DETECTING PREFERENCE IN THE 
ARCHAEOLOGICAL RECORD: A STUDY OF GLASS TRADE 
BEADS AMONG THE NATCHEZ INDIANS 

by 
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ABSTRACT

A previously undocumented sample of over 13,800 glass trade beads from historic Natchez Indian sites in Adams County, Mississippi was classified and 52 separate varieties were identified. The data were then analyzed in order to examine variation between six Natchez settlement districts, or village areas. Ethnic and political differences are known to have existed between these districts, so the study sought to explore how this might have affected the use of glass beads. Settlement district assemblages were evaluated on the basis of diversity of bead varieties, frequencies of bead construction methods, and frequencies of beads by color. Statistically significant differences were found to exist, suggesting that these distributions were not the result of chance. Disparities in the occurrence of blue and white beads between French and English-allied districts were particularly pronounced. Since the settlement districts are comparable in time and geographic location, and had roughly equal access to trade beads, it is argued that these differences in bead assemblages were the result of specific group preferences, perhaps relating to political factions within the Natchez chiefdom.
**LIST OF ABBREVIATIONS AND SYMBOLS**

<table>
<thead>
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<th>Symbol</th>
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<tr>
<td>$\hat{D}$</td>
<td>Index of dispersion for nominal data: the probability that a pair of independently selected cases will come from different classes</td>
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<tr>
<td>$df$</td>
<td>Degrees of freedom: the number of values that are allowed to vary</td>
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<tr>
<td>$p$</td>
<td>Probability that an observation occurred by chance alone</td>
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<td>$Z$</td>
<td>Standard score, or the number of standard deviations an observed value is above or below the mean</td>
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<tr>
<td>$\alpha$</td>
<td>Level of significance, or the threshold value at which the null hypothesis is rejected</td>
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<tr>
<td>$\Sigma$</td>
<td>Summation</td>
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<tr>
<td>$\chi^2$</td>
<td>Chi-square: a statistical test for independence comparing observed data to the chi-square distribution under the assumption that the null hypothesis is true</td>
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ACKNOWLEDGMENTS

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CHAPTER 1

INTRODUCTION

Out of the scores of trade goods brought to North America by Europeans, there are perhaps few objects that have garnered as much interest as glass beads. Though beads might seem to be small and insignificant items, their near ubiquity across historic Native American sites attests to their popularity and countless historic documents reveal that they were highly desired in native communities, with the right colors and styles fetching a handsome price. Glass beads were a vital component of diplomacy, alliance, and trade between Europeans and Indians in the early history of North America. They were staples of colonial exchange and were also routinely given to Indian leaders as part of diplomatic gifts intended to reinforce friendly relationships with Europeans.

Beads are often studied in the context of exchange, addressing questions like when beads were traded and with whom (Loren 2009:112-113). Since many varieties of beads can be linked to a specific time period of manufacture or trade, a large portion of archaeological research on glass beads has been devoted to the establishment of bead chronologies (e.g., Blair et al. 2009; Brain 1979; Brown 1979; Good 1972; Little 2010; Marcoux 2012; Smith 1983, 2002b; Stone 1974). As objects of personal adornment, however, archaeologists have also recognized the potential glass beads have to further our understanding of how material culture may relate to issues of individuality and identity (e.g., Heath 1999; Loren 2009; Malischke 2009; Spector 1976; Stine et al. 1996).
As will be discussed further in Chapter 3, historical documents reveal that native consumers often exhibited preferences for certain colors and styles of beads. While individual taste would be hard to detect archaeologically, many of these preferences existed at the regional or tribal level. Therefore, it stands to reason that patterned variations due to preference may be present in glass trade bead assemblages within the archaeological record. Taking that into account, this study seeks to evaluate variation among glass beads from historic Natchez Indian sites to explore possible causes for variation (or lack thereof).

Once located in the Natchez Bluffs region of southwestern Mississippi, the Natchez were a powerful polity during the early decades of European contact in the Lower Mississippi Valley. Their existence in the historic period lasted from the late 1600s until the breakup of the chiefdom in 1731. During that time, the Natchez chiefdom was organized into six primary settlement districts—separate village areas headed by secondary chiefs. Ethnically, the settlement districts varied because two of the districts had been settled by immigrant Indian groups adopted by the Natchez. Politically, the districts were split three and three between their allegiance to Europeans, half being pro-French and the other half being pro-English. These ethnic and political differences have been previously linked to variations in material culture (Brown 1985), so it is therefore hypothesized that there will be patterned differences in the specific varieties of glass beads associated with the settlement districts. This hypothesis asserts that preferences for certain bead colors and types existed between the ethnic or political divisions of the districts, and that these variations are detectable in the archaeological record. Obviously differences in bead color or styles could be the result of other factors like time, location, and access to trade beads. However, all of these things are roughly equal among the Natchez settlement districts, so it is
Figure 1.1. Location of sites included in study (adapted from Brown 2011).
argued that significant variations may be a reflection of preference. These preferences are essentially expressions of style. Though style is a rather abstract concept, archaeological theorists have demonstrated how analyses of stylistic variation can be helpful in delineating specific social units and contexts, including ethnicity (Conkey 2009:6-15).

Data for the study are derived from a sample of 13,883 glass trade beads from 20 historic Natchez sites (Figure 1.1). Over 13,400 of the beads are from Robert Prospere’s private collection, the largest collection of Natchez glass trade beads in existence. All of the beads have been counted and classified by the author and bead assemblages from the various settlement districts will be evaluated in terms of diversity and the frequencies of various bead construction methods and colors. The findings of this project will add to our understanding of Natchez settlement districts and their ethnic and political divisions; furthermore, the classification of this sizable sample of beads will contribute to the knowledge of glass beads in the Natchez region and the Southeast.
CHAPTER 2
A HISTORICAL AND ARCHAEOLOGICAL OVERVIEW OF THE NATCHEZ INDIANS

The Natchez were a powerful chiefdom that played a pivotal role in the story of early European contact in the Lower Mississippi Valley. The Natchez territory was bounded to the west by the Mississippi River and had settlements that stretched out along the region surrounding St. Catherine Creek (Neitzel 1997:9). This area is now part of Adams County, Mississippi, where the present day town of Natchez is located. The prominence of the Natchez chiefdom and its position along the Mississippi brought European visitors and residents to the Natchez, including explorers, missionaries, merchants, and settlers. Many of these people documented their time there, leaving behind a wealth of historical data on Natchez culture and history. What is known of the Natchez, both historically and archaeologically, could fill volumes (and indeed does), so what is provided here is merely a brief sketch of these people in hopes of providing the reader with a basic context for understanding the aims and results of this study.

Lifeways

Much like their ancestors, the Natchez lived in permanent settlements along the fertile loess bluffs that now bear their name (Brain 1978:334; Neitzel 1997:9). They subsisted on standard southeastern crops including corn, beans, and squash, though corn was the main agricultural staple. To supplement their domesticated crops, women gathered and cultivated wild nuts, seeds, and fruits, while men hunted game like deer, turkey, and bears (Galloway and
Jackson 2004:600-601). Once sustained European contact was made, the Natchez also devoted considerable time to obtaining and preparing deerskins to trade with colonial merchants. Their houses were made of wattle and daub and typically had rectangular walls and rounded roofs (O’Neill 1977:137). Several different colonial French accounts made attempts at estimating Natchez population, but they vary widely, indicating anywhere from 200 to 4,000 warriors (Le Page du Pratz 1763:II:146; McWilliams 1981:125; Mooney 1899:510; Swanton 1998:40). Combining information from these accounts, Swanton (1998:43) estimates the population in 1698 to have been around 3,500.

Politically, the Natchez were a complex chiefdom born of the Mississippian cultural tradition. They are recognized as being the only such chiefdom in North America to have survived well into the Contact period, although they may have been less centralized than their Mississippian predecessors (Usner 1998:15). The Natchez polity was ruled by the Suns, which was an elite hereditary class with significant authority. The Great Sun was the supreme chief and wielded both political and religious power. His brother, the Tattooed Serpent, also had great power, though primarily in times of war (Galloway and Jackson 2004:604). Many European chroniclers credit the Great Sun with near absolute control over the Natchez people (Le Page du Pratz 1763:II:184; McWilliams 1953: 89; O’Neill 1977:141; Thwaites 1900:129), but a council of elders and warriors existed to advise the Great Sun and may have mitigated some of his powers (Swanton 1998:107). Beneath the Great Sun and Tattooed Serpent were many subordinate chiefs who presided over other Natchez villages. These villages, or settlement districts, will be enumerated and discussed in greater detail in the next section.

Settlements in the chiefdom were hierarchical and ranged from simple hamlets to a complex ceremonial mound center. The paramount ceremonial center of the Natchez was the
Grand Village. Despite its designation as a village, residence at the site was limited to only the Great Sun, Tattooed Serpent, and associated personages. To fulfill its function as the axis of Natchez religious and ceremonial life, the Grand Village had two earthen platform mounds and a central plaza. The Great Sun’s house stood atop one of the mounds, and the temple that served as an ossuary and site of the sacred fire stood atop another (McWilliams 1953:90-91; O’Neill 1977:140; Thwaites 1900:123-126). A third mound also exists at the site, but it was not used during the historic period. It’s possible that it was abandoned due to erosion of its base by St. Catherine Creek (Neitzel 1997:15-16). Other ceremonial centers existed within the chiefdom, but none were as historically important as the Grand Village. The smallest settlements among the Natchez were the dispersed hamlets where the majority of the Natchez population would have resided. A hamlet would have consisted of several houses, usually located near agricultural fields (Brown 1985:6; Galloway and Jackson 2004:598, 601).

The social structure of the Natchez was based upon an exogamous matrilineal kinship system, and has been the subject of much interest and debate throughout the years. Natchez society was divided into two main classes: the nobility and commoners (also referred to as stinkards or puants). Suns, Nobles, and Honored People were ranks assigned within the noble class (Le Page du Pratz 1763:II:202; Swanton 1998:107). Commoners were the lowest class and rank and represented the majority of the population, while the Sun rank was the highest and most exclusive. The Sun rank was strictly hereditary, though the rank of Noble or Honored Person could be inherited or earned (Le Page du Pratz 1763:II:203). Nobility were only allowed to take spouses from the commoner class, and though the marriage did not elevate the rank of the commoner spouse, their children would be considered nobility if they were born to a Sun or Noble rank parent (Le Page du Pratz 1763:II:203-204; McWilliams 1953:89-90; Swanton
Descent was traced in a matrilineal fashion, so children were given the social rank of their mother. If the mother was a commoner, however, the child was given a rank one below that of the father. The above model was pieced together from French accounts and originally presented by Swanton (1998:107), but the accuracy has been called into question by more recent scholars. Most notably there exists the so-called “Natchez paradox,” which posits that the social system outlined by Swanton would be a biological impossibility because the specified marriage patterns would deplete the commoner class and create an overly large noble class (Brain 1971:217; White et al. 1971:371). Despite the uncertainty of some of the details, Galloway and Jackson (2004:603) suggested that Natchez kinship is essentially an exogamous moiety system, whereby the nobility and commoner classes functions as ranked clans, meaning that a member of one class (or clan) was required to take a spouse from the opposite class.

**Settlement Districts**

Since the Natchez settlement districts are of central importance to the study at hand, they are treated in some detail here. Original French sources referred (with varying specificity) to several different Natchez villages, each led by secondary chiefs who answered to the Great Sun (Foster 2003:108; McWilliams 1953:84-85, 88-89, 1981:72-73) The term “village” is a bit misleading though, because the unit it refers to actually covered a fairly large territory that included several hamlets and a minor ceremonial center (Brown 1985:5-6; Swanton 1998:46). For this reason, settlement district is a more apt label and better conveys the size and scope of the communities being discussed.

Early French accounts, including those of Iberville, Pénicaut, and de Montigny, mention anywhere from eight to twelve separate Natchez villages (McWilliams 1953:83-85, 1981:72-73;
Swanton 1998:45-48), but after 1700 the number listed in French historical records was generally reduced to only five (Albrecht 1944:74; Barnett 2007:41, 81). The five settlement areas evidenced in historical documents are the Tioux, Grigra, Grand Village, Flour, White Apple, and Jenzenaque districts (Figure 2.1). The remainder of this section will offer a brief discussion of the settlement districts.

Figure 2.1. Location of Natchez settlement districts (after Brown 1985:Figure 3).
The Tioux and Grigra districts are named for two small groups of Indian refugees who settled among the Natchez. Beginning in the protohistoric period and continuing into the historic era, Native groups throughout the Lower Mississippi Valley (and the larger Southeast) suffered great stress, including epidemic disease, polity collapse, warfare, and the Indian slave trade perpetrated by the English. These societal upheavals led to significant demographic shifts in the region as fragmented populations began to migrate from their homelands and seek support among other polities (Brain 1978:357-358; Milne 2009:394; Smith 2002a:3-8, 18-19). Archaeological evidence suggests that the protohistoric ancestors of the Natchez (known as the Plaquemine culture) endured significant reductions in population and geographic territory, but managed to remain in the Natchez bluffs region (Brain 1978:358; Le Page du Pratz 1763:II:146-147). As one of the only major polities not forced out of their homeland during this period, the Natchez attracted refugee groups who eventually settled with them and became part of the chiefdom (Smith 2002a:18).

The Tioux and Grigra, both members of the Tunican linguistic family, were the two primary immigrant groups noted to have settled among the Natchez. They had arrived at the Natchez by at least 1700, though the adoption of the Grigra is reported to have predated that of the Tioux. The Tioux likely came from the Yazoo Basin to the north, and while the same is suspected of the Grigra, their original location is uncertain (Swanton 1998:33, 335-336). Clues about the Tioux and Grigra prior to their migration can be found in the writings of Le Page du Pratz (1763:II:145-146):

Two small nations lived as refugees among the Natches. The most ancient of these adopted nations were the Grigras, who seem to have received that name from the French, because when talking with one another they often pronounce those two syllables, which makes them be remarked as strangers among the Natches, who, as
well as the Chicasaws, and all the nations that speak the Chicasaw language, cannot pronounce the letter R.

The other small nation adopted by the Natches, are the Thioux, who have also the letter R in their language. These were the weak remains of the Thioux nation, formerly one of the strongest in the country. However, according to the account of the other nations, being of a turbulent disposition, they drew upon themselves the resentment of the Chicasaws, which was the occasion of their ruin; for by their many engagements they were at length so weakened that they durst not face their enemy, and consequently were obliged to take refuge among the Natches. (sic)

Once among the Natchez, the Tioux and Grigra were adopted into the commoner class of Natchez society and lived in their own respective settlement districts. The Tioux settled on the western side of the Natchez territory, to the south of St. Catherine Creek a few miles southwest of the Grand Village district. The Grigra district was located farther up St. Catherine Creek to the northeast of the Tioux area. The fact that these groups remained in distinct districts suggests that a certain degree of cultural and political independence was maintained. This is not surprising since they were with the Natchez for a relatively short amount of time, having arrived only a few decades before the dispersal of the chiefdom (Milne 2009:394).

The remaining settlement districts are believed to have been inhabited by native Natchezans. The Grand Village district bears the name of its primary site, which was the Grand Village of the Natchez. The area is situated in the southwest portion of the Natchez territory along St. Catherine Creek near where the creek meets the Mississippi River. Frenchmen travelling up and down the river who stopped to visit the Natchez were typically brought to the Grand Village, which was not only home of the Great Sun, but also had the convenience of being located near the primary river landing. Therefore, it is the Grand Village and its surrounding area that is most often described in historical accounts. The Flour district was located just across St. Catherine Creek from the Grand Village. Farther up St. Catherine Creek, to the northeast of the
Flour and Grand Village districts was the White Apple district. The Jenzenaque district was situated even farther east along Fairchilds Creek and was sometimes called the Village of Walnuts or Hickories in historical accounts (Swanton 1998:47-48).

With both French and English traders vying for Natchez allegiance in trade, the settlement districts split into two political factions, influenced partly by their geographic locations. The Grand Village, Flour, and Tioux districts were nearest to the Mississippi, and thereby in closest contact with the French. These districts gave their economic support to the French by trading with them, and helped the French secure their own political interests among the Natchez. At times, this meant mediating with the other settlement districts when they became hostile toward the French. The Jenzenaque, White Apple, and Grigra districts, however, were closer to English traders arriving via the Natchez Trace trade route (Crane 1956:133). In many instances these districts harbored resentment against the French, which sparked conflicts that would eventually lead to the infamous massacre at Fort Rosalie and the subsequent disintegration of the Natchez polity. Specific dealings of the settlement districts with Europeans will be addressed in the following section.

**Interaction with Europeans**

The existence of the Natchez chiefdom in the historic period was relatively brief, lasting only about 30 years, but their prominence, power, and location on the Mississippi River meant that they had an important place in the early history of the Lower Mississippi Valley. Their interactions with Europeans included everything from encounters with explorers to their lands being colonized by the French. From these experiences come many written accounts of the Natchez in journals, letters, manuscripts, and official colonial documents. The result is a
multifaceted and complex history that elucidates the political and social adaptations of a native society in a rapidly changing colonial landscape. What is related here is a necessarily condensed version intended to orient the reader with the basic historical position of the Natchez chiefdom.

Early interactions between Europeans and the Natchez occurred somewhat casually. Commerce was carried out in a “free-lance” manner by French and Canadian woodsmen and trappers who used the Natchez region as a waypoint between French settlements in Canada and on the Gulf Coast (Albrecht 1946:332; Barnett 2007:52; Milne 2009:395-396). Most European goods coming into Natchez territory were shipped to the colonies of Mobile or New Orleans on the Gulf Coast, then were trekked upriver by traders. In return for their wares, the French received valuable deerskins from the Natchez, but likely also bartered for food and other necessities. This informal (and undocumented) style of trade and interaction characterized the late protohistoric period before sustained contact was made near the turn of the eighteenth-century.

The first recorded European contact with the Natchez appears in the accounts of an expedition headed by explorer René-Robert Cavelier, Sieur de La Salle. In service of the French, La Salle journeyed from the Great Lakes region down the Mississippi River to the Gulf of Mexico. The expedition reached the Natchez in March of 1682. Once there they stayed at a village three leagues inland from the river, where they met with a Natchez chief (Brain 1982:51-52; Cox 1922:142-143; Foster 2003:108; French 1846:47, 62-63). Chiefs of other villages, or likely what has been referred to herein as settlement districts, were invited to join them, but had not arrived by the time that La Salle’s party was ready to continue down river, so the expedition left without meeting them. La Salle’s failure to stay and smoke the calumet with the other chiefs may have offended the Natchez, because he found them to be hostile on his return journey back
up the river (Foster 2003:120-121; French 1846:64-65; Swanton 1998:219). In the vicinity of the Natchez, La Salle and his men also reported meeting with a group called the Koroa (Cox 1922:143; Foster 2003:109-110; French 1846:47). Evidence suggests that the Koroa might have actually been the Tioux immigrant group living with the Natchez (Brain 1982:53-54). So while La Salle had only a fairly brief encounter with the Natchez (and possibly the Tioux), the records of his journey do provide some details on the Natchez as they existed in the late seventeenth-century. It is clear that at this time there were multiple Natchez “villages” with separate chiefs. If La Salle met with the Great Sun (which seems likely), then the failure of these other chiefs to respond to the Great Sun’s request to come smoke the calumet with La Salle might imply that the secondary chiefs were already acting of their own political will and defying the authority of the Great Sun, or that some of the districts were already opposed to the presence of the French (Barnet 2006:41).

