lines it appears they form an arc, however Emerson’s arc category contains one or three lines. This vessel was then placed within Category II, based on the general form of the lines, not the number of them. With only two lines visible, this vessel may represent an entirely different design than an arc, but was best described by Category II.

Within Category II, three vessels fall within group b—33-3, 35-1, and 93-1. Vessel 35-1 is a clear example of this group, with a completely visible set of three lines in a nested-arc form (see Holley 1989). To the left side of the vessel fragment, a small portion of another arc is visible. This vessel most likely had four nested arcs incised on it around the neck in the Ramey style of quadripartite division of vessels (see Pauketat and Emerson 1991). Vessel 93-1 has half of an arc formed by three parallel lines. Vessel 33-3 has what appears to be the top portion of an arc, although the top lines do not connect. This may be an error in incising, or this may have been another design, but without more of it present, it has been categorized as an arc.

One vessel fell within the group c and three were indistinguishable between group b and c. Vessel 13-1 was categorized as group c, based on the elongated appearance of the arcs. Two arcs, but only half of each, are visible. Compared to group b, these appear to cover more area and form a more relaxed arc. Vessels 4-1, 34-1, and 47-1 all fell within the arc category, but were unable to be classified more specifically because of the lack of visible design element.

Two vessels—25-1 and 33-2—were described as having a ladder motif (see Griffith 1981; Holley 1989). These fall within group f of Category II.
These vessels show two parallel lines forming an arc with short connecting lines running perpendicular to the arc in the form of a band.

Five vessels (22%) in the sample could not be positively placed into one of the 12 categories; however they may represent a combination of categories, or a design element not seen in the American Bottom. Vessel 35-2 has two lines running parallel to each other and the rim. The lines were incised very lightly and may be the result of scraping the vessel to thin it.

If these are intentionally incised, this design might fall into Category X, groups b or d, as these two groups are the only designs with two closely placed horizontal parallel lines. Vessel 39-1 has what resembles a ladder design with lines running vertically within it and horizontal lines outside of it. This may be a combination of categories I-g and II-f; however, this design does not closely resemble any of Emerson’s groups and is most likely a locally made design element. Vessel 39-4 shows a total of 10 lines; the four inner lines create two nested V’s and the outer six lines may be the portions of nested arcs. Although more of the design is necessary to categorize it, this may be a combination of Categories I-b and II-b. Vessel 47-3 has some kind of a scroll design, but not enough is present to identify it further. Vessel 47-4 has a portion of what is most likely a nested arc on the right side of the fragment. On the left is a small part of another design that is unidentifiable. This vessel then, is a combination of Category II-b and another undefined category.

The designs found on the body sherds were slightly more difficult to categorize. Sherds with no shoulder posed the most problems and alignment of the design became impossible; body sherds with a shoulder allowed for better orientation of the design element. Only one body sherd could be positively placed into one of Emerson’s categories.

Sherd number 113-1 was classified as an arc based on the three visible lines and placed into group b of Category I.

Sherd 32-1 also has the appearance of an arc design on it; however very little of the design is present. This piece has three parallel lines that appear to be in an arcing form. Sherd 26-3 has a shoulder and a large portion of a design element. This has a horizontal line from the shoulder to the upper right area and six almost vertical lines underneath it. This design is part of a wing element (V-b,f) or a feathered scroll (IV-b,c). Sherds 4-11 and 39-17 also have what appears to be a wing or feathered scroll motif. These both have a single line with two and three lines, respectively, coming off of it. These two pieces have very little design visible, and placement into a
category could not be made confidently. Sherd 39-17 also has what might be a wing design, although the placement of the design is very near the shoulder and would not have the room needed to create the entire wing element. This piece may instead have a scroll design of some kind. Sherds 4-3 and 32-3 both have a series of parallel lines visible on them. 32-3 has a shoulder, and the lines run parallel to it. Without more of the design, these two could not be placed into a design category. Sherd 81-5 has only a small portion of a single line visible. This line is just above the shoulder and is in a V shape. Based on the design present, this may be categorized as a chevron from Category I-b.

In addition to the all characteristics described above, comments about several vessels should also be made. Vessel 47-18 has what appears to be patching on the left margin of the sherd. Compared to the vessel’s paste the clay on the broken area is a redder color, unfired, and not as smoothed over as the rest of the vessel. A few centimeters to the right of the patched area is an intentionally drilled hole through the entire wall of the vessel, possibly a repair hole.

   Vessels 1-1, 33-3, and 47-3 appear to have been incised while the vessel paste was excessively plastic. The incising has pushed through the wet clay and is visible on the interior. Vessel 8-1 has very fine incised lines, about 1-2 mm wide, which is much narrower than the incised decorations found on other vessels in the sample. Vessel 35-1 has light incising, that may be the result of scraping or smoothing the vessel and not intentionally done for decoration.

   From the Chapman incised vessels described above, several patterns emerge. For example, vessels that were incised when the clay was still wet are unslipped. The polished vessel (47-4) has visible patching, perhaps repaired because of its sacred or ritual use shown by its polished exterior. Of the seven slipped or polished vessels, four (57%) have an arc design on them, which is consistent with Cahokian designs. The one vessel (1-2) with a combination grit and shell tempering has a black slip.

   The previous sections have described the incised ceramic sample from the Chapman site. Information was provided for the entire sample, including body sherds, but concentrating on the individual vessel, of which 23 are represented. With 23 vessels recovered, a large enough sample is available so that a confident comparison can be made between Chapman, Cahokia and Fred Edwards. From this comparative analysis, a better understanding of Ramey Incised—how and why it appears at Chapman—should become apparent.
The descriptions above are the basis for the regional comparisons and will be utilized within the following section; necessary vessel information will also be given for Cahokia and Fred Edwards.

**Analysis Section**

**Inter-Site Comparisons**

For the comparisons I have made between Cahokia, Fred Edwards and Chapman, I have relied heavily on three volumes for my ceramic information. With the vast amount of material pertaining to Cahokia, I chose two excavation reports that deal with large-scale investigations within the site of Cahokia; these offer what I feel to be the best sample of Ramey from Cahokia. The utilized volumes are Pauketat’s (1998) report of the Tract 15A and Dunham Tract excavations, and Holley’s (1989) report on the ICT-II Tract.

For the Fred Edwards site, I have used Finney’s (1992) dissertation, which contains the only raw data on the ceramics from the site.

A good sample of Ramey was found, of which several underwent thin section analysis to determine their origin of production (see Stoltman 1991).

To begin a comparison if these sites, a discussion of the amount of Ramey Incised vessels found at each site must be stated.

From Pauketat (1998), the early Stirling (S1) phase ceramic assemblage has 10 Ramey jars, or 24% of the S1 jars. The late Stirling (S2) assemblage also contains 10 Ramey vessels, or 27% of the total S2 jars. The early Moorehead (M1) of the Dunham and 15A Tracts has 11 Ramey jars, or 27% of the total M1 jar assemblage. The early Moorehead is the last phase to contain any Ramey vessels. There are also seven (11%) Ramey vessels that come from the fill of post pits or features with unknown or mixed phase affiliation (Pauketat 1989:227;table 7.45).

Holley’s (1989) report shows smaller percentages of Ramey when compared to Pauketat (1998). The S1 of the ICT-II investigations contains 31 Ramey vessels, which only makes up 9% of the total S1 jars. The S2 Ramey jars number 60, making up 20% of the S2 jar assemblage. The ICT-II Moorehead phase contains a total of only 13 Ramey vessels, consisting of 5% of the total Moorehead phase jars.

The Fred Edwards site, which dates closely to that of the Stirling phase of the American Bottom, has a much smaller ceramic assemblage consisting of 295 jar type vessels. Of the total jars, 13 (4%) are Ramey.
Incised (Finney 1992).