In 1699, and again in 1700, the Natchez were visited by the expedition of Pierre Le Moyne d’Iberville, a Canadian-born French naval commander who gained notoriety fighting in the colonial wars of the Northeast (McWilliams 1981:2-3). Acting on behalf of the French crown, Iberville was tasked with traveling to the Gulf of Mexico to find a suitable location for the establishment of a French colony, thereby claiming the region for France and warding off westward expansion from the English in the Carolinas (McWilliams 1981:3-7). Iberville, whose journey began in France, reached the Gulf and eventually began exploring up the Mississippi River. The first written description of the Grand Village of the Natchez is contained in Iberville’s journal entry for March 11, 1700 (McWilliams 1981:124-127). In it he describes the natural setting of the Grand Village and offers brief mentions of the chief’s house, the plaza, and the temple. Through his writings it is also learned that the Natchez chief he met with at the Grand
Village (likely the Great Sun) was suffering from dysentery—a disease that was affecting many of the Indian tribes of the region, undoubtedly a consequence of European contact. Father Paul du Ru, a member of Iberville’s party, indicated in his journal that the Natchez chief had been sick “with a flux of blood” for two months (Butler 1934:34). Even though European contact had been somewhat limited in these early years of the historic period, the ramifications were already far-reaching.

At the time of Iberville’s visit, the Natchez were at war with the English-backed Chickasaw, so they were probably glad for the opportunity to gain the support of the French (Ethridge 2010:185; Swanton 1998:219). At the behest of English slave traders, the Chickasaw were raiding neighboring Indian groups and taking captives to be sold as slaves (Ethridge 2010:205). This obviously engendered hostilities between the Chickasaw and many other groups in the Lower Mississippi Valley. Smaller, less powerful tribes were especially susceptible to the dangers of Chickasaw slave raids, which led some of them to move farther south, hoping to gain some security by being nearer to other Indians and the French (Ethridge 2010:216-217; 248-250). These raids could have been a factor in the migration of the Tioux and Grigra to the Natchez. Even though they were at war, the Natchez were not specifically targeted for raids by the Chickasaw, likely because the Natchez were also known to sell slaves to Europeans. Still, an alliance with the French would have been important to combat the Chickasaw who were being armed by the English. The French were just as eager to have an alliance with the Natchez because they wanted to secure their Mississippi River trade route. Furthermore, they also had an interest in Natchez land (Galloway and Jackson 2004:607-608).

The early years of the eighteenth-century brought with them hardships for the fledgling French colony and its outposts throughout the Lower Mississippi Valley. The War of Spanish
Succession (1701-1714) was underway in Europe, and France’s involvement in the war meant that they could not spare the naval resources required to make long voyages to the New World. Supply ships began arriving less frequently into Mobile Bay, and stopped altogether for three years beginning in 1708 (Giraud 1974:109-110). To make matters worse, what few shipments did arrive during the war were largely inadequate for a number of reasons, including food shortages in France, smaller cargo capacity of the ships, and the financial strain facing the French monarchy (Giraud 1974:110-111; Le Page du Pratz 1763:I:8-9). While this spelled near disaster for the stranded French colonists, it also severely limited the amount of goods available for trade with Indian communities. Thus, the market was primed for English traders who saw an opportunity to edge out the French competition. By 1708, the English had established trade with the Natchez and were offering more regular trade opportunities and better prices than their French counterparts (Albrecht 1946:333; Crane 1956:90-91).

Up until this point, the commerce of French Louisiana had been under the control of Louis XIV, but in 1710 the king allowed for the privatization of the colony’s commercial operations in an attempt to make the colony more profitable. Beginning in 1712, an exclusive 15 year patent granted a trade monopoly to Antoine Crozat, who was a counselor and financial secretary to Louis XIV (Giraud 1974:249-250). Antoine Laumet de La Mothe, sieur de Cadillac was appointed as governor of Louisiana. He eventually arrived in Mobile in 1713 (Le Page du Pratz 1763:I:9), bringing with him brothers Marc-Antoine de la Loire des Ursins and Louis-Auguste de la Loire Flaucort. The La Loire brothers had been selected by Crozat to open a small trading post among the Natchez (McWilliams 1953:158-159). Once in Natchez territory, they discovered that an entrepreneurial Welshman named Price Hughes was already there conducting trade with the Natchez (Crane 1956:105; McWilliams 1953:160). Attesting to the fierce
competition at hand between the French and English, Governor La Mothe ordered the La Loire brothers to arrest Hughes and bring him to Mobile, where he was held for a few days before being released to return to the Carolinas (Crane 1956:105-106; McWilliams 1953:160-163). On his way home Hughes was killed by Tohome Indians who had suffered the effects of the slave trade and were hostile to the English (Crane 1956:107; McWilliams 1953:163). At any rate, the French trading post was eventually established near the Grand Village, and the La Loire brothers were able to supply the Natchez with highly desired trade items. In this way they managed to win back support from some of the Natchez settlement districts who had been trading with the English. The post was forced to close temporarily in late 1715, however, following a breakdown in French-Natchez diplomatic relations that resulted in the First Natchez War.

The First Natchez War (1716) was brought about when some Natchez Indians killed five French traders and plundered their goods. These hostilities obviously made the French uneasy about their security. Furthermore, French colonial leaders were interested in establishing a fort and other permanent settlements among the Natchez, which clearly could not be done until they could ensure that the region was safe. So, aside from avenging the deaths of their countrymen, the French wanted to exact a punishment that would discourage any such future behavior from the Natchez. To that end, Jean-Baptiste Le Moyne de Bienville, who had replaced La Mothe as governor in 1716, captured eight Natchez chiefs under the pretense of inviting them to smoke the calumet with him (McWilliams 1953:177-178; Swanton 1998:199). Those imprisoned included ranking chiefs from the Flour, Grand Village, Grigra, Jenzenaque, and White Apple districts. Among them were The Great Sun and his two younger brothers, Tattooed Serpent and Little Sun, all of whom were friendly with the French. After negotiations between Bienville and the Sun brothers, all but two of the chiefs were released—the chiefs of the Jenzenaque and White Apple
districts who preferred the English to the French, and who had permitted the crimes against the French. In the end, they were executed for their anti-French actions. The remaining chiefs were set free on the condition that they would be responsible for reparations for the deaths of the Frenchmen (including taking the heads of some of the offenders), and that they would provide the materials and labor necessary to construct a French fort (McWilliams 1953:179-180; Swanton 1998:202). As part of this agreement Fort Rosalie was built to Bienville’s specifications and was ready for use by the beginning of August 1716 (McWilliams 1953:181). The trading post was reopened after being moved to a location closer to the fort (Barnett 2007:73).

The construction of the trading post and Fort Rosalie was really just the beginning of permanent French settlement in the Natchez area. In 1717, Crozat turned over the Louisiana trade monopoly to the Company of the West (later renamed the Company of the Indies). Owned by Scotsman John Law, the Company of the West began to fill Louisiana with settlers, African slaves, and plantation-style settlements known as concessions. The French established two large concessions at the Natchez known as the St. Catherine and White Earth concessions (Le Page du Pratz 1763:I:44-45; O’Neill 1977:135-136). Other smaller farmsteads were springing up as well. Between the garrison at Fort Rosalie and the concessionaires, the intermingling of the French and the Natchez was at all time high. The Natchez relied on the French for trade goods and, in turn, the French relied on the Natchez for deerskins, labor, and foodstuffs (Barnett 2007:85; French 1853:32; Le Page du Pratz 1763:I:58-59). Indian-European relationships extended past trade, however, as Jesuit priest Father Pierre F. X. de Charlevoix noted during his 1721 visit to the Natchez. Charlevoix was the first priest to visit settlers in the Natchez region in some five years, so when he arrived he found French men living with Natchez women in the absence of an
official Church marriage. Though he was unhappy with the situation, he did perform the marriages as requested:

The first proposal made to me was to marry, in the face of the Church, those inhabitants, who by virtue of a civil contract, executed in presence of the commandant and principal clerk of the place, had cohabited together without any scruple, alledging, for excuse, along with those who had authorized this concubinage, the necessity there was of populating the country, and the impossibility of procuring a priest. ...In short, the evil being done, the question was only how to remedy it, which I did. (sic) (De Charlevoix in O’Neill 1977:158-159)

Relations between the French and English were friendly for the first few years of extensive colonial settlement, but troubles arose in the early 1720s. The Second Natchez War broke out in October of 1722, when an argument over a debt of corn escalated and an old Natchez warrior from the White Apple district was shot and killed by a French solider (Le Page du Pratz 1763:60). The Natchez, specifically members of the White Apple district, did not feel as if the French soldier who killed the Natchez man was punished to the appropriate degree and retaliated against the St. Catherine concession and other farms in the area. Two Frenchmen were attacked and killed by the Natchez, who also killed livestock and burned French houses (Le Page du Pratz 1763:I:61-62; French 1853:48; Barnett 2007:86). The Tattooed Serpent acted as a mediator of the conflict, relaying messages between leaders at Fort Rosalie, the St. Catherine concession, and the White Apple district. He is reported to have threatened to take the side of the French over that of the White Apple district if the White Apple chief would not call off the attacks and harassments (Phelps 1945:7). The fact that the Tattooed Serpent would back the French over his own people shows how deep the political factions among the Natchez settlement districts really ran. After all, the division between the pro-French and the pro-English chiefs was nearly serious enough to bring about a civil war. It also demonstrates how various district chiefs
operated on their own and without complete oversight or control from the Great Sun. Still, the negotiations between the Tattooed Serpent and the White Apple chief worked and a declaration of peace between the Natchez and the French was signified by a calumet ceremony. The whole conflict had lasted only a few days.

The period of peace following the Second Natchez War was short-lived, because the Third Natchez War occurred only a year later in the fall of 1723. Possibly responding to complaints that anti-French Natchez were still killing livestock at St. Catherine concession, Bienville mounted a force of 700 men comprised of French soldiers and Tunica, Yazoo, and Choctaw warriors and marched to the Natchez (French 1853:50; Le Page du Pratz 1763:I:69). Over the course of two days, Bienville and his men descended upon the Grigra, Jenzenaque, and White Apple districts and burned their homes and ceremonial centers (French 1853:51-55; Le Page du Pratz 1763:I:70-71). The majority of the inhabitants of those districts were able to flee before Bienville’s arrival, but those unfortunate enough to cross paths with his troops were scalped and killed or taken as slaves. It is estimated that sixty Natchez were killed or captured during the campaign (Barnett 2007:93). Peace negotiations again fell to the Tattooed Serpent:

The commandant [Bienville] meanwhile was thinking of bringing the war to a close, but he did not wish to do so without making it cost the Indians not poultry, as it did at first, but blood worth shedding. In this state he summoned the Stung-Serpent [Tattooed Serpent], and the latter having instantly presented himself, the commandant told him that he revoked his promise not to attack the Great Village, as he learned that they harbored his enemies. To this the great chief, who was really our friend, made no answer, but a request for peace. “I grant it,” said the general, “but on these terms. You know that there is among your people a negro who formerly belonged to the French: bring me his head and that of Oldhair, chief of White Apple Village, and promise me ever to regard the French as your friends and brethren; on these two conditions, I will grant peace.” (Dumont in French 1853:56)
The Tattooed Serpent, in order to save the Grand Village, Flour, and Tioux districts from the wrath of the French, agreed to these terms and delivered the two heads to Fort Rosalie within three days (French 1853:56). The execution of Old Hair, the White Apple chief, was a particularly shocking concession toward peace because Old Hair was a member of the Sun class, and by Natchez rule, no Suns were ever to be put to death (Swanton 1998:220). Once again the French had successfully played the Natchez political factions against one another in order to rid themselves of troublesome opposition in the anti-French districts. In return for their loyalty, the Tattooed Serpent and other French-allied chiefs were given gifts of brandy. The White Apple district was rebuilt, but the peoples of the Jenzenaque and Grigra groups eventually moved out of the immediate area. They perhaps went farther north toward Coles Creek, or even settled among other pro-English groups like the Chickasaw (Rowland and Sanders 1932:385).

In the years following the four days of the second war, French presence in the Natchez region continued to grow. The number of farms, settlers, and African slaves all rose as the Company of the Indies redoubled its efforts to extract profits from the colony (Barnett 2007:99). While the next several years were free from any major conflicts, the French lost two major allies within the Natchez leadership—the Tattooed Serpent died in 1725, followed by the Great Sun in 1728. Both men had remained staunchly pro-French throughout their reigns, and without the leadership of the Great Sun and the diplomatic prowess of the Tattooed Serpent, it would be a difficult task to unite the chiefdom behind French interests when grievances inevitably arose (Swanton 1998:220). The Great Sun’s successor lacked the political authority and power of his predecessor and was largely ineffectual in his role. The White Apple chief, who was certainly no friend to the French, seems to have stepped up to fill the void (Swanton 1998:220-221).
This change in leadership coupled with further French encroachments on Natchez territory and various small insults and offenses allowed anti-French sentiment to grow in the chiefdom. The situation finally came to a head on November 28, 1729. That morning a group of Natchez men entered Fort Rosalie under seemingly peaceful terms, but surprised the small French garrison by firing upon them; at the same time, other Natchez forces positioned outside of the fort set upon French homes and killed or captured the inhabitants (French 1853:70-71; Le Page du Pratz 1763:I:152-153; O’Neill 1977:82; Swanton 1998:224-225). This Natchez act of rebellion is commonly referred to as a massacre, as few French escaped that day, regardless of age or sex. De Charlevoix gave the following figures, though Swanton (1998:226) considered them to be on the conservative side:

...[T]wo hundred men perished in this way almost in an instant. Of all the French who were at this post, the most populous of all, only about twenty escaped, and five or six negroes, most of them wounded. One hundred and fifty children, eighty women, and almost as many negroes, were taken. The Jesuit Father du Poisson and Mr. du Codere, commandant at the Yazoos, who happened to be at the Natchez, also perished. (De Charlevoix in O’Neill 1977:82-83)

Perhaps more accurately, Dumont stated that more than 700 people were killed (French 1853:70-71).

While the French were mounting a force to retaliate with, the Natchez constructed two wooden forts south of the Grand Village, along the banks of St. Catherine Creek. They took with them the cannons and cannonballs from Fort Rosalie and the French hostages they had captured during the massacre (Barnett 2007:113-114). In early 1730 the French forces laid siege to the Natchez forts, aided by Choctaw warriors whom they had persuaded to join them (French 1853:89; Le Page du Pratz 1763:I:153-154; Swanton 1998:237). Despite some skirmishes and a full out Natchez attack on the French, the sides eventually fell into a stalemate. On February 25,
the French agreed to retreat to a distance of three miles and, in return, the Natchez released the hostages to the Choctaw (Le Page du Pratz 1763:I:154-155; O’Neill 1977:99-100). When night fell, the Natchez secretly escaped, taking with them all their possessions. While it seems unbelievable that the Natchez could have left completely undetected, Swanton (1998:241) suggests that the Choctaw may have aided them by looking the other way:

It looks rather as if the Natchez had already laid their plans to escape and took the measures they did in order to gain time and remove the French from their neighborhood until the project could be carried out. ...Could it be possible that those proficient double dealers, the Choctaw, had secured the custodianship of the prisoners from the Natchez as hush money for conniving at or winking at their escape?

Whether involved in the escape or not, the Choctaw were able to extract payment from the French in exchange for the hostages.

The Natchez moved northwest of their old territory and built a new fort, near what is now Sicily Island, Louisiana. French soldiers arrived in the area in January of 1731, and a siege was once again underway (Le Page du Pratz 1763:I:157-160; O’Neill 1977:114-115; Swanton 1998:244-245). Negotiations began between the French and members of the Sun class, including the Great Sun. The negotiators had been placed under guard while they were among the French, but the Flour chief still managed to escape, whereupon he went back the Natchez fort and convinced some warriors and their families to escape with him (O’Neill 1977:118-119). Étienne Périer, governor of Louisiana and the commandant of the French forces besieging the Natchez, promised to spare the lives of any Natchez who would surrender (O’Neill 1977:119). Eventually between 200 and 500 Natchez did give themselves up, most of them women (Barnett 2007:125). Le Page du Pratz (1763:I:160) reported that this group included “the Grand [Great] Sun, and the
female Suns, with several Warriors, many women, young people and children.” Those who remained managed to escape the fort before it was taken by French forces.

The surrendered were taken as prisoners and shipped down river to New Orleans, where many died in prison (Barnett 2007:126; Le Page du Pratz 1763:1:160; O’Neill 1977:120). Some were sold as slaves in New Orleans, but the majority of the captive Natchez were sent to Santo Domingo to work as slaves on the sugar plantations (Le Page du Pratz 1763:1:161; O’Neill 1977:121-122). The Great Sun and the last remaining members of the Sun lineage, whose predecessors had often fought in support of French interests, were among those destined to live out their days as slaves in the Caribbean. Le Page du Pratz (1763:1:161) closed his history of the Natchez with these words: “...[T]hese slaves were embarked for St. Domingo, in order to root out that nation in the Colony; ...And thus that nation, the most conspicuous in the Colony, and most useful to the French, was destroyed.”

Though the Natchez as a people were not entirely destroyed, 1731 was certainly the terminus of the Natchez chiefdom. From that point on, the Natchez lived in small bands scattered throughout the Lower Mississippi Valley. Some lived as refugees among other tribes, particularly the Chickasaw, Upper Creeks, and Cherokee (Galloway and Jackson 2004:610). Communities with ties to Natchez heritage and culture still exist within these tribes, however, the last native speaker of the Natchez language passed away in the 1930s.

The relationship between the French and the Natchez had begun on somewhat mutually beneficial terms, and both groups enjoyed the security that their alliance afforded them in a politically turbulent colonial frontier. More specifically, the French were drawn to the Natchez, in part, because of their strategic location along the Mississippi River and the fertile loess bluffs they inhabited. The Natchez were eager to reap the benefits of trade with the French, and
welcomed the steady supply of European goods. As the French colony grew, however, their increased presence in the Natchez territory caused tensions that only became more difficult to overcome as time went on. Ironically, the fertile land that had been an asset to the Natchez and their ancestors had attracted the relatively dense French occupation that caused the untenable relationship between the two, ultimately leading to the downfall of the Natchez at the hands of the more militarily advanced French (Galloway and Jackson 2004:607-608).

Archaeological Investigations

Our knowledge of Natchez Indians is drawn not only from historical documents, but also from a rich archaeological record. What was to become known as the Natchez chiefdom in historic times, emerged from the late prehistoric Plaquemine culture (ca. A.D. 1200-1550). The Mississippian Period Plaquemine culture occupied bluffs throughout southwestern Mississippi and had a presence at many sites in the Natchez area (Brown 2007:145). Two of the most well-known Plaquemine sites in the Natchez bluffs region are Anna (22-Ad-500) and Emerald (22-Ad-504), both of which are large primary mound centers. Anna and Emerald would have been centers of ceremonial life for the Plaquemine, but their importance seems to have declined during the protohistoric period. By historic times, the most important site to the historic Natchez Indians (from a political and ceremonial standpoint, at least) was the Grand Village, which was a much smaller tertiary mound center constructed in the late protohistoric period (Brain 1978:358-361, Table 12.2).

Investigations of historic Natchez sites began in 1924 with Warren K. Moorehead, who located a number of sites in Adams County, Mississippi, and conducted tests on some of those sites, including a trench into a mound at what later became known as the Fatherland site (22-Ad-
In 1930, more intensive excavations were undertaken by Moreau B. Chambers. Working on behalf of the Mississippi Department of Archives and History (MDAH), Chambers uncovered a great number of burials on Mound C that contained aboriginal ceramic vessels and numerous European trade goods (Neitzel 1997:9). Trenches into Mounds A and B revealed mound stratigraphy, but no artifacts. The following year, James A. Ford (1975:59-64) also made observations about the site. The work of Chambers and Ford led to confirmation that the Fatherland site was indeed the Grand Village of the Natchez Indians (Neitzel 1997:1). MDAH research at Fatherland continued with Robert S. Neitzel in 1965. Neitzel’s excavations revealed mound stratigraphy, burials, and evidence of mound-top structures. The resulting report (Neitzel 1997) included analysis not only of his own findings, but also the earlier work of Chambers. Importantly, Neitzel (1997:58-85; 87-89) also established correlations between the archaeology of the Fatherland site and historical accounts of the Grand Village, including specific artifacts, burial practices, and structures like the Natchez temple and the Great Sun’s house. Again working on behalf of MDAH, Neitzel returned to Fatherland in 1972. With the data from those excavations, he was able to establish an internal site chronology (Neitzel 1983). The groundwork for that chronology was laid by the efforts of the Lower Mississippi Survey (LMS), which elucidated cultural phases of the region primarily through ceramic analysis. Surveys conducted in the Natchez bluffs region by the LMS in 1971 and 1972 under the direction of Jeffrey P. Brain were of particular relevance, but it should be noted that the work of the LMS in the larger overall region dates back to its founding in 1939 (Phillips et al. 2003).

A decade later in 1981 and 1982, the LMS again turned its focus to the Natchez bluffs region, this time performing collection analysis and carrying out excavations and surface surveys.
at ten protohistoric and historic sites (Brown 1985:1). The project, directed by Stephen Williams, was designed to study changes in the material culture of the Natchez Indians as their contact with European intensified. Ian W. Brown (1985) presented the results of the project in a MDAH monograph entitled *Natchez Indian Archaeology: Culture Change and Stability in the Lower Mississippi Valley*. Brown’s work is especially relevant to this study because it demonstrated variation in material culture among Natchez settlement districts. His hypotheses (summarized below) formed a basis for interpreting differences in the material culture of various settlement districts, which is largely applicable to the current study of glass trade beads:

1) Significant variations were expected in European material culture between groups of villages belonging to the two political factions [pro-French and pro-English]; 2) Historic materials of aboriginal origin were expected to be more similar between villages of opposing factions, because of more intensive sociocultural interaction; and 3) Variations in aboriginal material culture were expected between the indigenous Natchez villages and the recently adopted Mississippian group (Grigra and Tioux) from the north. (Brown 1985:10)

In his analysis, Brown linked possible ethnic differences among settlement districts to the presence of shell-tempered pottery. Shell is an atypical temper for the Natchez bluffs region, but is much more common in the Yazoo Basin to the north. Brown found that the sites in the area of Fairchilds Creek and Coles Creek contained coarse shell-temper pottery decorated with local Natchezan designs. This is perhaps evidence of an immigrant group continuing to make their own type of ceramic material, but then applying decoration that mimics the style used in their newly adopted home (Brown 1985:190). This style of variation was also noted in ceramic vessels included in burials at the O’Quinn site (22-Je-543), located in the same area. The temper, along with decoration and vessel form, of O’Quinn burial ceramics were distinct from that of burial ceramics at the native Natchezan sites of Rice (22-Ad-547) and Fatherland (Brown 1985:195).
In a similar vein, a study by Lorenz (2000) compared European artifact assemblages from burials at the Rice and Fatherland sites. Based on existing excavation data, the comparisons were aimed at better understanding the actual power and authority held by the chiefs of the Grand Village. If the Great Sun and other ruling elites at the Fatherland site truly possessed absolute authority, then Lorenz (2000:163-164) reasoned that the Fatherland site should contain more European goods, especially those which symbolize wealth and power, than the outlying and politically less significant Rice site. He found that burial assemblages from Rice contained a wide variety of artifact classes, including European materials, which shows that secondary chiefs of more remote settlement districts could also obtain significant quantities of trade goods (Lorenz 2000:168-173).
CHAPTER 3
GLASS TRADE BEADS

The Manufacture of Glass Beads

Since most bead typologies rely on distinctions between different modes of construction, it is important to understand a bit about how glass trade beads were manufactured. At the most basic level, beads are divided between two main construction methods: drawn and wire-wound. Drawn beads were easier and less time consuming to mass produce, and therefore usually outnumber wire-wound beads by at least three to one (Karklins 1983:115). To make drawn beads, a glass blower would begin with a bubble of molten glass on the end of a blowpipe (Figure 3.1). While the glass is still molten, more layers of different colored glass can be added to the bubble, resulting in a compound bead (Brain 1979:97; Kidd and Kidd 1970:49). Once these beads are in their final form, one can usually see the different layers on the side of the bead in the area surrounding the perforation. Compound beads can contain any number of layers and colors, but the ones found at Natchez sites usually have only two. If no additional layers of glass are added to the original bubble, then the bead is referred to as simple. The next step in the drawn bead manufacture process is to attach an iron rod to the end of the molten glass bubble. Then, with one man holding the original blowpipe and with another holding the attached iron rod, the bubble is stretched in opposite directions into a single long, thin tube of glass with uniform proportions throughout (Kidd and Kidd 1970:49).
The basic process described above can be modified to produce beads with surface decorations or different cross section shapes. To make a bead with stripes (the most common type of surface decoration), the inlay treatment is used. Colored canes of glass are arranged inside a bucket or pail (Figure 3.2). They are leaned up against the wall of the bucket, so that the molten bubble can be placed in the center (Kidd and Kidd 1970:49). The blowpipe is then used to make the bubble larger until the canes of glass have adhered. The bubble with the addition of
the canes is then placed briefly back into the furnace where the two can fuse. The process then proceeds as before, with the bubble being stretched into a long tube. As the glass is thinned and lengthened, the canes become narrow stripes on the surface of the bead (Kidd and Kidd 1970:49). Since the canes were well-fused with the original bubble of glass, the stripes are flush with the surface of the bead. If beads with non-round cross sections are desired, then the molten bubble is placed on a board known as a marver and paddled into the desired shape before being drawn out (Kidd and Kidd 1970:49). This can produce beads that are triangular or square in cross section. Finally, beads can be given a spiral effect by twisting the bubble as it is being stretched out (Kidd and Kidd 1970:49). Any number of the above techniques can be applied in tandem, which means that there are numerous final forms that a drawn bead can have across a range of complexities. For instance, some of the beads examined for this study had been layered, striped, and twisted producing a final product that has two different colored layers and spiral stripes.

Figure 3.2. Inlay treatment for glass beads (adapted from Kidd and Kidd 1970:Figure 2).
After all of the desired decorations and effects have been applied, the long stretched out tube is allowed to cool and harden. It is then chopped into individual beads. If left in this state, the beads will be called tube beads and will have relatively flat, rough ends. Typically, these types of beads are long and narrow (Brain 1979:100). In order to give the beads rounded ends and a more round or oval shape, more processing is necessary. The rough-ended tubular beads are placed into a metal container and reheated while being tumbled. Care is taken so that the beads do not fuse together, and a mixture of sand and charcoal is placed into the perforations beforehand so that they do not close up during reheating (Kidd and Kidd 1970:49). When the ends of the beads have become sufficiently rounded, the beads are once again allowed to cool. At that time they are washed and polished.

The second main type of bead manufacture is the wire-wound technique. As opposed to the drawn method where hundreds or thousands can be made at once from a single stretched tube of glass, wire-wound beads are made individually (Kidd and Kidd 1970:49). To make a wire-wound bead, a glassworker begins by heating the end of a slender glass cane in an open flame. Once the glass becomes molten, a strand is pulled from the cane and wrapped around a chalk-coated wire (Kidd and Kidd 1970:49). The bead is formed by continually wrapping the glass around wire until the desired size and shape are achieved. Brain (1979:97) points out that multiple beads could be wound next to one another on the same wire. Wire-wound glass trade beads exist in a range of sizes from very small to very large, but this method of construction is mostly associated with very large necklace beads.

Just as with drawn beads, the basic process of making wire-wound beads can be expanded upon to create any number of shapes and designs. To make multicolored designs, heated strands from other glass canes can be added to the surface of the bead. Since the beads are
made by hand one at a time, even complex embellishments like stars and flowers are possible (Kidd and Kidd 1970:49). Unique surface shapes, like those seen in “melon” and “raspberry” beads can be created by molding, pressing, or otherwise shaping the bead while the glass is still hot (Brain 1979:97; Kidd and Kidd 1970:50).

Typically, all of the work described above was done by men. In the case of drawn beads, a glass blower was responsible for preparing the molten glass bubble, but the actual stretching of the bubble was performed by servants that acted as *tiradors*, or runners (Kidd and Kidd 1970:49). Wire-wound beads, however, were made entirely by a single person. Though this was usually a man’s job, one Venetian guild did allow wives and daughters of male beadmaking masters to create wire-wound beads (Trivellato 1998:51). In another guild, however, female relatives were only allowed to sort the glass canes used in manufacture and string the beads once they were completed (Trivellato 1998:51).

The glass beads brought to the New World were produced in Europe. Early bead manufacturers were located primarily in Italy, but eventually similar beads were being made all over Europe, including a number of cities in France, Holland, and Bohemia (Karklins 1983:115; Sprague 1985:101; Trivellato 1998:70; Turgeon 2001:64; Woodward 1976:9). Venice, Murano, and Amsterdam were the major centers of glass bead production at the time of the Natchez trade (Karklins 1983:114; Kidd 1979:9, 18-19, 36-38). Despite having different manufacturing locales, it is generally impossible to determine a bead’s European origin, even at the national level. There is a general lack of records detailing exactly what beads were made where and in what quantities (Karklins 1983:115; Turgeon 2001:58). Furthermore, beads were often made in an identical fashion regardless of the location. Many of the most skilled beadmakers were from guilds in Venice and Murano—Italian cities that are still renowned for their expert glasswork. As such, it
was not uncommon for other manufacturers to attempt to copy their style of beads (Turgeon 2001:67-68). In other instances, artisans from Venice and Murano established glass bead industries in other counties, as was the case with Holland and France (Karklins 1983:115; Little 2010:226; Turgeon 2001:70). The relocated Italian masters produced beads that were virtually indistinguishable from those they were making in Italy (Karklins 1983:115; Little 2010:226). No differences in chemical composition were found between Dutch and Venetian beads tested by Karklins (1983:116).

**Glass Beads in the Colonial Trade**

Glass beads were a staple item of colonial trade and interaction from the very beginnings of European contact with American Indians. Although surpassed in value by other trade items like cloth and metal goods, beads were nonetheless prized objects among many Native American groups (Francis 1988:2). Traders, missionaries, settlers, and explorers from several European nations used beads in both bartering and gift-giving systems with native populations (Blair et al. 2009:7; Francis 1988:2). In countless instances, Europeans looked to ingratiate themselves with Indians by offering presents of glass beads. This strategy was often used to initiate diplomatic and trade relations with indigenous groups. The history of giving or trading beads to Indians began with Columbus himself and continued for hundreds of years.

Trade beads were highly desired and treasured by native populations, in spite of the low intrinsic value glass held for Europeans (Trivellato 1998:63). Beads were a mainstay of even the earliest trade activities between Europeans and American Indians. Miller and Hamell (1986:314) suggest that “trinkets” like beads may have actually been more important in early trade than utilitarian objects. Perhaps glass beads gained such popularity among Indian consumers because
they were a new interpretation of familiar native adornment objects. Trade beads likely served as replacements for native beads made of shell, stone, seeds, or wood (Swanton 1998:43, 56). Evidence has been found for the use of native-made ceramic beads, though Brown suggests that these were actually manufactured in an effort to imitate European glass beads (Brown 1985:138, 147, Figure 81). The Natchez were also documented as having highly valued necklaces made of pearls, but the Europeans were of the opinion that the Natchez had ruined the pearls by burning them to create the holes for stringing (Swanton 1998:259-261).

American Indian groups across the continent used glass beads as adornment objects, though their exact use varied somewhat by region and time period. Beads were often strung into necklaces, bracelets, and earrings. They were also used as hair ornaments and made into headdresses. Embroidery beads were sewn onto a variety of clothing items including shirts, leggings, moccasins, and belts. Beads could be used for any variety of other decorative tasks as well—the Seneca, for example, used beads as inlays on pottery pipes, and even as rattle stones in turtle shell and brass rattles (Wray 1983:47). It has been suggested that they could have been employed as forms of currency among some groups (Adair 1966:178; Wray 1983:47).

The path of any particular trade bead became fairly convoluted once it left the manufacturing warehouse. Generally, European manufacturers sold beads in bulk to large trading companies, which in turn made the beads available to smaller, independent traders (Francis 1988:3). This meant that beads rarely went straight overseas, but first would have passed through a variety of hands in Europe. Trivellato (1998:65) offers an example of how Venetian beads usually traveled via cargo ship to Flemish and English ports, but notes that “subsequent branches of bead trading are rather obscure.” It is known, however, that Italian beads imported by countries like England, France, and Belgium were repackaged before being shipped to the New
World by trading companies (Woodward 1976:9). This can cause even more confusion when trying to source beads. For instance, a particular variety of blue faceted beads found in parts of Alaska, British Columbia, Washington, and Oregon were known as “Russian beads,” because they were traded by the Russian American Fur Company. Unopened packages of the so-called Russian beads were later found in the company’s warehouse, but the parcels were clearly labeled “Brussels” (Woodward 1976:9). Given the sheer number of people and places involved in the bead trade, it is very difficult to trace the route that any one shipment of beads might have taken. Sprague (1985:101) warns that a bead’s “source of manufacture should not be confused with the country of origin of the trading company, the flag under which the trading ship sails, or the nationality of the trader.”

Once the beads had been shipped out to suppliers, they were sold to trade companies at commercial capitols like London and Amsterdam. These entrepôts provided merchants with a great variety of wares that were destined for trade in both North America and Africa (Stine et al. 1996:56). Most beads were sold in bulk and came packaged in crates, barrels, and casks (Woodward 1976:9). They were sold by weight, with lots ranging from tens of pounds to thousands of pounds (Brain 1979:291, 299; Woodward 1976:11-12). Smaller beads, including the tiny seed beads used for embroidery, were usually strung onto thread and then sold by the bunch (Trivellato 1998:50-51; Woodward 1976:9).

The glass beads arrived in the New World on cargo ships bringing supplies and trade goods to colonial European ports. At that point, the wares would be passed to independent traders (Francis 1988:3). These men would then take trade goods, including glass beads, to Indian settlements along their trade routes, and some even maintained permanent trading posts. The nationality of the traders probably had little influence on the types of beads they carried.
because different trading companies were often using the same European sources (Bradley 1983:37).

European traders received a variety of items in their commerce with Indians, but the most common “currency” involved in the trade was animal skins. Beaver pelts dominated the market in the Northeast, while the Southeastern economy was based on deerskins. Therefore, beads were often priced in numbers of skins. The price for a given type of bead depended on its size, color, and style, and could vary from trader to trader based on any number of factors (Braund 2008:127; Erikson 1969:47). Most bead types were sold by the strand, though especially large or fancy beads may have been sold individually. Trade records from the mid-1760s reveal that English traders were offering Creek Indians 20 to 30 strands of “common” beads for one pound of dressed deerskins. A fancier variety known as barleycorn beads were offered at the more expensive rate of only 5 strands per pound of dressed deerskins (Braund 2008:127-128). The trade and distribution of glass beads likely went beyond formalized systems. For example, even though the French crown granted a trade monopoly over French Louisiana to a single trading company, some passengers traveling to Louisiana would bring their own supplies to sell to the colonists. There are accounts that these unofficial sales were quite rampant, despite the fact that such activity was technically forbidden (Surrey 1916:167). Beads also passed from person to person in everyday transactions, both between and within colonial and native settlements, and probably even traveled through the Indians’ own systems of exchange (Francis 1988:3). Due to these factors, it is difficult to assess with any certainty the specific quantities of beads being traded to the New World, much less the price for each type, or when and where they were traded. The same is true even for beads that went through official markets because records simply are not complete enough to reflect all trading activities. After all, traders were dealing in
frontier economies where there was little in the way of rigid standardization. Yet it is clear that glass beads became a ubiquitous trade good throughout the Southeast. They are mentioned in countless historical accounts of interaction between Europeans and Indians, and are commonly recovered from colonial period sites (Loren 2009:112).

**Known Examples of Glass Bead Preference**

Glass trade beads were produced in a plethora of different shapes, styles, colors, and sizes. Natchez sites alone have yielded over fifty distinct bead varieties. With so many options present in the trade market, native consumers must have been able to exercise preference for certain beads—a concept that lies at the crux of this study. Since beads were most often used as objects of personal adornment, it is expected that people would choose the types that they liked best. Personal tastes, however, are not just random occurrences; a person’s sense of aesthetics and style are informed by culturally-defined values. This leads to the emergence of group-specific styles in adornment practices (a phenomenon that was just as visible in the past as it is today). For glass beads, this means that native groups could have displayed unique preferences for certain colors or types.

Given the makeup of the Natchez chiefdom in the historic period, it follows that there may well be differences in bead use among its residents, especially when considering that the chiefdom was composed of semiautonomous settlement districts that varied in terms of ethnicity, political leadership, and European trade relations. Distinctive styles of beads could have served as a way to distinguish groups from one another, thereby reinforcing and preserving the identity of individual segments within the larger population. Since the Natchez had only recently absorbed outside refugee groups, this is a particularly pertinent issue. Using differing styles may
have been important to maintaining group identity for the ethnically distinct Tioux and Grigra populations as well as for native Natchezans.

Since this study is predicated on the idea of native bead preferences, it is important to establish that such preferences indeed existed and are visible in the archaeological and historic record. Natchez ethnographer and French colonist Antoine-Simon Le Page du Pratz wrote the following about glass bead use among the Natchez:

When they have beads (*rassade*) they make necklaces composed of one or many rows. They make them long enough for the head to pass through. The *rassade* is a bead of the size of the end of the finger of a small infant. Its length is greater than its diameter. Its substance is similar to porcelain. There is a smaller one, ordinarily round and white. They value it more than the other. There is a blue one and one of another style which is banded (*bardelée*) with blue and white. The medium sized and the smallest are strung to ornament skins, garters, etc. (Swanton 1998:56).

Though brief, Le Page’s account does include a small clue as to how certain beads were worth more than others, presumably because they were more desirable to the Natchez. Unfortunately, there are no other written accounts that specifically address Natchez bead choice, but examples from other groups can be used to support the concept of native bead preferences.

Perhaps one of the best documented instances of bead preference exists among Plains Indian tribes. Although general similarities are present in the embroidered beadwork of Plains Indians as a whole, individual tribes are known to have featured differing colors and motifs in their work. The use of these specific designs is often distinct enough to ascertain the tribal origins of a given piece of beadwork (De Vore 1992:60). These determinations are not only based on the mere presence or absence of certain colors, but also on how specific colors are used. For example, some tribes show preference for which colors are to be used in various design elements like the background or border (De Vore 1992:60; Logan and Schmittou 1995:47; Lowie
Logan and Schmittou (1995) examined how beadwork styles varied among Plains culture areas and identified regional styles that can be viewed as ethnic markers of the associated tribes. The bead art of the Northern Plains groups, including tribes such as the Assiniboine, Blackfeet, Cree, and Ojibwa, usually features between two and five colors. Designs were typically embroidered using dark blue, red, yellow, and/or orange, with white or medium blue beads used as a solid background (Logan and Schmittou 1995:47). White backgrounds were also common among the beadwork of the Arapaho, Cheyenne, and Lakota tribes of the Central Plains, but their designs were usually stitched in red, green, blue, or yellow (Logan and Schmittou 1995:49). The Crow of Montana, however, preferred solid backgrounds of light blue, lavender, and sometimes pink. As opposed to being used as a background color, white beads were more commonly used for the borders of Crow designs. Typical Crow pieces also used far more colors than other Plains beadwork. While averaging seven or eight colors, some pieces may include up to twenty distinct shades (Logan and Schmittou 1995:47). Southern Plains groups like the Comanche and Kiowa differed from other Plains tribes in that they used beads more sparingly, rarely covering an entire surface in beadwork (Logan and Schmittou 1995:49).