The Chapman site contains slightly more Ramey Incised vessels (23); however, a complete analysis has not been finished to determine the entire number of jars and vessels found at the site, so no percentages of Ramey have been calculated for Chapman.

A look at temper material of Chapman’s Ramey compared to the other two sites shows obvious similarities.

Based on Pauketat (1998: tables 7.29, 7.36, 7.37, and 7.45), all of the Ramey found in the 15A and Dunham Tract excavations has shell tempering.

Holley (1989) does not provide specifics for each Ramey vessel, but does state that shell temper predominates in the entire ceramic assemblages within the early and late Stirling phases and in the Moorehead (91.7%, 93.8% and 89.8% respectively).

The Ramey assemblage from Fred Edwards contains 12 (92%) vessels with shell tempering and only one without.

This latter vessel contains a grit temper and is thought to be a locally made vessel based on the unusual temper and narrow incising (Finney 1992).

The Chapman site Ramey sample is composed of 22 (96%) vessels with shell temper and one vessel (1-2) with a combination grit and shell temper.

The overall similarity of the temper material and predominance of shell in these three sites should come as no surprise, as shell temper dominates the Mississippian ceramic assemblages (Pauketat in press; n.d.). Finney (1992:127,131) does find a higher percentage of shell to clay in imported vessels and larger shell particles in locally made vessels.

Without thin sectioning and point counting, it is difficult to determine similarities between Fred Edwards and Chapman, in terms of the ratio of temper to clay.

There is, however, an interesting similarity in the single vessel containing grit temper found at Fred Edwards and Chapman and the narrow incising on both.

The vessel from Chapman may have been locally made based on Finney’s (1992) conclusion that the grit-tempered vessel at Fred Edwards was a local copy of Ramey.

The use of a slip or polish on the vessels is also a good indicator of local or exotic origin. Eight Chapman vessels (35%) were slipped.

It is possible that a slip was present on other vessels at one time and was reduced or removed by post-
depositional processes.

At Cahokia, slipping appeared on almost all (95%) of the Ramey vessels, which include Stirling through Moorehead phases (Pauketat 1998: tables 7.29, 7.36, 7.37, and 7.45). Only two Ramey pots were found to have plain exteriors of which one was questionable. Holley (1989) only shows general amounts of slipping for the entire jar assemblages during each phase.

S1 is dominated by slipping/smudging (89.3%) on identifiable jar surfaces, S2 has predominantly dark-colored slips on jars, and the Moorehead phase has a wide variety of surface treatments on jars, although no real numbers are given.

At Fred Edwards, eight (62%) Ramey vessels have a slip. Through Stoltman’s (1991) petrographic analysis of the Fred Edwards ceramics, Finney (1992:127) finds that only the imported vessels are slipped. Based on this finding, one could conjecture that the slipped vessels from the nearby Chapman site were also imported, possibly from Cahokia.

An interesting vessel when looking at exterior surface finishes is 47-4. This is the pot that has evidence of repair on its broken margin and also has a lip on it. The repair that was made may have been because of the ritual or economic value of this pot, as it was exported in most likely from Cahokia.

A comparison of lip types was also done for the three sites. This, however, became difficult as different classes were used at different sites, if used at all. Pauketat (1998:33) does not use categories for rim or lip shape because these “categorical lip and rim variables …collapse into arbitrary divisions.” Although, using the criteria set forth in the description of the Chapman ceramics, a look at the 15A and Dunham Tract Ramey profiles does give some information about lip types. For this assemblage I only used two classes of lips—rolled and extruded—because without looking at the actual rim sherds, classifying lips became subjective. Nonetheless, a pattern does seem to exist in this assemblage. Throughout the S1 and S2 phases rolled lips were seen on the majority of Ramey vessels. Then, in the M1 phase, extruded lips became the majority.