Some of the differences in color preference among Plains tribes might be rooted in the symbolic meanings of certain colors, which varied from tribe to tribe. As Lowie (1982) noted, red was used in Crow artwork to signify longevity and property ownership. To the Arapaho, however, red symbolized more concrete concepts such as blood, paint, or sunset (Lowie 1982:150-151). General aesthetics seem to have also played a role, as some tribes had specific ideas about which colors were best suited for certain types of decoration or adornment:

The [Blackfeet] women ornament their best dresses ... with broad diversified stripes of sky-blue and white glass beads. The Indians do not like beads of other colours, for instance, red, next the skin; and their taste in the contrast of colours is very correct, for in their
black hair they generally wear red, and on their brown skins, sky-blue, white or yellow. (Thwaites in Karklins 1992:101)

Regional color preferences are so evident in the Plains in part because of the breadth of beadwork specimens to draw upon. Beading traditions have been passed down through many generations, so there is a great body of work to study in the Plains culture area. Some old beadwork pieces have been preserved and still exist today, while early photographs and accounts help document other pieces now lost. In the case of the Natchez, however, there are no intact examples of Natchez glass beadwork, which means that one must rely on the archaeological record and historical documents in order to better understand the nuances of Natchez glass bead use. Fortunately, examples of the archaeological and historical signatures of bead preferences also exist among the Plains Indians, thus helping to establish a precedent for such correlates. The Fort Union trading post located in present day Williston, North Dakota, is one such example. Fort Union was founded by the American Fur Company and served as a trade hub in the Northern Plains from 1829 until 1867 (Chamberlain 1993:3-7). The Assiniboine, Blackfeet, Cree, Crow, and Ojibwa were the principal tribes who traded there, though it was frequented by other Northern Plains tribes as well. Four inventories taken each year from 1848 to 1851 provide detailed accounts of the wide variety of goods in stock at the trading post, including the types, colors, and quantities of glass beads available. Pound beads were the most plentiful bead stocked at Fort Union. A bit larger than seed beads, pound beads typically measure around 3 or 4 mm in diameter. The name “pound beads” is a reference to the fact that they were sold to traders by the pound, although they are also known as “pony beads” because of the pack horses used to carry early traders’ wares. For each year of the inventory, blue pound beads far outweigh any other color of pound beads (and any other beads, for that matter). In both 1848 and 1849, slightly over 500 lbs of blue pound beads were recorded. White, red, black, and yellow pound beads were also
available those years, but in much fewer quantities—combined they weighed only 39 lbs in 1848 and a mere 9 lbs in 1849 (Chamberlain 1993:152-153; 163-164). Bead inventories were increased in 1850, with 1097 lbs of blue beads, and a total of 218 lbs of black, white, and yellow. Red beads were not listed that year, but in their place was 420.5 lbs of a color described as “carnelian,” the name of a brownish-red mineral (Chamberlain 1993:177). Finally, in 1851 the number of beads in inventory was greatly reduced. Only 80 lbs of blue pound beads were listed that year, but they still outnumbered the “com’n purple” and red pound beads that weighed 58 and 10.5 lbs, respectively (Chamberlain 1993:188). Even with this reduction, it is clear that blue remained the most common color for pound beads throughout all four inventories. Actual bead assemblages recovered from the Fort Union trading post feature blue as a dominant color. In this instance, the written record can be supported by what is found archaeologically. Together blue and white beads constitute 75 percent of the entire collection, which seems to reflect the Northern Plains preference for using blue or white beads as the background for beaded designs (De Vore 1992:61). While it is possible that this is a supply issue, rather than a reflection of demand or preference, there is evidence to support the fact that blue beads in particular were highly prized. One account states that the Crow would give as much as a horse for 100 small blue beads (Erikson 1969:48).

Blue beads were greatly desired by other Indian groups as well. During their westward explorations Lewis and Clark experienced firsthand the high price some were willing to pay for simple blue beads. In November of 1805, while in what is today Oregon, Clark noted the following experience in his journal:

In the evening Seven indians of the Clot Sop Nation Came over in a Canoe, they brought with them 2 Sea otter Skins for which they asked blue beads &c. and Such high pricies that we were unable to purchase them without reducing our Small Stock of merchendize,
on which we depended for Subcistance on our return up this river—nearly to try the Indian who had one of those Skins, I offered him my Watch, handkerchief a bunch of red beads and a dollar of the American Coin, all of which he refused and demanded "ti-â, co-mo-shack[" which is Chief beads and the most common blue beads, but few of which we have at this time (sic) (Clark in Moulton 2003:291).

The next month, Clark again wrote of blue beads again, stating that the Clatsop “value Blue beads highly, while they also prize but no other Colour do they Value in the least” (sic) (Clark in Moulton 2003:300).

Figure 3.3. Chevron trade beads (User ZSM:2011).

Not all populations held blue in such high regard, however. The Neutral Indians of present day Ontario received blue and red chevron beads from the French. These beads feature a primarily blue glass exterior with inner layers of red and white glass exposed on the sides of the bead in chevron shapes, creating a sunburst effect on either end (Figure 3.3). The Neutrals are said to have ground down the outer layer of blue glass in order to expose the red interior, apparently preferring red beads to blue, even if it meant altering complex bead designs (Kenyon 1977:13). Red was seen as a symbol of life among the Neutrals and, therefore, may have been
considered more desirable than blue. After all, natural materials such as red ochre and red catlinite pipestone had been used by the Neutrals and other Indians since ancient times and had come to be ritually important resources (Kenyon 1977:13). It seems that this preference for red existed among other native Northeast cultures as well, possibly because of a shared sense of its symbolic value. In comparing bead assemblages from the late sixteenth to the middle seventeenth centuries, it appears that red beads were much more prevalent in the Northeast than in the Southeast. Smith (1983:151) noted that “red beads never make up more than 6.5 percent of the varieties in the Southeast, while they are never less than 21.4 percent of the varieties in the Northeast.”

The prehistoric importance of red beads still has influence over the adornment practices of modern women in Highland Ecuador. In the highlands, style of dress is used as an ethnic marker between indigenous and non-indigenous groups (Meisch 1998:149). Typically, non-indigenous women wear only a single strand of beads, if any at all, while indigenous ethnicity can be denoted by wearing “masses of beads” (Meisch 1998:147). Although there is some variation in local customs, red and coral beads are by far the most popular color choice for indigenous women (Meisch 1998:149, 159-160, 164, 169). Red beads were also used in the region during ancient times when they were fashioned from red Spondylus. This tradition of wearing red beads has been continued for centuries in Highland Ecuador and has come to signify indigenous ethnicity (Meisch 1998:172). The native population’s preference was even recognized by the Spanish, who noted the high value of red beads (Meisch 1998:149-153).

Regardless of whether color preferences were influenced by tradition, symbolism, or even current fashions, European traders were directly affected by the choices of native consumers. Even in frontier trading economies it was still important for a trader to stock items
that their Indian customers would find desirable. In the case of beads, this meant having the proper colors, sizes, and styles. The English-based Hudson Bay Company was particularly concerned with properly meeting consumer demand when it began trading in North America. If the English company wished to lure Indian customers away from French traders who were already present in the Northeast and Great Lakes regions, then it would be important to provide the same type of goods that the Indians “were already accustomed to in type, style, or pattern” (Ray 1978:257). Therefore, the English generally offered copies of the French goods being traded in the area, though they were mindful of consumer demand and tried to alter their wares accordingly. Hudson Bay Company’s men were instructed to send back to England samples of what goods were liked and disliked by the Indians (Ray 1978:257-258). In this way the Hudson Bay Company hoped to improve their merchandise to be better suited for the Indian trade and, thereby, increase profits. The practice of sending samples of beads back to be matched was not limited to the Hudson Bay company, however. In 1762, the Directors of Cherokee Trade wrote a letter to merchant Edward Wilkinson acknowledging that they had received the sample of beads he sent, but that they were not able to procure the beads at that time (McDowell 1970:580). A similar letter was sent to the factor at the Catawbas from the Indian Trade Commissioners, which stated that his sample of beads could not be matched yet and that he should send back the bags that he cannot use (McDowell 1955:212). Another English trader, Thomas Rasberry, stressed how important it was for his suppliers to send the right merchandise. In a 1759 letter, Rasberry placed an order for a specific list of trade goods and included the following warning: “as the foregoing are calculated for the Indian Trade I must beg you to acquaint yourself of the right Sorts of those Articles that are now exported for that purpose, particularly in Respect to the Beads” (Hawes 1959:48-49).
While poor quality was usually what caused an item to be deemed unsatisfactory, general Indian preferences were also a concern. In a 1739 letter outlining a long list of complaints, James Isham mentioned that “the Indians disliked the colour and size of the large pearl beads” (Ray 1978:265). A Virginia merchant named William Byrd experienced a similar problem when he did not receive the size of beads that he requested. In July of 1686 he wrote to Perry and Lane, his suppliers, complaining about the mistake: “[The] beads you sent mee large white instead of small. I can by no means put them of, pray (if its not too late) send mee none but small white this year, all others a drug” (sic) (Tinling 1977:64). In November of the same year, Byrd reiterates to Perry and Lane: “If you have not sent mee any small white beads, pray send mee by the 1st opportunity 2 cwt. Lett them bee small or none” (sic) (Tinling 1977:66). Byrd’s correspondence makes it clear that beads can become difficult to sell if certain specifications are not met. He even goes so far as to say that he would rather have no beads at all than beads of the wrong size.

The same problem was also encountered in the European trade with Africa. Like American Indians, native Africans exhibited preferences for certain colors, shapes, and sizes of beads:

A trader would set out with certain kinds of beads recommended to him only to find that the natives with whom he wished to do business were entirely uninterested in his particular bead supply. Perhaps he had brought blue beads and found that he should have brought yellow ones, whereupon he would be obliged to get rid of the blue ones in any way possible and at a loss. Returning confidently in another year or so with yellow beads he would discover that blue beads had become fashionable and that no one would trade for yellow beads (Erikson 1969:59).

While most of these examples have highlighted regional or tribal preferences for certain colors, there is also evidence to suggest that it can be possible to detect preference on a more personal scale. This could be the case with glass bead collections recovered from two house sites at Tukabatchee, a historic Creek town located in Elmore County, Alabama. Excavation units
were opened on sites 1-Ee-272 and 1-Ee-273; the sites are adjacent to one another and both date to ca. 1750-1800 (Knight 1985:42, 109). Roughly the same types of beads were recovered from both units and include various colors of barleycorn, cane, and seed beads, with black, blue, and white being the most common colors (Knight 1985:128, 133). Despite having comparable types of beads, the assemblages vary in color frequencies. Of the 80 beads found at 1-Ee-272, blue was the most frequently occurring color, accounting for 35 percent of the total. Black was a close second with 34 percent, while white was the third most frequent with 26 percent (Knight 1985:Table 5.7). The color proportions were much different, however, in the 253 beads recovered from 1-Ee-273. There, black and white were by far the most dominant colors, representing 45 and 40 percent of the total, respectively. Blue beads only accounted for 8 percent of the total at this site, even though they were the most commonly occurring color at 1-Ee-272 (Knight 1985:Table 5.7). This proves to be a very intriguing discrepancy. The sites represent two separate Creek households less than 100 m apart that had coincident occupation spans lasting only about 50 years. Given their closeness in space and time, it seems reasonable that both households would have had the same beads available to them. Indeed, both sites produced almost the exact same types of beads, yet it appears that the inhabitants of one house preferred black and white beads, while the inhabitants of the other house liked blue and black the best (Knight 1985:128, Table 5.7). Perhaps this is a reflection of mere personal choice, or maybe the selection of colors held a deeper meaning for their Creek owners.

The above instances demonstrate that groups all over North America (and beyond) exercised specific preferences in their selections of glass trade beads. Color, size, and style were all important considerations for many native consumers. These preferences influenced trade bead markets and affected commerce for everyone from early independent traders to large commercial
firms like the Hudson Bay Company. Bead choice was not only a result of local tastes, but could also be influenced by a group’s beliefs and worldview. Although beads should not be seen as a definitive, one-to-one marker of ethnicity or tribal affiliation, the fact that groups held unique preferences for certain beads provides an interesting avenue of study for bead researchers.
CHAPTER 4

METHODOLOGY

This study of Natchez bead assemblages stems from the work of the Historic Natchez Indian Project (HNIP), which was led by Dr. Ian W. Brown in the summer of 2009. Funded by a grant from the University of Alabama’s Academy of Research, Scholarship, and Creative Activity, the project sought to classify privately held artifact collections from sites in the Natchez region. Prior to the HNIP, the last major professional archaeological investigations on historic Natchez sites were carried out in the early 1980s by Harvard University’s Lower Mississippi Survey. In the decades since, amateur archaeologists Joseph Frank and Robert Prospere have discovered over twenty new Natchez sites and have made numerous surface collections from old and new sites alike (Brown, grant application, 2008, Gulf Coast Survey, Tuscaloosa). Thus, the HNIP was granted access to a wealth of previously undocumented artifacts. Fellow graduate student Daniel LaDu and I accompanied Brown in Natchez for four weeks during May and June of 2009 for the purpose of analyzing and making record of these collections, which encompassed a wide range of historic and prehistoric artifact types, including metal objects, lithics, glass, and ceramics. An additional two weeks were spent compiling data and organizing records back at the University of Alabama.

During this six week period, a total of 13,883 beads were classified from the Prospere and Frank collections, a collection owned by the Mississippi Department of Archives and History (MDAH), and a small collection gathered during an HNIP site survey. The sections
below outline the details of each collection, as well as the methods by which they were classified and analyzed.

**Collections**

*Prospere Collection*

Nearly 97 percent of the beads considered in this study are from Prospere’s extensive collection. Having collected in the Natchez area for many years with a strong penchant for glass trade beads, Prospere has amassed a total of 13,440 beads through multiple surface collections of the Cloy and Rice Cemetery sites. In recent years, logging activities on the Cloy site have resulted in major soil disturbances, thereby exposing previously buried artifacts, including an abundance of beads. Despite originating from only two sites, the collection is very diverse. All major forms of drawn bead construction are represented (simple, complex, compound, and composite), as well as several different types of wire-wound beads. In all, 48 different varieties of beads are present. The beads in the Prospere collection have been kept categorized by site, though provenience beyond the site level is unknown.

*Frank Collection*

Frank’s collection of 322 glass beads is the second largest analyzed in this study. Like Prospere, Frank has been heavily involved in the amateur archaeology of the Natchez region for decades. He has collected beads from the surface of 19 different Natchez sites, though the majority of his beads were found at Fatherland and Cloy. Twenty-six distinct varieties of beads are present in the collection, including simple, complex, compound, and composite drawn beads and a few
types of simple construction wire-wound beads. Provenience of the beads is limited to the site level.

*Mississippi Department of Archives and History (MDAH) Collection*

The MDAH owns a collection of 117 glass beads from the Play site. The beads were found at Play by some children who turned them over to the MDAH’s Grand Village of the Natchez Indians museum, where the beads are still stored. The collection contains six varieties of simple, complex, and composite drawn beads. I was granted access to the collection by James Barnett, director of the MDAH’s Division of Historic Properties.

*Gulf Coast Survey (GCS) Collection.* As part of the HNIP, basic pedestrian survey and mapping was carried out at the Village Sauvage site. Though not the primary focus of the survey, this effort did yield a small number of artifacts collected from the surface of the site. These are now part of the collections maintained by the GCS. Included were four drawn beads of four different varieties.

**Bead Typology**

At first glance, the classification of beads would seem to be a fairly straightforward task that might be achieved with simple descriptive phrases like “large blue bead with white stripes” or “small white bead.” Considering the multitude of construction methods, sizes, shapes, colors, and styles of trade beads in existence, however, it becomes apparent that a more detailed and standardized approach must be taken. To this end, researchers have developed multiple glass
bead classification systems. For this study I have chosen to use the typology set forth by Brain (1979:96-113).

Brain devised the typology to classify over 186,000 glass beads from the Trudeau site, an eighteenth-century Tunica Indian site located in West Feliciana Parish, Louisiana, which is famous for yielding an immense artifact collection known as the “Tunica Treasure” (Brain 1979). Since Brain’s typology is based on a collection from the Lower Mississippi Valley with beads dating primarily to the Middle Historic period (1670 - 1760 A.D.), the system is well-tailored for the classification of beads from Natchez (Brain 1979:97). Furthermore, the Brain typology has been used in previous Natchez Indian research (Brown 1985). Drawing from the widely used Kidd and Kidd (1970) classification system, Brain’s typology divides beads between drawn and wire-wound (Brain 1979:98). Each group is then further subdivided into classes, types, and varieties, represented by Roman numerals, capital letters, and Arabic numerals, respectively.

**Drawn Beads**

Drawn beads are separated into classes and types based on construction method and whether they possess straight or rounded ends. Rough ends exist on beads that have received little to no reheating after being chopped off from a single large tube during the manufacturing process. Long and tubular with flat, straight ends, they are often referred to as “bugle” beads (Brain 1979:100)—a term used even in modern bead working. There are no rough end beads in the Natchez collections analyzed, but rather only rounded end beads. As the name would suggest, rounded ends are present on beads that have been reheated and formed into round or oval shapes after being chopped into single tube beads. Aside from rough or rounded ends, Brain
also makes distinctions in bead class and type based on the number of glass layers and whether or not surface decoration has been applied. The four major categories of bead construction are simple, compound, complex, and composite (Brain 1979:98). The definitions of each term can be found in Table 4.1. Using the aforementioned criteria, Brain identifies four classes of drawn beads (I - IV), each with two types (A and B) (Table 4.2). Varieties are noted with an Arabic numeral and are assigned based on characteristics like size, shape, color, and opacity.

Table 4.1. Bead construction methods (Brain 1979:98).

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<th>Type of Construction</th>
<th>Definition</th>
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<tr>
<td>Simple</td>
<td>A bead with a single layer of glass</td>
</tr>
<tr>
<td>Compound</td>
<td>A bead with two or more layers of glass</td>
</tr>
<tr>
<td>Complex</td>
<td>A simple bead with surface decoration</td>
</tr>
<tr>
<td>Composite</td>
<td>A compound bead with surface decoration</td>
</tr>
</tbody>
</table>

Table 4.2. Drawn bead classes and types (Brain 1979:98).

<table>
<thead>
<tr>
<th>Type and Variety</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIA</td>
<td>Rough ends, simple construction</td>
</tr>
<tr>
<td>DIB</td>
<td>Rough ends, complex construction</td>
</tr>
<tr>
<td>DIIA</td>
<td>Rounded ends, simple construction</td>
</tr>
<tr>
<td>DIIB</td>
<td>Rounded ends, complex construction</td>
</tr>
<tr>
<td>DIIIA</td>
<td>Rough ends, compound construction</td>
</tr>
<tr>
<td>DIIIB</td>
<td>Rough ends, composite construction</td>
</tr>
<tr>
<td>DIVA</td>
<td>Rounded ends, compound construction</td>
</tr>
<tr>
<td>DIVB</td>
<td>Rounded ends, composite construction</td>
</tr>
</tbody>
</table>
In this study I have used the designations for drawn beads as they exist in Brain 1979, except that I have included “D” at the beginning of the nomenclature (e.g., DIA2) so that it is immediately apparent that the label refers to a drawn specimen. This style of notation was originally used by Brown (1979:303-309). Only types DIIA, DIIIB, DIVA, and DIVB were present in the collections studied, though the specific varieties found will be described in the next chapter.

Wire-Wound Beads

Brain defines classes of wire-wound beads in much the same manner as drawn beads. There exists three classes (I - III), each preceded by “W” to indicate that they are wire-wound (Table 4.3). The classes are based on construction method, shape, and added decoration. Each class has a number of types that further refines the details of a bead’s shape and decoration (Brain 1979:100). While the number of wire-wound beads included in the studied collections was relatively small, beads from multiple types in all three classes were present. A more in-depth discussion of the types and varieties will follow in the next chapter.

Table 4.3. Wire-wound bead classes (Brain 1979:100).

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WI</td>
<td>Simple construction, simple shape</td>
</tr>
<tr>
<td>WII</td>
<td>Simple construction, altered shape (faceted, molded, etc.)</td>
</tr>
<tr>
<td>WIII</td>
<td>Complicated construction (layered, inlaid, and other forms of decoration)</td>
</tr>
</tbody>
</table>
Laboratory Methods

All beads were classified and tabulated in the summer of 2009. I was personally responsible for all classification, but was fortunate enough to have Dr. Prospere’s help in the monumental task of counting his collection. I analyzed the Frank and GCS collections in the HNIP’s temporary laboratory space in the National Park Service’s facilities in Natchez, while the Prospere collection was analyzed at the Prosperes’ home. The MDAH collection was analyzed at the museum of the Grand Village of the Natchez Indians.

For the Frank, MDAH, and GCS collections, each bead was individually examined, sorted, and then counted. Dr. Prospere, however, had strung many of the beads in his collection into necklaces. This aided in the sorting and counting process, since the strands usually contained a single bead variety or multiple varieties arranged in regular, repeating patterns (e.g., one blue bead followed by five white beads, and so on). The beads were not taken off the strands but, rather, each strand examined as a whole. The varieties present on each necklace were identified, and then a count was made.

Bead classification began by first determining the method of construction. The wire-wound beads in these collections were, for the most part, easily identifiable as such. They tend to be much larger than drawn beads, and often have particular shapes and decorations unique to the wire-wound group. Still, close visual inspection, sometimes aided by a magnifying glass, was used to verify the method of manufacture as evidenced by characteristics of the glass. The glass in drawn beads runs longitudinally—that is, it shows signs of being stretched end to end (Kidd and Kidd 1970:50). Wire-wound beads, however, are made of glass arranged in a circular or spiral pattern around the bead’s circumference (Kidd and Kidd 1970:50). These features of the glass become even more apparent when a bead has suffered some corrosion. The shape and
direction of striations or air bubbles in the glass can also help differentiate between the two methods (Kidd and Kidd 1970:50). After a bead was classified as drawn or wire-wound, it was examined to establish if it was of simple or compound construction and whether or not surface decoration was present. Compound beads (i.e., beads comprised of multiple layers of glass) are polychrome and the separate layers can be seen on the ends of the bead.

With these determinations made, it was possible to narrow down the classification to a class and type. Next, a bead’s color, size, shape, and opacity were inspected. I made color assessments by consulting the descriptions and color photographs of different bead varieties in Brain (1979:Plates I-IV). Due to the nature of bead manufacturing processes, slight color variations may occur even among beads of the same variety (Kidd and Kidd 1970:50). Thus, describing a bead’s general color seems more useful than using a plethora of different Munsell values (Brain 1979:100). Following this logic, I eschewed Munsell designations (as did Brain), and instead relied on straightforward color descriptions like “blue-gray,” “white,” and “turquoise blue.” For beads of an unspecified variety, I used color descriptions from Brain where possible. If not included in Brain’s typology, I would then reference the color illustrations and terms in Kidd and Kidd (1970:54-63, 66). This was done in an effort to make color classifications more standardized and less subjective.

To describe a bead’s size, Brain (1979:98) used a series of size categories originally defined by Kidd and Kidd (1970:66) (Table 4.4). Bead sizes are referred to with the terms “short,” “standard,” and “long,” depending on the ratio of a bead’s length to its diameter (Table 4.5). If a bead was found to be in the general shape and size range for its variety, as specified by Brain, then its particular measurements were not recorded. For unspecified varieties, the size and
shape was noted using the terminology outlined above and, in most cases, specific measurements of a bead’s length, diameter, and center perforation were noted.

Table 4.4. Bead size categories (Brain 1979:98).

<table>
<thead>
<tr>
<th>Size Category</th>
<th>Definition (based on diameter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very small</td>
<td>Less than 2 mm</td>
</tr>
<tr>
<td>Small</td>
<td>2 to 4 mm</td>
</tr>
<tr>
<td>Medium</td>
<td>4 to 6 mm</td>
</tr>
<tr>
<td>Large</td>
<td>6 to 10 mm</td>
</tr>
<tr>
<td>Very large</td>
<td>More than 10 mm</td>
</tr>
</tbody>
</table>

Table 4.5. Bead shape terminology (after Brain 1979:98).

<table>
<thead>
<tr>
<th>Shape</th>
<th>Definition</th>
<th>Other terminology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short</td>
<td>Diameter greater than length</td>
<td>Drawn: round \ Wire-wound: donut</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Standard</td>
<td>Drawn: round \ Wire-wound: spheroidal, round</td>
</tr>
<tr>
<td></td>
<td>Equal length and diameter</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Long</td>
<td>Drawn: tubular, cane \ Wire-wound: oval, barrel</td>
</tr>
<tr>
<td></td>
<td>Length greater than diameter</td>
<td></td>
</tr>
</tbody>
</table>

It is important to note that the varieties in Brain’s typology often include beads of multiple shapes and sizes. For instance, any drawn, opaque, white bead of simple construction would be classified as variety DIIAI, regardless of size or shape (Brain 1979:101). In this respect, the typology may have limitations when used to delineate the use or function of specific beads. Very small beads, for example, are more likely to have been embroidered onto fabric,
while larger ones might have been incorporated into jewelry or used as hair adornments. In order to avoid losing all data on size variability, I chose to split varieties into “seed” and “necklace” categories. Very small beads (less than 2 mm in diameter) were assigned to the seed bead category, while anything larger was classified as a necklace bead. Here the term “necklace” is not intended to imply that all beads of this size were used in necklaces, but rather it is just a size designation commonly used by bead researchers to describe non-seed beads. In some cases, size differentiations were not made during the data recording process, in which case “no size specified” is indicated.

Opacity was determined by holding a bead up to a bright light. The term “opaque” was used to describe glass that did not allow any light to pass through. “Translucent” glass beads allowed some light to pass, but diffused it in such a way that it you could not clearly see through to the other side of the bead. Beads made of glass that could be easily seen through were labeled “transparent.”

Once these assessments of color, size, shape, and opacity were made, a variety was assigned. Each variety was counted, and those totals were placed on data collection sheets maintained for each site within each collection. The specifics of each individual bead were not recorded, except if the variety of a bead was undetermined. In that case, detailed information on the bead was noted to assist with later classification. Over 80 digital photographs of beads were made, with at least one photo taken of nearly every variety identified in the collections. Special care was taken to photograph unspecified varieties.

At the end of the data collection period, there were still some beads for which appropriate varieties did not exist within the Brain typology. Some designation was necessary, however, so that these beads could be properly analyzed and discussed. As such, I developed “provisional
varieties,” which are indicated with a capital letter in parenthesis (i.e., DIIA(A)). Many of these provisional varieties include only a few specimens, so it is unclear whether or not they should be considered as formal varieties of the typology. Therefore, the delineation of provisional varieties here is solely intended to aid in discussion, analysis, and comparison. As further research allows, these varieties may be expanded upon, amended, and perhaps even formalized, but at this point they should not be viewed as official additions to the Brain typology.

**Bead Color Categorization**

Since this study is designed to assess color preferences for glass trade beads, it is obviously necessary to evaluate beads on the basis of color. Within the 52 bead varieties included in these collections, color descriptions usually go beyond basic primary colors, and distinctions are often made between different shades of the same color (e.g., turquoise, powder blue, or blue-gray). This specificity helps with the classification and recognition of beads, but is too fine-grained to be a practical framework for grouping beads by color; after all, the color categories would be too numerous and many would contain only one variety. Instead, broader, more inclusive color categories are needed. Based on the beads present in the collections, the following color categories were devised: black, blue, clear, green, red, white, yellow, and multicolor. The bead varieties assigned to each of these categories are shown in Table 4.6.

Most of the color categorizations were rather straightforward, since many of the beads are monochrome varieties. Polychrome beads made up of two shades of the same color (e.g., a light blue outer layer over a gray-blue core) were placed into that color’s category. Polychrome beads with differing colors, however, were assigned to the multicolor category. The multicolor category was necessary because it would be difficult to assume that a bead was liked for one
particular color over another. For instance, how could it be known if a white bead with blue stripes was selected because someone liked the blue stripes, when it could just as easily have been the white background, or the combination of the two colors that was the actual attraction?

Table 4.6. Bead color categories.

<table>
<thead>
<tr>
<th>Color Category</th>
<th>Bead Varieties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>DIIA5</td>
</tr>
<tr>
<td>Blue</td>
<td>DIIA6-8, DIIA(A), DIVA(A), WIA2, WID(A), WIIB1, WIIB(A), WIIIA(A)</td>
</tr>
<tr>
<td>Clear</td>
<td>DIIA3, DIVB1, WIA7, WIIA2</td>
</tr>
<tr>
<td>Green</td>
<td>DIIA9-10, DIIA15, DIIA17, DIIA(C)</td>
</tr>
<tr>
<td>Red</td>
<td>DIVA2, WIC(A)</td>
</tr>
<tr>
<td>White</td>
<td>DIIA1, DIVA1</td>
</tr>
<tr>
<td>Yellow</td>
<td>DIIA(B)</td>
</tr>
<tr>
<td>Multicolor</td>
<td>DIIB2-5, DIIB7, DIIB10, DIIB13, DIIB15, DIIB(A-M), DIVB2-4, DIVB6, WIIA(A)</td>
</tr>
</tbody>
</table>

Note: Provisional varieties are shown as capital letters in parentheses.

Ten beads were excluded from the color classification altogether. The beads are varieties WIA1 (n = 3) and WIC1 (n = 7), both of which Brain (1979:107-108) describes as translucent pale blue, though the opacity increases in larger specimens. While the 10 beads analyzed for this project fit the sorting criteria for WIA1 and WIC1, it was difficult to determine if the beads were very pale blue or white. In the center of these beads where the glass is thickest, the beads appear almost opaque white. Toward the thinner edges, however, the very pale translucent blue color Brain describes becomes visible. Still, this tinge of color depends on the light in which the beads are being viewed. Even the examples Brain provides of WIC1 beads appear to be more white.
than blue. This confusion creates uncertainty about how native consumers might have viewed these beads and, therefore, a color assessment was withheld.

Classification of Sites into Settlement Districts

Table 4.7. List of sites by settlement district.

<table>
<thead>
<tr>
<th>Settlement District</th>
<th>Site Name</th>
<th>Site Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flour</td>
<td>Bug Buster</td>
<td>22-Ad-1046</td>
</tr>
<tr>
<td></td>
<td>Cloy</td>
<td>22-Ad-973</td>
</tr>
<tr>
<td></td>
<td>Elly Smith</td>
<td>22-Ad-1042</td>
</tr>
<tr>
<td></td>
<td>Racket (Quail Run)</td>
<td>22-Ad-754</td>
</tr>
<tr>
<td></td>
<td>Village Sauvage</td>
<td>22-Ad-590</td>
</tr>
<tr>
<td></td>
<td>Wanda Smith</td>
<td>22-Ad-1043</td>
</tr>
<tr>
<td></td>
<td>Wilkie</td>
<td>22-Ad-813</td>
</tr>
<tr>
<td>Grand Village</td>
<td>Beaumont M.P.&amp;L.</td>
<td>22-Ad-1026</td>
</tr>
<tr>
<td></td>
<td>Fatherland</td>
<td>22-Ad-501</td>
</tr>
<tr>
<td></td>
<td>Magnolia I</td>
<td>22-Ad-1047</td>
</tr>
<tr>
<td></td>
<td>Merly Habitation</td>
<td>22-Ad-1048</td>
</tr>
<tr>
<td></td>
<td>Play</td>
<td>22-Ad-812</td>
</tr>
<tr>
<td></td>
<td>Rosalie Mound and Fort</td>
<td>22-Ad-1032</td>
</tr>
<tr>
<td>Grigra</td>
<td>Antioch</td>
<td>22-Ad-631</td>
</tr>
<tr>
<td></td>
<td>Dead Oak</td>
<td>22-Ad-789</td>
</tr>
<tr>
<td></td>
<td>Perkins Creek</td>
<td>22-Ad-629</td>
</tr>
<tr>
<td></td>
<td>Trinity</td>
<td>22-Ad-783</td>
</tr>
<tr>
<td>Jenzenaque</td>
<td>Rice Cemetery</td>
<td>22-Ad-547</td>
</tr>
<tr>
<td>Tioux</td>
<td>International Paper (I.P.)</td>
<td>22-Ad-588</td>
</tr>
<tr>
<td>White Apple</td>
<td>House Mover</td>
<td>none</td>
</tr>
</tbody>
</table>

The beads in these collections originated from 20 historic Natchez sites across all six settlement districts, though the majority of sites were located within the Flour and Grand Village districts. Sites were classified into settlement districts based on their geographic locations (Table 4.7). Some caution should be taken when simply ascribing a site to a particular district, however,
because it may lead to inaccurate assumptions. The Natchez settlement districts were not defined by concrete, immutable boundaries and may have changed through time, especially as the Natchez adopted new groups. For instance, Brown (1985:6, 10, 190) noted that some sites in the Grigra district may have actually predated the Grigra’s existence in the area. Since this study is considering only trade beads and not indigenous artifacts, however, the sites are already limited to those with historic period occupations. Furthermore, the Natchez were forced to abandon their homes following their rebellion against the French, so the deposition of trade beads at Natchez sites has a terminus ante quem of 1731. With these two temporal boundaries, the occupation or use of sites containing glass trade beads is limited to the few decades between the late seventeenth-century and 1731. Though this does not completely preclude the possibility of associating a site with a settlement district that it actually predates, it does narrow the chances.
CHAPTER 5

SUMMARY AND DESCRIPTION OF BEAD VARIETIES ANALYZED

A total of 13,883 glass trade beads were analyzed for this research. The beads originated from 21 sites in the Natchez area, though the vast majority was recovered from the Cloy and Rice Cemetery sites. Nearly all of the beads examined were constructed using the drawn method. In fact, only 205 wire-wound specimens were present across the collections—a mere 1.48 percent of the entire sample. This paucity of wire-wound beads is probably attributable to the fact that Natchez sites were largely abandoned by 1730. Wire-wound beads generally do not appear on historic sites prior to 1700 and are more common from the mid-eighteenth-century onward (Brain 1979:100-113; Marcoux 2008:161, 164; Wray and Schoff 1953:60). So, while the Natchez clearly had some access to wire-wound beads, the low occurrence of such suggests that these beads were not yet widely available, were less popular than drawn beads, or that they were more expensive and exclusive than drawn beads. Tubular beads (i.e., drawn beads with rough ends) are entirely absent from the collections analyzed. This is not altogether surprising given that these beads are fairly rare in the Southeast. Even the Trudeau collection, which at 186,200 beads is the largest available sample for French colonial trade beads, contains only 370 tubular beads (less than a quarter of a percent of the sample) (Brain 1979:100-101). While tubular beads can be found at sites from the Great Lakes region, including Fort Michilimackinac (Stone 1974:88-107), Rock Island, and Fort St. Joseph (Malischke 2009:61), they are not common in French Louisiana (Smith 2002b:58).
The sections that follow will outline the varieties present in the Natchez collections studied. For each variety, the sample size and provenience will be given, along with any other pertinent information. Example photographs have been included for many varieties. For those varieties already defined by Brain (1979), the reader will be referred to the previously published description. Since most simple monochrome beads were available and used in trade for many years (sometimes even centuries), they are usually of little chronological importance (Smith 2002b:58). As such, temporal ranges will only be discussed here if the variety is thought to be dated tightly enough to be a chronological marker or is of some other significance. Brain (1979) includes temporal ranges for most of the beads in his typology, but Smith (2002:57) warns that these ranges may be artificially long and imprecise. Many of the ranges are now considered inaccurate because they are based on sites for which original excavators made poor estimates of occupation spans (Smith 2002b:57).

**Drawn Beads**

*Drawn Class II*

Class II drawn beads are simple beads with one layer of glass. Their ends have been rounded through a process of reheating and tumbling. Surface decoration may or may not be present (Brain 1979:101).

*Drawn Class II, Type A*

These are simple monochrome beads with no surface decoration (Brain 1979:101).
Figure 5.1. DIIA1 beads, showing three different shapes. 
Provenience: Cloy, Prospere Collection.

**DIIA1**

**Sample:** 5436

**Provenience:**
- Beaumonte M.P.&L. 5
- Bug Buster 1
- Cloy 5255
- Dead Oak 1
- Fatherland 102
- Magnolia I 4
- Merly Habitation 1
- Perkins Creek 1
- Racket (Quail Run) 1
- Rice Cemetery 47
- Rosalie Mound 2
- Trinity 1
- Village Sauvage 3
- Wilkie 12

**Description:** Opaque, white beads (see Brain 1979:101).

**Comments:** There are 3,143 necklace beads and 2,177 seed beads. Size was not recorded on the remaining 116 DIIA1 specimens. The sample contains several different shapes including
peanut, barrel, oval, and round. Yellowing has occurred on the surface of many of the beads. Some are imperfectly formed and have a somewhat lopsided or bulbous appearance. Fourteen of the beads from this sample are broken and one bead has been burned.

Variety DIIA1 accounts for 39.16 percent of the overall sample, making it the second most numerous variety among the Natchez collections. Indeed, DIIA1 is perhaps the most common bead variety recovered from historic sites (Brown 1979:954), especially since it includes such a broad range of shapes and sizes. The beads are widely distributed both spatially and temporally. They are particularly common at sites within French trade regions, but are rarer at Spanish associated sites (Brown 1979:955).

DIIA3

Sample: 3

Provenience: Cloy 3

Description: Transparent, clear beads (see Brain 1979:101).

Comments: Of the three specimens in this sample, two are large oval beads and one is small and round. Some yellowing of the glass is present. One of the oval beads is 15 mm long, which is a bit larger than the 2 to 12 mm length range specified by Brain (1979:101). The bead’s diameter (9 mm) and perforation (2 mm) are within Brain’s ranges.
Figure 5.2. DIIA5 bead (center) on strand with other beads. (The beads were strung by Frank after being individually recovered.)
Provenience: Cloy, Frank Collection.

DIIA5

Sample: 19

Provenience:
- Cloy: 2
- Fatherland: 1
- Rice Cemetery: 14
- Village Sauvage: 2

Description: Opaque, black beads (see Brain 1979:102).

Comments: Though the glass looks black, close examination under a bright light reveals it to be a dark burgundy or maroon color. Stone (1974:90) dates his similar variety of black beads (Class I, Series A, Type 1, Variety c) to the 1700 to 1740 range, but Brain (1979:102) proposes a much longer range of 1600 to 1890.
DIIA6

Sample: 72

Provenience:  
Beaumont M.P.&L.  5  
Cloy  27  
Fatherland  9  
International Paper  2  
Rice Cemetery  29

Description: Translucent, dark blue beads (see Brain 1979:102).

Comments: Size was noted on 31 of the 72 DIIA6 beads. Of those, 21 are necklace beads and 10 are seed beads. This variety has a wide spatial distribution, but occurs most commonly at sites that date from 1700 to 1740 (Brain 1979:102; Brown 1979:965). Still, DIIA6 beads can be found at sites up through the nineteenth-century, so they cannot be used as absolute chronological markers of the early 1700s.
Figure 5.4. DIIA7 bead. Provenience: Cloy, Prospere Collection.