Holley (1989) uses rim classifications and not lip types, as was done here, to describe the upper margin of the vessels.

These were then placed into several categories: rolled, extruded, everted, angled, unmodified and combinations of these. This assemblage, then, could not be used for rim comparison.

The Fred Edwards Ramey assemblage contains 11 (85%) vessels with rolled lips and the remainder
having everted lips.

The Chapman assemblage also contained a majority (12, 52%) of rolled lips on the vessels. The remainder then were rounded (2, 9%), extruded (4,17%), and extruded-rolled (4,17%). A comparison was made of Chapman to the 15A and Dunham Tracts Stirling phase Ramey, as this was the main phase that the Upper Mississippi River Valley sites are said to have been in contact with Cahokia (Stoltman 1985). With this comparison, it is apparent that Cahokia, Fred Edwards and Chapman all have the majority of vessels with rolled lips.

Also, five (63% of slipped jars) Chapman vessels with rolled or extruded-rolled lips occur with slipping. This is supports the idea that the Chapman slipped vessels were imported, as slipping and rolled lips were both in favor at Cahokia during the Stirling phase.

Rolled or extruded-rolled lips also appear on eleven (48%) vessels with plain exteriors. These may represent local attempts at reproducing Ramey, as the popular rolled lip type was used, but without the slip commonly found at Cahokia.

A measurement of lip protrusion (LP) was also made on all rim sherds from Chapman following Pauketat (1998).

The mean was then compared to the 15A and Dunham tract excavations covered by Pauketat (1998), as well as Holley’s (1989) ICT-II investigation.

Holley, however, uses the rim protrusion ratio (RPR), which under a different name uses the same basic measurements used on the Chapman ceramics and the 15A and Dunham tracts. A confident comparison could be made between Chapman and Cahokia based on these measurements. There has been no analysis done for LP or RPR on the Fred Edwards ceramics and therefore was not utilized for this comparison.

There is an obvious increase in lip protrusion, seen in a decrease in LP index, through the Mississippian period and can be seen here with the phases that coincide with the inhabitation of Chapman. This decrease in LP index can be seen with Pauketat’s (1998) means of 0.65, 0.55, and 0.47 for all jars from the S1, S2, and M1 phases respectively.

Holley’s (1989) measurements also show this, but with smaller means of 0.54 (S1), 0.48 (S2), and 0.42 (Moorehead).

A look at only Ramey Incised vessels from these two analyses shows means of 0.52 (Pauketat 1998) and 0.44 (Holley 1989).

These two means, as well as the numbers for the individual phases show variation between the two
investigations; Pauketat’s numbers are consistently higher than Holley’s. The two do show the same general
decrease through time and the same similarities when compared to Chapman.

The mean LP for the Ramey sample from Chapman is 0.62, higher than both numbers for the Ramey
from Cahokia.

There is a large difference between Holley’s 0.44, and a smaller, but still significant contrast to Pauketat’s
0.52.

A comparison of LP means for Ramey of each phase was done using Pauketat (1998: tables 7.29, 7.36, and
7.37), this information was not available from Holley (1989) and could not be included. For each phase that
corresponds with Chapman the means are as follows: 0.63 (S1), 0.50 (S2), and 0.41 (M1). The S1 phase
shows an interesting similarity to the overall mean of the Chapman Ramey—a difference of only 0.01. From
this, it is possible to conclude the Ramey at Chapman was made during the early Stirling phase of American
Bottom prehistory.

A look at the LP mean of only the slipped pots from Chapman (n=8), also produced an interesting
similarity to Cahokia.

The mean of the Chapman slipped pots is 0.51, while the mean of all the Ramey from the 5A and Dunham
tracts (n=31) is 0.52 (Pauketat 1998).

With slipping so prevalent at Cahokia and the Chapman slipped pots having an almost identical lip protrusion
mean compared to Cahokia, it becomes more probable that these pots came from Cahokia. This is further
supported with the unslipped Ramey pots from Chapman having a much different LP mean than the
Cahokian Ramey.