DIIA7

Sample: 7314

Provenience:  
- Antioch: 1
- Cloy: 2738
- Fatherland: 8
- Play: 17
- Rice Cemetery: 4549
- Village Sauvage: 1

Description: Opaque, turquoise beads (see Brain 1979:102-103).

Comments: Totaling 6,640, seed beads make up most of the sample. Only 620 of the DIIA7 beads are necklace size. Size differentiations were not made on the remaining 54 beads. Overall, the beads range from very small to very large and come in an assortment of shapes including oval, barrel, square, and round. Their surfaces vary from dull to shiny. Comprising 52.68 percent of the total beads analyzed, DIIA7 is the most common variety in the Natchez collections. Though this variety was in use from 1600 until at least as late as 1836 (Brain 1979:103), Brown (1979:966) finds that it was most common from 1700 to 1764.
**DIIA8**

*Sample:* 66

*Provenience:* Rice Cemetery 66

*Description:* Opaque powder blue beads (see Brain 1979:103).

**DIIA9**

*Sample:* 40

*Provenience:* Rice Cemetery 40

*Description:* Translucent, aqua beads (see Brain 1979:103).

![Figure 5.5. DIIA10 bead. Provenience: Cloy, Prospere Collection.](image)

**DIIA10**

*Sample:* 11

*Provenience:* Cloy 8

Fatherland 1

Trinity 1
Wanda Smith 1

Description: Opaque, aqua beads (see Brain 1979:103).

Comments: Although Brain states the beads have shiny surfaces, some in this sample had a dull, matte finish. On some of the beads, imperfections can be seen on the surface of the glass and there is some brown discoloration present.

Figure 5.6. DIIA15 bead. Provenience: Cloy, Prospere Collection.

DIIA15

Sample: 5

Provenience: Beaumonte M.P.&L. 2
Cloy 1
Fatherland 1
Village Sauvage 1

Description: Translucent, dark green beads (see Brain 1979:103).

Comments: This variety is fairly rare at early eighteenth-century sites, and it appears that the Natchez sites considered here are no exception. DIIA15 beads perhaps became more popular
later in the eighteenth-century, and its distribution is known to continue into the 1800s (Brain 1979:103; Brown 1979:71-72).

**DIIA17**

*Sample:* 5

*Provenience:*  
Cloy 4  
Rice Cemetery 1

*Description:* Translucent, turquoise beads (see Brain 1979:103).

![Figure 5.7. DIIA(A) (top) and DIVA(A) (bottom) beads. Provenience: Cloy, Prospere Collection.](image)

**Provisional Variety A of DIIA**

*Sample:* 3

*Provenience:* Cloy 3
**Description:** These are large, opaque, powder blue-gray beads of simple construction. The variety includes two round beads and one oval bead. The round beads have slightly flattened ends. One of the round beads is 7 mm long, with a diameter of 10 mm, and a 2 mm perforation.

**Comments:** Of the existing Brain varieties, Provisional Variety A of DIIA is most similar to Variety DIIA4, which Brain (1979:101-102) describes as “small to large, opaque, light blue.” Though the opacity, shape, and size ranges match the beads of the provisional variety, the colors do not appear to be the same. The color of the provisional variety is darker and has more of a gray tint than the DIIA4 beads shown in Brain’s photographs (see Brain 1979:Plate 1).

*Figure 5.8. DIIA(B) bead. Provenience: Cloy, Prospere Collection.*

**Provisional Variety B of DIIA**

*Sample: 2*

*Provenience: Cloy 2*
Description: These are large, oval-shaped, opaque, mustard yellow beads of simple construction. Both beads in the sample have an 8 mm diameter and a 2 mm perforation. One bead has a length of 13 mm and the other is 15 mm long.

![Figure 5.9. DIIA(C) bead (center) on strand with other beads. (The beads were strung by Frank after being individually recovered.) Provenience: Fatherland, Frank Collection.](image)

Provisional Variety C of DIIA

Sample: 1

Provenience: Fatherland 1

Description: This is a large, oval-shaped, opaque, dark green bead of simple construction. Only a few very minute white imperfections are visible on the surface of the glass. The bead measures 9 mm long, has a 7 mm diameter, and a 3 mm perforation.
**Drawn Class II, Type B**

Type B beads are simple beads with surface decoration applied. Their construction is labeled “complex” (Brain 1979:101).

**DIIB2**

*Sample: 46*

*Provenience:*

<table>
<thead>
<tr>
<th>Provenience</th>
<th>Count</th>
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<tr>
<td>Fatherland</td>
<td>7</td>
</tr>
<tr>
<td>Magnolia I</td>
<td>1</td>
</tr>
</tbody>
</table>

*Description:* Opaque, white beads with four dark blue stripes (see Brain 1979:104).

*Comments:* This variety was introduced by at least 1706, and was perhaps most common prior to 1730 (Brown 1979:73-74). Brown (1979:74) noted that DIIB2 beads have been recovered from many sites around the Red River, and suggested that they may have been included in the trade merchandise brought along during early eighteenth-century expeditions up the river.

![Figure 5.10. DIIB3 bead. Provenience: Cloy, Prospere Collection.](image-url)
**DIIB3**

*Sample:* 2  

*Provenience:* Cloy 2  

*Description:* Opaque, white beads with six spiral blue stripes (see Brain 1979:104).

**DIIB4**

*Sample:* 1  

*Provenience:* Cloy 1  

*Description:* Opaque, white beads with four alternating red and blue stripes (see Brain 1979:104).

![DIIB5 bead](image)

Figure 5.11. DIIB5 bead. Provenience: Cloy, Prospere Collection.

**DIIB5**

*Sample:* 10  

*Provenience:* Cloy 7
Description: Opaque, white beads with three multicolor compound stripes (see Brain 1979:104).

Comments: While this variety is not very common, it seems to have been most closely associated with French contexts dating to the first half of the eighteenth century (Brain 1979:104; Good 1972:109; Stone 1974:97).

Figure 5.12. DIIB7 bead. Provenience: Cloy, Prospere Collection.

DIIB7

Sample: 6

Provenience: Cloy 4
Play 2

Description: Opaque, turquoise beads with three sets of red and white compound stripes (see Brain 1979:104).
**DIIB10**

*Sample:* 59

*Provenience:*  
- Cloy: 52
- Fatherland: 3
- Play: 3
- Village Sauvage: 1

*Description:* Opaque, blue-gray beads with three sets of thin blue stripes (see Brain 1979:104-105).
Figure 5.14. DIIB13 bead. Provenience: Cloy, Prospere Collection.

**DIIB13**

*Sample:* 29

*Provenience:*  
Cloy 19  
Play 10

*Description:* Opaque, white beads with three sets of spiral blue stripes (see Brain (1979:105)).
Figure 5.15. DIIB15 bead (center) on strand with other beads. (The beads were strung by Frank after being individually recovered.)

Provenience: Fatherland, Frank Collection.

DIIB15

Sample: 13

Provenience:  
Cloy 6  
Fatherland 5  
Village Sauvage 1  
Wanda Smith 1  

Description: These are large, round, translucent dark blue beads with eight longitudinal opaque white stripes (Brown 1979:975-976). The ends are typically flat, giving the beads a barrel shape. Lengths range from 6 to 11 mm, and diameters from 7 to 8 mm. The perforations are 2 mm wide.

Comments: This type does not appear in the original Brain (1979) typology, but was subsequently defined by Brown (1979) in his study of artifacts from the Yazoo Bluffs region of the Lower Mississippi Valley. The bead from Village Sauvage is included here because its size,
color, and surface decoration meet the sorting criteria for the DIIB15 variety. It does vary in shape, however, since it is oval and does not possess the flattened ends like the other specimens. This means that with a length of 11 mm the bead is longer than the typical DIIB15 bead. The diameter and perforation measurements were comparable to other beads from the variety. The stripes seem to have been applied rather sloppily on the oval bead.

![Figure 5.16. DIIB(A) beads, showing two different shapes. Provenience: Cloy, Prospere Collection.](image)

*Provisional Variety A of DIIB*

*Sample: 2*

*Provenience: Cloy  2*

*Description:* These are very large, opaque black beads with thin, opaque white, spiral longitudinal stripes. Of the two specimens making up this provisional variety, one was oval and the other was short and round with somewhat flattened ends. The oval bead was 16 mm long at
its widest point, had a diameter of 10 mm, and a 3 mm perforation. The short round bead was
only 9 mm long, but had a 12 mm diameter and a 5 mm perforation.

Comments: Brain’s WIIIA3, which is black with spiral white stripes, shares similarities
with the Provisional Variety A of DIIB3 that I have proposed (Brain 1979:112, Plate IV). The
major exception here, of course, is that WIIIA3 is a wire-wound variety whereas Provisional
Variety A is drawn. Smith (2002b:57), however, believes that Brain incorrectly identified some
varieties (including WIIIA3) as wire-wound when they were actually made using drawn
construction techniques. It is then possible that WIIIA3 and Provisional Variety A of DIIB could
be one in the same, but I have decided against using the wire-wound variety label to avoid
confusion.

Additionally, this variety appears similar to Stone’s Class I, Series C, Type 3, Varieties e
and f from Fort Michilimackinac, though he refers to the color as brown instead of black (Stone
1974:98-99, Figure 48). This may be due to the fact that black glass trade beads are often found
to be “a deep maroon or brownish-purple” when placed under a very bright light (Good
1972:126). I find black to be a more fitting color description than brown, especially since the
beads look black under normal viewing conditions.
Provisional Variety B of DIIB

*Sample:* 30

*Provenience:* Cloy 30

*Description:* These are large, oval, opaque white beads with six opaque, red, spiral stripes. One of the beads has a length of 11 mm, an 8 mm diameter, and a 2 mm perforation. The other beads do not vary much from these dimensions.

*Comments:* My Provisional Variety B of DIIB has been identified by Kidd and Kidd (1970:58, 74) as IIb’6 and as Class I, Series C, Type 1, Variety c by Stone (1974:98, Figure 48). According to Smith (2002b:58-59), this variety may be an important chronological marker. Their presence at some early eighteenth-century sites and absence from later sites like Trudeau suggests that the beads were in use between 1711 and 1731 (Smith 2002b:59).
Provisional Variety C of DIIB

Sample: 1

Provenience: Cloy 1

Description: This is a large, round, opaque, white bead with four dark blue, spiral stripes. It measures 9 mm long, has a diameter of 10 mm, and a perforation of 2 mm.

Comments: This variety is very similar to DIIB2, but the stripes are spiral instead of straight. The blue glass used to make the stripes is also darker than the DIIB2 beads from Trudeau (1979:Plate II).

Provisional Variety D of DIIB

Sample: 2

Provenience: Cloy 2
**Description:** These are large, oval, opaque white beads with six alternating spiral stripes of red, blue, and green. They have a length of 11 mm, a diameter of 8 mm, and a perforation of 2 mm.

**Comments:** Typically the stripes on this variety alternate regularly between red, blue, and green. One of the beads from Cloy, however, has an extra green stripe in the place where a blue stripe should be.

Stone’s (1974:94, 98) Class I, Series C, Type 2, Variety b is essentially the same as the variety proposed here, but Stone’s variety only includes round beads. Since his sample is only comprised of 4 beads, it is not surprising to find some variation beyond what he reports. Kidd and Kidd (1970:56, 72) have the IIb40 variety for oval white beads with the same color stripes; however, the stripes are straight and not spiral.

Smith (2002:58-59) states that this bead is rare in French Louisiana, but more common in the Great Lakes region. Using the historically documented occupation spans of the sites where it has been recovered, he determines that this variety was probably in use by 1711 and traded until at least 1719 (Smith 2002b:59).
Provisional Variety E of DIIB

Sample: 2

Provenience: Cloy 2

Description: These are medium to large, oval, slightly translucent, dark blue beads with three straight, longitudinal, opaque, white stripes. Each has a length of 10 mm, a diameter of 6 mm, and a 2 mm perforation.

Comments: Provisional Variety E of DIIB is equivalent to Kidd and Kidd’s IIb73 (1970:57, 72). Because this variety is present at several early eighteenth-century sites, but not at Trudeau, it likely predates 1731 (Smith 2002b:59).
Provisional Variety F of DIIB

Sample: 3

Provenience: Cloy 2
Fatherland 1

Description: These are large, barely translucent, dark blue beads with five opaque, white, spiral stripes. Two oval beads and one barrel-shaped bead with flattened ends are present in the sample. The oval beads have lengths of 11 mm and 13 mm, while the barrel-shaped bead is only 8 mm long. All three beads have 9 mm diameters and 2 mm perforations.

Comments: Though all are translucent dark blue with five white spiral stripes, each bead in this sample has a unique appearance. The oval bead from Fatherland has a dull surface and is made of less translucent glass than the oval bead from Cloy, which is shiny and more translucent. Other than having spiral stripes instead of straight, the barrel-shaped specimen from Cloy is very similar to DIIB15. Despite these differences, I have opted to include all three in the same variety.
Like Provisional Variety E of DIIB (blue with three white stripes), Smith (2002:59) believes that this variety occurs only in the first third of the eighteenth-century, prior to 1731.

![DIIB(G) bead](image)

Figure 5.21. DIIB(G) bead. Provenience: Fatherland, Frank Collection.

**Provisional Variety G of DIIB**

*Sample:* 1

*Provenience:* Fatherland  1

*Description:* This is a medium, translucent, pale blue-gray bead with longitudinal red and dark blue stripes. The stripes are in sets of two, with one blue and one red stripe appearing close together (but not touching). There are five sets evenly spaced around the bead, though one set is lacking the blue stripe. The glass is in poor condition and deterioration is apparent on the surface of the bead. One end of the specimen is broken off. As is, it measures 10 mm long, has a diameter of 6 mm, and a 2 mm perforation. Diameter and perforation measurements were not affected by the bead’s fragmentary state.
Provisional Variety H of DIIB

*Sample:* 1

*Provenience:* Cloy 1

*Description:* This is a large, oval, translucent, light blue-gray bead with 17 alternating thin dark blue, red, and white stripes. There were five white stripes and six stripes each of red and dark blue. It is 10 mm long, has a 9 mm diameter, and a 2 mm perforation.

*Comments:* The provisional variety presented here is probably just a minor variation on a similar variety with only 15 stripes that has been reported at two Dauphin Island sites off the coast of Alabama, as well as at Pilgrim Bayou, a Natchez village site (Smith 2002b:59). This makes the variety a potential chronological marker for the second decade of the eighteenth century (Smith 2002b:59).

Provisional Variety I of DIIB

*Sample:* 2
Provenience:  Cloy  
Rice Cemetery  

Description: These are small, opaque, turquoise beads with three longitudinal white stripes. One was round and the other oval.

Comments: This provisional variety is equivalent to Kidd and Kidd’s IIb56 (1970:57, 72). These beads were examined through glass display cases, so it was not possible to obtain specific measurements.

Provisional Variety J of DIIB

Sample: 1

Provenience: Cloy  

Description: This is an oval, opaque, turquoise bead with alternating red, dark blue, and white stripes.

Comments: No measurements were taken since the single specimen in this variety was examined only through a glass display case.
Provisional Variety of K of DIIB

Sample: 10

Provenience: Cloy 10

Description: These are large to very large, round, barrel-shaped, translucent, teal beads with longitudinal, opaque, white stripes. The ends have been completely flattened, almost to the point of being concave on some of the beads. Lengths range from 8 to 9 mm, and diameters range from 10 to 11 mm. The perforations are 2 mm wide.

Comments: As mentioned earlier, there is reason to believe that the WIIIA1, WIIIA2, and WIIIA3 varieties in Brain (1979:112, Plate IV) were originally misidentified as wire-wound and are in fact drawn beads (Smith 2002b:57). Provisional Variety K of DIIB looks identical to WIIIA1 from Trudeau, but I have opted to form this new provisional variety so that it is clear I am referring to drawn, not wire-wound, beads.
Provisional Variety L of DIIB

Sample: 1

Provenience: Cloy 1

Description: This is a large, oval, opaque, white bead with four compound stripes. Each compound stripe is comprised of a dark greenish-yellow stripe with a blue stripe on either side. The stripes occur in a roughly spiral pattern, but they seem to have been applied in a rather messy fashion. The result is somewhat wavy stripes that form a “V” shape. The bead is 13 mm long, with a diameter of 9 mm, and a 2 mm perforation.

Provisional Variety M of DIIB

Sample: 3

Provenience: Cloy 3

Description: These are large, oval, opaque, white beads with compound spiral stripes of red, blue, and green.
Comments: These are most similar to DIIB5, but have spiral stripes instead of straight. The colors of the stripes vary slightly as well. No specific measurements were taken on these beads because they were viewed through a glass display case.

Drawn Class IV

Class IV beads are compound, meaning they are made of two or more layers of glass. They have edges rounded by a process of reheating and tumbling. Surface decoration may or may not be present (Brain 1979:105).

Drawn Class IV, Type A

These are compound beads with no surface decoration (Brain 1979:105).

DIVA1

Sample: 264

Provenience: Bug Buster 1
              Cloy 227
              Elly Smith 2
              Magnolia I 3
              Wilkie 1

Description: Beads with an opaque, white core and an outer layer of white or clear glass (see Brain 1979:105-106).

Comments: Necklace beads account for 234 beads of this variety’s sample, as compared to only 3 seed beads. There are an additional 27 DIVA1 beads for which no specific size was recorded. DIVA1 is the most common variety of Class IV beads from the collections studied.
DIVA2

Sample: 3

Provenience: Cloy 3

Description: Beads with an inner layer of green glass and an outer layer of opaque, red glass (see Brain 1979:106).

Comments: This sample includes two necklace beads and one seed bead. This variety is known as “Cornaline d’Aleppo,” because the red glass approximates the color of carnelian, a reddish translucent gemstone.
Provisional Variety A of DIVA

Sample: 3

Provenience: Cloy 3

Description: These are large, slightly peanut-shaped, opaque beads with an outer layer of dark grayish-blue glass and a darker, navy blue inner layer. They measure 16 to 17 mm long, have a 7 to 8 mm diameter, and 2 mm perforations.

Drawn Class IV, Type B

This type includes composite beads. The bodies of the beads are made up of at least two layers of glass, which have been decorated with glass inlays either on the surface or between the layers (Brain 1979:106).
Figure 5.27. DIVB1 bead. Provenience: Cloy, Prospere Collection.

DIVB1

Sample: 28

Provenience:  
Cloy 25
Fatherland 2
Play 1

Description: Beads with white stripes between two layers of clear glass (see Brain 1979:106).

Comments: These beads are commonly referred to as “gooseberry” beads, because their inlaid stripes resemble the white striations present on gooseberries.
Figure 5.28. DIVB2 bead. Provenience: Village Sauvage, Frank Collection.

Figure 5.29. DIVB2 bead on end, showing gray core. Provenience: Village Sauvage, Frank Collection.

DIVB2

Sample: 3
**Provenience:** Village Sauvage 1
Wilkie 2

**Description:** Beads with a gray core and an opaque white outer layer with four thick blue stripes (see Brain 1979:106).

**Comments:** Variety DIVB2 beads are fairly uncommon, but are usually associated with French sites. Brown’s chronological bracketing technique suggests that they may have been most widely distributed between 1714 and 1764, however, even the huge sample from Trudeau contained only two DIVB2 specimens (Brain 1979:106; Brown 1979:82).

![Figure 5.30. DIVB3 bead. Provenience: Cloy, Prospere Collection.](image)

**DIVB3**

**Sample:** 53

**Provenience:** Cloy 45
Magnolia I 1
Play 5
Wilkie 2
Description: Beads with a blue-gray core and an off-white outer layer with three sets of thin blue stripes (see Brain 1979:106).

Figure 5.31. DIVB4 bead. Provenience: Cloy, Prospere Collection.

DIVB4

Sample: 121

Provenience:  
- Cloy 39
- Fatherland 1
- Magnolia I 1
- Play 79
- Wilkie 1

Description: Beads with a blue-gray core and an opaque, white outer layer with three sets of blue spiral stripes (see Brain 1979:107).
DIVB6

**Sample:** 1

**Provenience:** Perkins Creek  1

**Description:** Beads with a gray core and an opaque, white outer layer with three sets of red and blue compound stripes (see Brain 1979:107).

**Wire-Wound Beads**

**Wire-Wound Class I**

Class I wire-wound beads are simple, monochrome beads. Large sizes are common in this class, which includes both round and oval shapes. They are typically made of poor quality glass, so wire-wound marks, streaks, corrosion, and fracture marks are often visible (Brain 1979:107).
Wire-Wound Class I, Type A

These are large, round beads with nearly equal lengths and diameters (Brain 1979:107).

Figure 5.33. WIA1 (top) and WICI (bottom row) beads. Provenience: Cloy, Prospere Collection.

WIA1

Sample: 3

Provenience: Cloy 1

Description: Translucent, very pale blue beads (see Brain 1979:107).

Comments: Larger WIA1 specimens have increased opacity and may appear whiter than the smaller beads. These beads commonly show signs of corrosion and wear. Smith (2002b:59) believed that WIA and WIC beads began appearing in the 1720s, but were most common in the 1730s, making them a relatively late type for Natchez sites.
Figure 5.34. WIA2 bead. Provenience: Magnolia I, Frank Collection.

**WIA2**

*Sample:* 1

*Provenience:* Magnolia I 1

*Description:* Opaque, dark blue beads (see Brain 1979:107).

**Wire-Wound Class I, Type C**

These are large, oval beads that share the same characteristics as Type A, except Type C beads are oval instead of round. Like Type A, these beads were also manufactured with poor quality glass and imperfections are common (Brain 1979:108).

**WICI**

*Sample:* 7

*Provenience:* Cloy 7

*Description:* Translucent, very pale blue beads (see Brain 1979:108).
**Comments:** These are very similar (except in shape) to variety WIA1 beads (Figure 5.33). Like their round counterparts, the oval WIC1 beads exhibit more opacity in larger specimens. Many appear practically white, though a pale blue tinge is visible near the ends of the beads.

![Figure 5.35. WIC(A) bead. Provenience: House Mover, Frank Collection.](image)

**Provisional Variety A of WIC**

**Sample:** 1

**Provenience:** House Mover 1

**Description:** This is a very large, oval, transparent, deep wine-colored red bead. It has a length of 21 mm, a diameter of 13 mm, and a 3 mm perforation.

**Comments:** Many small bubbles are clearly visible inside the glass. One end of the bead has been chipped in multiple places around the perforation.
Wire-Wound Class I, Type D

These beads are small to large and oval-shaped. Like the previous wire-wound types mentioned, these too are often corroded or broken. Size is the main difference between Types C and D (Brain 1979:107).

Provisional Variety A of WID

Sample: 177

Provenience: Cloy 177

Description: These are small, oval, opaque, peacock blue beads. Many chips, cracks, and discolorations are present over the entire surface of each bead. Many specimens have ends that flare outward a bit around the perforation. A typical bead measures 11 mm long, and has a 6 mm diameter, with a 2 mm perforation.

Comments: This variety is a good example of the poor glass quality used to construct Class I wire-wound beads. Brain (1979:107) attributes the abundant imperfections in this class to
high soda content in the glass and damage done during shipping. Prospere notes that the beads of
this proposed variety are especially fragile. They are so delicate that it is nearly impossible to
even clean the dirt out of the center perforation without the risk of breaking the bead into pieces.

*Wire-Wound Class II*

Class II includes monochrome beads of simple construction with elaborate shapes
produced by techniques like pressing and molding (Brain 1979:110).

*Wire-Wound Class II, Type A*

These are faceted beads fashioned by pressing semi-molten glass against flat surfaces or
by grinding down the glass. Many Type A beads have eight pentagonal facets (Brain 1979:110).

Figure 5.37. WIIA2 bead. Provenience: Cloy, Prospere Collection.
WIIA2

Sample: 5

Provenience: Cloy 5

Description: Transparent, clear beads with eight pentagonal facets (see Brain 1979:110).

Wire-Wound Class II, Type B

These are elaborately shaped beads known as “raspberry” and “melon” beads, the surfaces of which have knobs or ridges of glass (Brain 1979:111).

Figure 5.38. WIIB1 bead (bottom, just left of center) on strand with other beads. (The beads were strung by Frank after being individually recovered.) Provenience: Cloy, Frank Collection.
Figure 5.39. WIIB1 bead, showing patina and corrosion. Provenience: Fatherland, Frank Collection.

**WIIB1**

*Sample:* 2

*Provenience:*  
Cloy 1  
Fatherland 1

*Description:* Translucent, dark blue raspberry beads (see Brain 1979:111).

*Comments:* Both specimens from this variety’s sample have brown corrosion marks between the knobs of glass. The bead from Fatherland has also developed white and iridescent patination in these grooves. Patina is a common feature of these beads (Brain 1979:111; Stone 1974:102, Figure 49).

WIIB1 beads are called raspberry beads because their knobby surfaces mimic the appearance of actual raspberries. The term “mulberry” is also used (Stone 1974:101). This style could have been produced by using a two-part mold to shape hot glass or (Kidd and Kidd 1970:50) or by rolling the hot glass across a “sculptured surface” (Brain 1979:111).
Provisional Variety A of WIIB

Sample: 1

Provenience: Cloy 1

Description: This is a large, round, translucent, bright blue bead with eight raised, longitudinal ridges. It is 8 mm long, with a diameter of 10 mm, and a 2 mm perforation.

Comments: Beads of this style are known as “melon” beads due to their ridged surfaces. The variety proposed here is equivalent to Kidd and Kidd’s IIE2, though it is perhaps a bit larger (their variety is defined as medium size) (Kidd and Kidd 1970:58, 74).

Wire-Wound Class III

Class III includes polychrome beads of various shapes that may have inlaid surface decoration (Brain 1979:112).
**Wire-Wound Class III, Type A**

These beads are large and either round or spheroidal, with surface decorations in colors different from the main body of the beads. Brain (1979:112) notes that identifying Type A beads as wire-wound may be difficult because they do not often possess wire-wound marks or air bubbles.

Figure 5.41. WIIIA(A) bead. Provenience: Cloy, Prospere Collection.

**Provisional Variety A of WIIIA**

*Sample:* 7

*Provenience:* Cloy 5

*Description:* These are very large, round, flat-ended, opaque, dark blue (almost black) beads with wavy, irregular, opaque, light blue lines that run around their circumference. The lines may often cross or touch one another. They measure 8 mm long, have a 12 mm diameter, and a 4 mm perforation.
Comments: Beads with this style of wavy line decoration are sometimes called “rattlesnake” beads. While it is clearer in some specimens than others, the design often forms diamond shapes vaguely similar to the pattern on a rattlesnake’s back.

Provisional Variety A of WIIIA has essentially the same style of decoration as WIIIA5 or WIIIA6, but the colors differ (Brain 1979:112-113, Plate IV). While Brain (1979:112-113) classifies these as wire-wound, he does note that Stone considers them to be of drawn construction. The Stone (1974:99) equivalent to Brain’s WIIIA5 is Class I, Series C, Type 3, Variety g.
Altogether, the collections analyzed comprise a sample of 13,883 beads from 20 historic Natchez sites (Table 6.1). Even though 20 sites are represented, the majority of those contributed only one or two beads. In fact, only four sites have sample sizes greater than 20: Cloy \((n = 8,801)\), Fatherland \((n = 147)\), Play \((n = 117)\), and Rice Cemetery \((n = 4,747)\). The large samples from the Cloy and Rice Cemetery sites dominate the dataset and account for just under 98 percent of the total assemblage. The small sample sizes that occur across many of the other sites obviously impose some limitations on analysis. In particular, there is insufficient data to draw any conclusions about the Grigra, Tioux, and White Apple settlement districts. This leaves the Flour, Grand Village, and Jenzenaque districts as the focus of the analyses presented here.

**Diversity of Settlement District Assemblages**

As discussed in the previous chapter, the collections contain 52 separate varieties of beads, including 21 provisional varieties that expand upon Brain’s original typology (Brain 1979). When looking at the varieties present across the sites, it is clear that some sites have more diverse bead assemblages than others. Rice particularly stands out because it contains only eight varieties in a sample of 4,747 beads. However, since sample sizes vary greatly among the sites, it is difficult to accurately assess relative diversity by examining only the raw data. In order to gain a standardized measure of assemblage diversity, the index of dispersion for nominal data is used (VanPool and Leonard 2011:59). Also known as the Gini-Simpson index, the dispersion index
Table 6.1. Bead sample sizes by site.

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<th>Site</th>
<th>Bead Sample Size</th>
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<td>Bug Buster</td>
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<tr>
<td>Cloy</td>
<td>8,801</td>
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<tr>
<td>Elly Smith</td>
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<td>Racket (Quail Run)</td>
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<tr>
<td>Village Sauvage</td>
<td>10</td>
</tr>
<tr>
<td>Wanda Smith</td>
<td>2</td>
</tr>
<tr>
<td>Wilkie</td>
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<tr>
<td><strong>Total</strong></td>
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<td><strong>Grand Village District</strong></td>
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</tr>
<tr>
<td>Play</td>
<td>117</td>
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<tr>
<td>Rosalie Mound and Fort</td>
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<td>Dead Oak</td>
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<td><strong>Total</strong></td>
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<td><strong>Tioux District</strong></td>
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<td>International Paper</td>
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</table>
essentially measures the probability that two independently selected cases will belong to different classes. In this case, it measures the likelihood that two beads from an assemblage will be of two different varieties. The formula is as follows, where \( n_i \) represents the count in each class and \( n \) is the total assemblage size (VanPool and Leonard 2011:59):

\[
\hat{D} = 1 - \sum (n_i / n)^2
\]

The \( \hat{D} \) value returned can range from zero to one, with one indicating maximal dispersion. In this calculation, the most abundant classes will be given more weight than rarer classes, thereby increasing the dispersion index. Rare classes with very few cases, however, will not contribute much to the overall measure of diversity. While this can be a limitation, the index is still useful in the current study because there are several high-proportioned classes—thereby producing an interpretable measure of diversity.

Of the four sites with sample sizes larger than 20 beads, Cloy, Fatherland, and Play have comparable \( \hat{D} \) values (.55, .51, and .51, respectively), but Rice’s is substantially lower at only .08. In order to gain more insight into diversity variation at the settlement district level, site data were aggregated for the Flour, Grand Village, and Jenzenaque districts (Table 6.2). As previously discussed, the Grigra, Tioux, and White Apple districts are not considered because of their very small sample sizes.

<table>
<thead>
<tr>
<th>Settlement District</th>
<th>Sample Size</th>
<th># of Varieties Present</th>
<th>Index of Dispersion (( \hat{D} ))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flour (7 sites)</td>
<td>8,836</td>
<td>45</td>
<td>.55</td>
</tr>
<tr>
<td>Grand Village (6 sites)</td>
<td>291</td>
<td>21</td>
<td>.76</td>
</tr>
<tr>
<td>Jenzenaque (1 site)</td>
<td>4,747</td>
<td>8</td>
<td>.08</td>
</tr>
</tbody>
</table>
Because Rice Cemetery is the only Jenzenaque area site included in this study, the district shares Rice’s .08 $\bar{D}$ value. With 4,747 beads representing only eight varieties, the Jenzenaque district has an expectedly low index of dispersion. The value is also lowered by the fact that 4,549 of the beads from Rice are variety DIIA7. Considering the sample size, one would expect to find much more diversity within the Jenzenaque district. Since the data are limited to a single provenience, however, it is unknown whether this homogeneity is representative of the Jenzenaque district as a whole, or if it is merely a characteristic of the Rice Cemetery site.

The second highest index of dispersion among the three districts evaluated is the Flour district’s $\bar{D}$ value of .55. The Flour district contains 45 different varieties of beads, the most for any district; however, with 8,836 beads, the district also has the largest sample size. This ratio of sample size to number of varieties is part of the reason that the Flour district does not have a higher dispersion index. The overwhelming frequency with which varieties DIIA1 (simple white) and DIIA7 (simple turquoise) occur is also a major factor. Together these two varieties account for just over 90 percent of the Flour district assemblage, thereby lowering the diversity index. It is also important to note that the data from the Flour settlement area are derived from seven separate sites, but the overall assemblage is dominated by 8,801 beads recovered from the Cloy site. This means that the remaining six sites contribute a combined 34 beads and have only a very slight influence on the aggregate data from the Flour district.

Despite having a sample of just 291 beads, the Grand Village district has an index of dispersion that is significantly higher than the Flour and Jenzenaque districts ($\bar{D} = .76$). Twenty-one varieties of beads were found within the relatively small sample, making it the most diverse assemblage when controlling for differences in sample size. Even though the Flour district has 45 varieties, its sample size is over 30 times larger than the Grand Village’s. With 147 beads, the
Fatherland site accounts for just over half of the entire Grand Village district sample. In turn, the Fatherland site also contributes most of the 21 varieties in the district.

**Distribution of Beads by Construction Method**

The collections of Natchez trade beads analyzed consist primarily of drawn beads. Of the 13,883 beads analyzed, only 205 are of wire-wound construction (Table 6.3). Simple drawn beads, that is, monochrome beads with no surface decoration, are by far the most frequently occurring construction method and represent 93.47 percent of the entire sample. Complex, compound, and composite drawn beads are all present at comparable rates, though each accounts for less than 2 percent of the total beads analyzed. Of the wire-wound specimens, simple beads with simple shape are the most common, but they still occur less frequently than any of the drawn types. Simple wire-wound beads with altered shape and complicated wire-wound beads are the rarest type of beads in these collections. Combined they represent only .11 percent of the overall total.

Since simple drawn beads are the most common construction type overall, then it is no surprise that they are also the most frequently occurring type within the Flour, Grand Village, and Jenzenaque settlement districts. When looking at the breakdown of construction method by settlement district, however, some curious patterns emerge. The particularly low assemblage diversity already noted for the Jenzenaque district comes into play in this category as well—all but one of the Jenzenaque area’s 4,746 beads are of simple drawn construction. The single exception is a complex bead (a simple bead with surface decoration). In the case of the more diverse Grand Village assemblage, only 54.64 percent of the beads are simple drawn types. This is a low proportion when compared to the percentages of simple drawn beads in the Jenzenaque
and Flour districts, which are 99.98 and 91.27 percent respectively. Furthermore, the Grand Village assemblage is nearly 31 percent composite beads (compound beads with surface decoration), as compared to only 1.30 percent in the Flour district and zero in the Jenzenaque district.

Table 6.3. Frequency of beads by construction method.

<table>
<thead>
<tr>
<th>Construction Method</th>
<th>Frequency</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drawn</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simple (DIIA)</td>
<td>12,977</td>
<td>93.47</td>
</tr>
<tr>
<td>Complex (DIIB)</td>
<td>225</td>
<td>1.62</td>
</tr>
<tr>
<td>Compound (DIVA)</td>
<td>270</td>
<td>1.94</td>
</tr>
<tr>
<td>Composite (DIVB)</td>
<td>206</td>
<td>1.48</td>
</tr>
<tr>
<td><strong>Drawn Total</strong></td>
<td><strong>13,678</strong></td>
<td><strong>98.52</strong></td>
</tr>
<tr>
<td><strong>Wire-wound</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simple, simple shape (WI)</td>
<td>190</td>
<td>1.37</td>
</tr>
<tr>
<td>Simple, altered shape (WII)</td>
<td>8</td>
<td>.06</td>
</tr>
<tr>
<td>Complicated (WIII)</td>
<td>7</td>
<td>.05</td>
</tr>
<tr>
<td><strong>Wire-wound Total</strong></td>
<td><strong>205</strong></td>
<td><strong>1.48</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13,883</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

These percentages certainly suggest a link between settlement district and bead construction method. To that end, a chi-square test for independence at α level .05 was performed with a null hypothesis that there is no relationship between settlement district and construction method (Table 6.4). Even though differing sample sizes are of concern in this study, the chi-square method relies on proportions and is considered effective in controlling for variations in sample size. In order to maintain the integrity of the chi-square distribution, however, it is generally accepted that no less than 80 percent of cells in the table should have expected values of less than five. Therefore, due to their relative rarity, all wire-wound beads
were considered as a single category. With this measure taken, only three cells had expected values less than five, which meets the 80 percent assumption. The $\chi^2$ value for the table is 2,419.27, which produces a $p$ value of less than .0001. This far surpasses the .05 $\alpha$ level and means that the results are considered statistically extremely significant, leading to a rejection of the null hypothesis that there is no relationship between settlement district and bead construction method. Though the overall $\chi^2$ value of the matrix confirms that the distribution of beads is not likely to be random, it is still important to understand which cells differ significantly from their expected values (at $\alpha = .05$). This provides better insight into which categories of bead construction are contributing to the high $\chi^2$ value and to what degree. The chi-square residual is

### Table 6.4. Chi-square of bead construction method by settlement district.

<table>
<thead>
<tr>
<th></th>
<th>Simple</th>
<th>Complex</th>
<th>Compound</th>
<th>Composite</th>
<th>Wire-wound</th>
<th>Total</th>
<th>Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>8,065</td>
<td>187</td>
<td>267</td>
<td>115</td>
<td>202</td>
<td></td>
<td>8,836</td>
</tr>
<tr>
<td>Expected</td>
<td>8,260.27</td>
<td>143.30</td>
<td>171.96</td>
<td>130.56</td>
<td>129.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grand Village</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>159</td>
<td>37</td>
<td>3</td>
<td>90</td>
<td>2</td>
<td></td>
<td>291</td>
</tr>
<tr>
<td>Expected</td>
<td>272.04</td>
<td>4.72</td>
<td>5.66</td>
<td>4.30</td>
<td>4.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj. Residual</td>
<td>-27.14</td>
<td>15.14</td>
<td>-1.14</td>
<td>42.08</td>
<td>-1.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Jenzenaque</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observed</td>
<td>4,746</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td>4,747</td>
</tr>
<tr>
<td>Expected</td>
<td>4,437.70</td>
<td>76.98</td>
<td>92.38</td>
<td>70.14</td>
<td>69.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj. Residual</td>
<td>22.35</td>
<td>-10.76</td>
<td>-11.97</td>
<td>-10.40</td>
<td>-10.378</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12,970</strong></td>
<td><strong>225</strong></td>
<td><strong>270</strong></td>
<td><strong>205</strong></td>
<td><strong>204</strong></td>
<td></td>
<td><strong>13,874</strong></td>
</tr>
</tbody>
</table>

Note: Adjusted residual values considered significant at $\alpha = .05$ are shown in bold.

$$df = 8 \quad \chi^2 = 2,419.27 \quad p = 0$$
designed to help address this question on a cell-by-cell basis. In essence, the residual is the square root of the $\chi^2$ value, but it can be positive or negative depending on whether the observed values are higher or lower than expected (VanPool and Leonard 2011:246). For the sake of avoiding Type II errors (i.e., false negatives that result in a failure to appropriately reject the null hypothesis) that can occur because of small samples, an adjusted residual value is used. The formula for the adjusted chi-square residual for a given value in the matrix is as follows, where $O$ stands for observed value, $E$ for expected value, and $CT$, $RT$, and $GT$ stand for column total, row total, and grand total, respectively (VanPool and Leonard 2011:246):

$$d_{ij} = \frac{(O_{ij} - E_{ij})/\sqrt{E_{ij}}}{\sqrt{(1 - CT/GT)(1 - RT/GT)}}$$

The adjusted residual values are determined to be significant if they fall outside of the critical $Z$ value range based on the preselected $\alpha$ level. For the .05 $\alpha$ level used here, the critical value is $\pm 1.96$, so any residual greater than 1.96 or less than -1.96 is considered statistically significant. As seen in Table 6.4, the only two cells without significant adjusted residuals are compound and wire-wound beads from the Grand Village district. In both of these categories the actual number of beads is close enough to the expected values that the differences are not considered significant.