The mean of 0.64 (n=14) is significantly larger than Cahokia’s 0.52 and may be a result of local production.

Comparisons of design elements found on the Ramey from each site became problematic. There are
no set categories of motifs and the names used to describe them are infinite. To try and solve this, I
attempted to find the most common design elements at Cahokia using the available drawings and
photographs. The Fred Edwards site had far fewer vessels and was summed up easily.

The design motifs on the Fred Edwards Ramey consisted of “inverted V’s or U’s, climbing ladder,
and interlocking scrolls” (Finney 1992:131).

This is comparable to the Ramey assemblage at Chapman; all motifs mentioned by Finney were found on the
Chapman Ramey, with U’s being most common.

Based on Pauketat (1998) and Holley (1989) the most common motifs at Cahokia are nested chevrons, nested
arches, nested lines, ladders, scrolls, radiating lines, arcs with radiating lines, diamonds, and forked eyes. Of these, only diamonds and forked eyes are not seen at Chapman. There are, however, designs at Chapman not seen at Cahokia.

Vessel 39-1 (see Figure 3) has an unusual feathered design not seen at either Cahokia or Fred Edwards. This vessel is slipped, however, and may be a Cahokian vessel made for export to Chapman.

One unusual design or style, however, is certainly not enough to base a discussion of regions of production or trade. As Rice (1987:245) notes, “styles are open rather than closed systems of expression,” and one would expect some variability “because there is usually a range of alternatives from which choices can be made and some flexibility in their application.” A connection between Cahokia and Chapman seems likely, however because both areas have the same frequently used designs. Unusual designs such as vessel 39-1 may have been made at Chapman and a design unique to that area applied, or it may have been made at Cahokia with that design especially for export to another settlement within the Cahokian cultural sphere.

Another interesting note on designs is that several rim sherds (n=3) and body sherds (n=3) show the incising was done on extremely plastic clay (see Tables 1 and 2). This is seen on the interior of the vessel where the design was applied.

When the design was trailed into the vessel, the clay was still rather wet and the design can then be seen coming through on the interior.

With Ramey from Cahokia, the designs were applied when the vessel was leather-dry (Pauketat 1998:195). This means the clay was hard enough to keep the design from being pushed through the clay and being visible on the interior. All six sherds with the incising applied to wet clay have plain exteriors. Plain exteriors coupled with a different technique of incising also point to a local production of these vessels.

Discussion

Based on comparisons of the three sites made above, a distinct pattern begins to emerge regarding the location of production and contact.

The Ramey found at Chapman is indicative of contact with or a connection to Cahokia. A closer look at the pots compared to Cahokia gives a good idea of the type of contact happening. A comparison to Fred Edwards helps to understand the regional contact of the Upper Mississippi Valley.
With 95% of the Ramey from Cahokia showing a slip (Pauketat 1998) and the conclusion that at Fred Edwards all the imported pots were slipped (Finney 1992), it is possible to better understand the Ramey at Chapman.

If the Ramey pots from Chapman follow the same pattern, then a number of the vessels were imported from Cahokia.

Vessels at Chapman with rolled lips also support the idea of contact with Cahokia, and that people were trying to emulate the Cahokian Ramey, using the same lip style. The fact that more Ramey pots have a rolled lip type than other types during the early and late Stirling at Cahokia (Pauketat 1998) may help to understand the time period of interaction between the two regions. Chapman’s Ramey also has mostly rolled lips and may be a result of contact during the early and late Stirling.

Lip protrusions also play a role in establishing a time period, as well as type of contact. The total Ramey pots at Chapman have an mean LP of 0.62, similar to the mean of the total jars at Cahokia (0.65) during the early Stirling (Pauketat 1998).

This may be evidence of contact during the early Stirling, because of the similarity in lip style. The mean LP of only slipped pots from Chapman also help to establish that there was contact with Cahokia. The mean LP of the Ramey from Cahokia (0.52) and the mean of the slipped Ramey from Chapman (0.51) are very similar to one another, and further support evidence for the trade or import of pots from Cahokia at Chapman.

Unslipped pots at Chapman show a much higher LP (0.64) than Cahokia’s Ramey (0.52), and indicate local production.

Design elements pose a problem when deciding area of production because they can vary so much; however, techniques of applying designs do give some insight.

The vessels at Chapman with the incising applied to very plastic clay point to local copies of Ramey, as this is not seen at Cahokia.

All sherds with this characteristic are also unslipped, further supporting the local production of these vessels.

A distinction of local versus non-local vessel production helps to better understand Chapman within the framework of contact and interaction with Cahokia.

Chapman can then be seen as having direct contact with the people at or from Cahokia or having been
influenced indirectly by the movement of pots and ideas out of Cahokia.

**Conclusion**

*Locations of Manufacture*

The Mississippian period was a time of major changes in the lives of prehistoric people in the Eastern United States, which included changes in subsistence, housing structure and religious beliefs (Emerson 1997). Within this period, Cahokia came to rise as a major political and religious center in the lives of people in the Mississippi River Valley (Pauketat 1994).

Around AD 1050, Cahokia reaches its largest population with around 10,200-15,300 people (Pauketat and Lopinot 1997:115).

Shortly following this major growth at Cahokia, Ramey Incised pottery appears at around AD 1100 (Emerson 1997).

Ramey also appears in the Upper Mississippi River Valley at sites such as Chapman and Fred Edwards around AD 1100.

With the discovery of Ramey Incised at Chapman, issues emerged concerning how this style of pottery appeared so far north of Cahokia.

To better understand this, a preliminary analysis was conducted to determine the location of production of the Ramey found at Chapman. The vessels were studied in terms of a local or non-local manufacture.

Non-local production refers to vessels that were made at Cahokia. These vessels have all the characteristics of Ramey found at excavations conducted at Cahokia. These pots may have arrived at Chapman through trade with Cahokia or settlements in contact with Cahokia. Local production refers to Ramey vessels made at Chapman or nearby settlements in the Upper Mississippi Valley. These pots show clear indications of emulation of Cahokian vessels.

Differences in style, designs and the technology used to produce the pots set these apart from Cahokian-made Ramey.

To get at where the Ramey vessels found at Chapman were made, a detailed analysis was conducted on the incised vessels from the site.

These were then compared, using several variables, to Ramey collections at Cahokia and the Fred Edwards
From this analysis and comparison, it is argued that the Chapman collection consists of a combination of local and non-local manufacture of Ramey vessels. The Chapman site has evidence of actual Cahokian Ramey vessels, as well as local imitations that are made differently than the imported pots.

An exterior slip has proved to be a critical variable in determining local versus non-local manufacture.

The Ramey Incised vessels produced at Cahokia have a slip, supporting non-local production, whereas Chapman-made Ramey does not. Unslipped jars, in this case, appear to be local attempts to re-create Ramey.

Further support of non-local production comes from measurements of lip protrusion. The LP mean of Chapman’s slipped pots is almost the same as Cahokia’s Ramey Incised vessels from the 15A and Dunham tract excavations. The unslipped pots at Chapman have a much higher LP mean (a difference of 0.12), and therefore indicate a local production and emulation of Ramey Incised.

A final manufacturing attribute in support of the manufacture of unslipped Ramey at Chapman is the manner in which the incised lines were created. It appears that the incised lines of the Chapman Ramey were made while the clay was very plastic because the impressions of the designs are visible on the interior surface. This is evidence of local production because the potters either did not know the Cahokian method for making the vessels or they purposefully making it differently.

From the analysis and comparisons done in this study, it can be seen that the Ramey vessels found at Chapman were produced both at Cahokia and locally. These different locations of manufacture have important implications as to how the pots arrived at Chapman.

With non-local vessels, the Chapman site can be seen as a settlement with connections to Cahokia. Chapman and Cahokia may have been involved in a long distance trade of exotic items. As Chapman exported items to Cahokia that were unavailable in the south, such as galena, Cahokia would have exported exotic goods that were unattainable in the north, such as sacred pots. People from Cahokia may have traveled to Chapman to trade these important vessels, or people from Chapman may have been traveling to
the south to attain these pots. There may have also been a down-the-line trade for these pots. Chapman may have been trading with other settlements for these Cahokian vessels and did not get them directly from Cahokia.

A movement of people from the Cahokia region to the Upper Mississippi Valley could also explain the appearance of Cahokian Ramey at Chapman. During the Stirling phase of American Bottom prehistory, Ramey is created (Milner et al. 1984) and there is also a decline in the population (Pauketat and Lopinot 1997). These people may have moved out of Cahokia and into sites such as Chapman.

Along with exportation or trade of pots, there would have also been a spread of the idea behind Ramey. Ramey became most abundant at Cahokia around the same time it reaches Chapman. As this pottery style became more widely used, more people in a wider geographical area would have seen or heard about it and attempted to re-create it as part of the shared religious and ritual system. This would result in a local production of these pots.

Perhaps the inhabitants of Chapman heard of these sacred vessels and began trading with Cahokia for them. Once they had a few Cahokian vessels, they attempted to create their own version of Ramey.

Another possibility is that these locally manufactured pots were made somewhere other than Chapman. Other large sites in the Upper Mississippi Valley region could have been reproducing the pots and then trading them to sites such as Chapman and Fred Edwards.

The Ramey vessels from Chapman are found to have different areas of manufacture based on their characteristics. This conclusion has interesting implications regarding the arrival of these pots at Chapman. Several inferences can be made at this time, but further research and analysis on the Chapman ceramics is necessary to better understand how these pots arrived in the Upper Mississippi River Valley.

**Further Research**

Additional research on the production and use of Ramey at Chapman is necessary. Petrographic analysis is being undertaken on the Ramey vessels from Chapman to shed further light on their origin of production, whether local or non-local. This will hopefully support the conclusions made here and will also help to better identify the local areas of production.
If one is to understand the role of Ramey pottery at Cahokia and outliers like Chapman, we must develop a clear understanding of how these vessels were used, a use-alteration analysis needs to be done on the Ramey vessels (see Skibo 1992). Analyses of exterior sooting and interior carbonation can determine if the pots were used for cooking over an open fire or near the fire. I would also recommend that a residue analysis be performed on a sample of pots, which could determine the prehistoric contents of these vessels.

A look at the distribution of the Ramey pots at Chapman will also help interpret activities. If pots occur in only one area of the site, this may be a result of ceremonial activities occurring there, while pots showing up in every house would point to everyday use of the pots.

The Chapman site was an area of major interaction with sites in the area and as far away as Cahokia. Further analyses of the Chapman site will lead to a better understanding of the prehistory of the Upper Mississippi Valley and Cahokia. Through knowledge of the trade of prestige goods and the movement of people a better picture of Chapman and the Upper Mississippi Valley can be drawn. The extent of Cahokian influence can also be better understood by studying these sites so far north that have Cahokian goods in such relative abundance.
(Modified from Stoltman 1985)
Figure 1. Categories of Designs on Cahokian Ramey.  
(Modified from Emerson 1997)

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[1] The dates given here are for the general time frame of Mississippians throughout the eastern United States and will differ within specific regions.


[3] An undecorated predecessor of Ramey Incised having the same basic style without the presence of incised lines (Griffin 1949).

[4] Interior surfaces were noted but not discussed further because all of the vessels within the sample exhibited plain interiors.

[5] Vessel 33-1 has been badly burned, resulting in the organics in the clay being disintegrated and the piece being very lightweight and porous. Damaged so badly, this piece could not be used in most analyses.