The greatest proportional deviation from expected values occurs within the composite bead category for the Grand Village district. If the distribution was random, only about four composite beads would be expected among Grand Village area sites instead of the 90 beads that are actually present. The expected value for complex beads is also exceeded. Conversely, the Grand Village assemblage contains fewer simple beads than expected, accounting for the second most significant residual value in the table.
Like the Grand Village, the Flour district has a lower than expected frequency of simple beads. The same is true for composite beads, but to a lesser extent. On the other hand, complex, compound, and wire-wound beads all occur more than expected. Nearly the opposite is true for the Jenzenaque district, which failed to meet expected counts on every category except simple beads. This was easily anticipated, however, because the Jenzenaque district contains no compound, composite, or wire-wound beads and has only a single complex bead. The fact that the Jenzenaque assemblage consists almost exclusively of simple beads leads to higher simple bead counts than expected.

**Distribution of Beads by Color**

For the purpose of grouping beads by color, the varieties present in the Natchez collections are assigned to one of eight basic color categories: black, blue, clear, green, red, white, yellow, and multicolor. Due to color ambiguities, three WIA1 and seven WIC1 beads were excluded from color analysis (see Chapter 4). Blue is the most common color and accounts for over half of all of the beads analyzed. Of the 7,639 blue beads, 7,314 are variety DIIA7 (simple turquoise, see Figure 5.4), which is the most frequently occurring variety in the collections. White is the second most prevalent color, due mostly to 5,436 variety DIIA1 beads (see Figure 5.1). Blue DIIA7 and white DIIA1 beads together make up nearly 92 percent of the whole sample. Multicolor beads follow blue and white beads in an extremely distant third place. Even though the multicolor category includes nearly all of the beads with surface decoration, it still comprises only around three percent of the collections. The most common multicolor bead is variety DIVB4 ($n = 121$). These beads have a blue-gray core covered in a layer of opaque white glass and are decorated with spiral blue stripes grouped into sets of three (see Figure 5.31). The
second and third most common multicolor beads are DIIB10 \((n = 59)\) and DIVB3 \((n = 53)\), which are also white with sets of three blue stripes, but here the stripes are straight instead of spiral (see Figures 5.13 and 5.30). The remaining color categories (black, clear, green, red, and yellow) combined have only 124 beads and account for less than one percent of the total.

Table 6.5 displays the frequencies of bead colors by settlement district and makes some interesting variations among the assemblages quite apparent. The overwhelming majority of white beads, for instance, come from sites in the Flour district (primarily Cloy). In spite of the Jenzenaque district’s large sample size, it has only 47 white beads. The Jenzenaque area, however, does have the largest sample of blue beads, almost double the amount of blue beads present in the larger Flour district sample.

<table>
<thead>
<tr>
<th>Settlement District</th>
<th>Black</th>
<th>Blue</th>
<th>Clear</th>
<th>Green</th>
<th>Red</th>
<th>White</th>
<th>Yellow</th>
<th>Multicolor</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flour</td>
<td>4</td>
<td>2,951</td>
<td>34</td>
<td>15</td>
<td>3</td>
<td>5,533</td>
<td>2</td>
<td>284</td>
<td>8,826</td>
</tr>
<tr>
<td>Grigra</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>G. Village</td>
<td>1</td>
<td>41</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>117</td>
<td>0</td>
<td>124</td>
<td>291</td>
</tr>
<tr>
<td>Jenzenaque</td>
<td>14</td>
<td>4,644</td>
<td>0</td>
<td>41</td>
<td>0</td>
<td>47</td>
<td>0</td>
<td>1</td>
<td>4,747</td>
</tr>
<tr>
<td>Tioux</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>W. Apple</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19</strong></td>
<td><strong>7,639</strong></td>
<td><strong>37</strong></td>
<td><strong>62</strong></td>
<td><strong>4</strong></td>
<td><strong>5,700</strong></td>
<td><strong>2</strong></td>
<td><strong>410</strong></td>
<td><strong>13,873</strong></td>
</tr>
<tr>
<td>% of Total</td>
<td>.14</td>
<td>55.06</td>
<td>.27</td>
<td>.45</td>
<td>.03</td>
<td>41.09</td>
<td>.01</td>
<td>2.96</td>
<td>100</td>
</tr>
</tbody>
</table>

To test whether this variation is likely to be the result of random distribution, a chi-square test for independence is used (Table 6.6). The Grigra, Tioux, and White Apple districts are excluded from the chi-square because of their exceptionally low sample sizes. Also to that end, the black, clear, green, red, and yellow beads (all of which occur very infrequently) are aggregated into a single category labeled “other.” This helps focus the results on the three
primary categories of bead colors and restricts expected values less than five to a single cell. The
\( \alpha \) level was once again set at .05, with a null hypothesis that there is no relationship between
bead color and settlement district. The chi-square test returns a \( \chi^2 \) value of 6,991.59, which has a
\( p \) value less than .0001. This result is statistically extremely significant and rejects the null
hypothesis, implying that bead colors do vary in a meaningful way among settlement districts.

Table 6.6. Chi-square of colors by settlement district.

<table>
<thead>
<tr>
<th>Settlement District</th>
<th>Blue</th>
<th>White</th>
<th>Multicolor</th>
<th>Other</th>
<th>Total Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8,826</td>
</tr>
<tr>
<td>Observed</td>
<td>2,951</td>
<td>5,533</td>
<td>284</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Expected</td>
<td>4,861.18</td>
<td>3,626.78</td>
<td>260.37</td>
<td>77.67</td>
<td></td>
</tr>
<tr>
<td>Adj. residual</td>
<td><strong>-67.81</strong></td>
<td><strong>68.41</strong></td>
<td><strong>2.47</strong></td>
<td><strong>-3.72</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Grand Village</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>291</td>
</tr>
<tr>
<td>Observed</td>
<td>41</td>
<td>117</td>
<td>124</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Expected</td>
<td>160.28</td>
<td>119.58</td>
<td>8.58</td>
<td>2.56</td>
<td></td>
</tr>
<tr>
<td>Adj. residual</td>
<td><strong>-14.21</strong></td>
<td>-.31</td>
<td><strong>40.41</strong></td>
<td><strong>4.08</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Jenzenaque</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4,747</td>
</tr>
<tr>
<td>Observed</td>
<td>4,644</td>
<td>47</td>
<td>1</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Expected</td>
<td>2,614.55</td>
<td>1,950.64</td>
<td>140.04</td>
<td>41.77</td>
<td></td>
</tr>
<tr>
<td>Adj. residual</td>
<td><strong>73.02</strong></td>
<td><strong>-69.25</strong></td>
<td><strong>-14.71</strong></td>
<td><strong>2.53</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total Observed</strong></td>
<td>7,636</td>
<td>5,697</td>
<td>409</td>
<td>122</td>
<td>13,864</td>
</tr>
</tbody>
</table>

Note: Adjusted residual values considered significant at \( \alpha = .05 \) are shown in bold.

\[ df = 6 \quad \chi^2 = 6,991.59 \quad p = 0 \]

Based on the adjusted chi-square residuals, the difference between observed and expected
values are significant for nearly all cells. The single exception is the white bead category from
the Grand Village district, where the observed value adheres closely to what was expected. The
adjusted residuals most outside of the \( \pm 1.96 \) critical value range are blue and white beads from
the Jenzenaque district. If bead colors were independent of settlement districts, then the expected
number of blue beads in the Jenzenaque district would be about 2,615. In actuality, 4,644 blue beads were recovered, which is greatly disproportionate to the 47 white beads found. With no relationship between color and settlement district, one would have expected around 1,951 white beads to be found.

Flour district sites also produce observed values that depart significantly from what is to be expected. As with the Jenzenaque district, the largest discrepancies occur in the blue and white bead categories. Flour sites contain only 2,951 blue beads, falling very short of the 4,861 expected value. The opposite was true of white beads, though. Whereas only about 3,627 white beads are expected, 5,533 are actually present in the collection. To summarize, the Jenzenaque district has far more blue beads than expected, but significantly fewer white beads. The reverse situation occurs in the Flour district—there are fewer blue beads than expected and a higher number of white beads.

For the Grand Village district, the most significant difference between observed and expected values is present in the multicolor bead category. Within the entire collection, multicolor beads occur much less frequently than blue and white beads. Since only 291 beads in the collection originate from Grand Village district sites, the expected count for multicolor beads in the Grand Village district is less than 9. Surprisingly, 124 multicolor beads are found. In contrast, only 1 multicolor bead is contained in the 4,747 total beads from the Jenzenaque area, though the expected number is 140.

**Discussion**

The goal of these analyses is to explore variation among the bead assemblages of the Natchez Indians and to assess whether settlement district differences can be discerned through
the archaeological record via glass trade beads. Building upon research presented in Brown 1985, one main hypothesis is that bead assemblages will vary between Natchez settlement districts on the basis of ethnicity—that is to say that native Natchezan districts (Flour, Grand Village, and White Apple) would have beads that differ from those of non-native, immigrant districts (Grigra and Tioux). The differences are expected to be evidenced primarily through bead color, perhaps revealing group-specific color preferences. These preferences, or styles, could be the result of a conscious effort to reinforce or delineate group identity, or the product of differing tastes, fashions, and aesthetics.

Archaeologists have developed a number of theories on the topic of style, including what constitutes style and how stylistic variations among artifacts may reflect social identities of the past. Of particular relevance here is Sackett’s isochrestic model of style (Sackett 2009:33-35). Beyond mere functional considerations, a number of “equally viable” stylistic options are available when using or manufacturing a material item, all of which will achieve essentially the same end—this is known as isochrestic variation (Sackett 2009:33). Style, then, is represented by the specific selection of one or more of the options available. According to Sackett (2009:33), isochrestic style is learned and absorbed from the social contexts in which a person exists, thereby creating socially bounded patterns of stylistic variation, which can be indicative of ethnic differences. Isochrestic style is the result of members of a society conforming to their group’s traditions and conventions on style, so it therefore produces a passive and unconscious style (Sackett 2009:35-36). While these isochrestic styles may signify an association with a particular ethnic group, they are not deliberately intended for use as ethnic markers. Iconological style, on the other hand, is an active form of style created to identify and maintain social boundaries (Sackett 2009:36).
Despite the potential for ethnic differences to be revealed in stylistic variations, the sample sizes from the immigrant Grigra and Tioux districts are inadequate to make any meaningful comparisons to native district assemblages. In the collections studied, only six beads are from the Grigra district and only two from the Tioux district. Obviously no conclusions on color preference can be made with these data. The paucity of beads from these immigrant districts is not altogether surprising, though. The Grigra beads analyzed for this project originate from four sites: Antioch, Dead Oak, Perkins Creek, and Trinity. It is known from previous archaeological investigations that the Antioch and Dead Oak sites have very early historic period occupations dating to the late seventeenth century when European trade goods were not yet widely available (Brown 1985:188). Lower Mississippi Survey excavations at Antioch produced plenty of aboriginal artifacts, but only a small handful of historic European trade goods, including a single variety DIIB2 bead (Brown 1985:234-244). Interestingly, however, 12 small oval clay beads that seem to have been fashioned after their European glass counterparts were discovered (Brown 1985:132, Figure 81), suggesting that Antioch inhabitants resorted to making their own clay copies of beads, perhaps because they had trouble obtaining glass beads in substantial quantities (Brown 1985:147).

Despite lacking sufficient data to draw conclusions about bead color preference as it relates to ethnicity, there is still strong evidence to support the idea that color differences exist among settlement district bead assemblages. The extremely high $\chi^2$ value of the data in Table 6.6 clearly suggests that the connection between settlement districts and bead colors is real, and not just the result of random distribution. Nearly every cell is shown to have varied significantly from the expected values. The greatest differences occur within the blue and white bead categories in the Jenzenaque and Flour districts. The Jenzenaque district contains almost
exclusively blue beads, but lacks any substantial quantity of white beads. The Flour district, on the other hand, has more white beads than expected, but falls far short of the expected value for blue beads. To a lesser extent, the same is true of the Grand Village area. In terms of color preference, it appears that a strong preference for blue beads exists within the Jenzenaque district, while a greater emphasis is placed on white beads in the Flour district. The Jenzenaque and Flour districts are both believed to have been inhabited by native Natchezans, so it does not seem as if this color preference is linked to ethnicity. Rather, it may be related to divergent political alliances and the trade relationships that they formed. The people of the Jenzenaque district, along with the Grigra and White Apple districts, were generally pro-English, while the Flour, Grand Village, and Tioux districts were French allies (Swanton 1998:47).

If one is to assume that a settlement district’s political association did influence bead colors, then the question becomes why? Two main possibilities exist. First, the disparate frequencies of bead colors among settlement districts are a consequence of the different inventories of French and English traders. For example, if English merchants offered primarily blue beads, then the areas trading with the English (e.g., the Jenzenaque district) could have higher proportions of blue beads. The second possibility is that the Natchez who were allied with the English were actively choosing different beads than those who were allied with the French (or vice versa). Again, these choices might have been active attempts at group differentiation, or perhaps a product of something more passive or subconscious.

Considering the evidence at hand, the “differential availability” explanation of why the settlement districts had different colors of beads seems unlikely. While inventory may have differed a bit between French and English traders, it is improbable that their supplies of beads would have varied so much as to produce the large color differences present in the collections.
studied here. After all, the beads in question are basic blue and white varieties (mostly DIIA1 and DIIA7) that are nearly ubiquitous on historic sites from this time period and region. These beads are so common that it is doubtful that French or English traders would have had trouble obtaining them. Furthermore, traders of different nationalities often obtained beads from the same manufacturers and suppliers in Europe (Bradley 1983:37; Sprague 1985:101; Trivellato 1998:65), so it would seem that traders contemporary with one another would have had comparable access to specific varieties.

Given the fierce economic and political competition between the French and English in the Natchez region, both sides would have had a vested interested in supplying desirable trade goods. As already demonstrated, there is no shortage of historical documents to attest to the fact that Native customers exercised preference and choice in their dealings with colonial merchants. Even though European trade goods, especially glass beads, were highly desired objects in many Native communities, one would be amiss to envision Indians as indiscriminate or powerless consumers who readily accepted anything that was made available to them. In fact, European traders sometimes had to send unwanted goods back to their suppliers because they were unable to sell them to Indians (McDowell 1955:212; Ray 1978:258, 264; Stern 2012:5, 20). To avoid being saddled with wares Indians refused to buy, traders made special efforts to obtain the right types and styles of trade goods, including beads (Hawes 1959:48-49; Kenyon and Kenyon 1983:70; Stern 2012:3). English merchants would even go so far as to send samples of beads back to England, so that their suppliers could provide them with exactly what was in high demand among the Indian communities they were trading with (McDowell 1955:212; McDowell 1970:580; Ray 1978:258). Ultimately, it is in a trader’s best economic interest to stock merchandise that satisfies the needs and tastes of his customers. Evidence for specific Indian
preferences paired with the fact that traders went to special lengths to ensure a suitable supply of trade goods suggests that neither the Natchez nor the European traders would have been overly tolerant of an inventory that lacked the desired color of beads. For example, if the Natchez living in the Jenzenaque district wanted white beads but could not obtain them from the English traders they usually did business with, then they could have gone to the French merchants supplying the Flour and Grand Village districts, or even traded with other Indians to get the white beads. Even informal trade between colonial settlers and Indians was not uncommon (Usner 1992:27-28, 1995:559-561). In the collections studied, however, there are only 47 white beads recovered from the Jenzenaque district. Considering that the samples for the Flour and Grand Village districts contain 5,650 white beads, it hardly seems that there was a lack of access to white beads.

In light of the above evidence, the uneven distribution of blue and white beads among settlement districts implies that the pro-English and pro-French factions of the Natchez had different color preferences for glass beads. This could have been a purposeful decision and an attempt to stand apart from one another. It is difficult to say how Natchez commoners felt about the political divisions of the chiefdom, but there are historical documents that reveal contention among the ruling class, especially in regard to European political alignments. Even though the Great Sun was a friend of the French, his political authority was not great enough to curtail the anti-French sentiment of the chiefs leading the Jenzenaque, White Apple, and Grigra settlement districts. As detailed in Chapter 2, there were incidents involving the French that turned the pro-French and pro-English Natchez settlement districts against one another. The deep divisions between the opposing factions became apparent during the First Natchez War (1716), when the Great Sun and his brothers made clear to the French that their loyalties lay with them and not the pro-English districts. Eight chiefs from the Flour, Grand Village, Grigra, Jenzenaque, and White
Apple districts had been captured by Bienville in response to the murder of some French traders. After being imprisoned for some time, the Great Sun, the Tattooed Serpent, and the Little Sun admitted the following to Bienville:

...three war chiefs of the villages of the Walnuts [Jenzenaque], of White Earth [White Apple], and the Grigras were the sole authors of the disorders which had taken place in their nation; that it was these three chiefs that had brought the English into their village; that it was at their order that the Frenchmen had been killed; ...that these chiefs for a year back had assumed so much authority in their nation that they were more feared and obeyed than themselves (De Richebourg in Swanton 1998:202).

In the end, all but the “enemy” chiefs mentioned above were allowed to go free with an agreement that they would help atone for the French losses. The Jenzenaque chief known as The Bearded and the Grigra chief named Alahofléchia remained in Bienville’s custody and were later executed for their crimes against the French. The Tattooed Serpent was present at the executions and, referring to The Bearded, is purported to have said: “He is my brother, but I do not regret him. You are ridding us of a bad man.” (De Richebourg in Swanton 1998:204). The Bearded was actually the maternal uncle of Tattooed Serpent and the other Sun brothers—a familial relationship that was held in high esteem in matrilineal societies like the Natchez (Barnett 2007:65). Thus, for the Tattooed Serpent and his brothers to speak out against The Bearded and Alahofléchia (even under coercive circumstances) was not only an action against fellow chiefs, but also against a close family member. It should also be remembered that Bienville made the Tattooed Serpent kill Old Hair in order to broker a peace between the French and the Natchez. Old Hair, the chief of the White Apple district, was a member of the Sun lineage himself, which made the execution that much more significant.

These episodes make apparent just how divisive European alliances could be within the Natchez chiefdom. Though at times the pro-English and pro-French Natchez chiefs cooperated,
there is no doubt that the political factions ran deep and that the chiefdom was often politically disjointed. It is not clear how, or if, these political differences might have related to Natchez material culture, but chiefs and their associated districts could have had motivation for distinguishing themselves from an opposing faction. To be clear, the Natchez chiefdom was not in an outright civil war, but economic and political competition did, from time to time, pit Natchez factions against one another.

In addition to unequal numbers of blue and white beads between the pro-English and pro-French districts, analysis also revealed that the Grand Village district has proportionately greater numbers of decorated beads as compared to the Flour and Jenzenaque districts. To summarize the results from a previous section, complex (type DIIB) and composite (DIVB) beads make up 43.64 percent of the Grand Village sample, but only 3.42 percent of the Flour sample, and only .02 percent of the Jenzenaque sample. The higher frequencies of decorated beads in the Grand Village district may be related to the Fatherland site’s location within the district. Archaeological investigations and corroborating historical documents determined the Fatherland site to have been the location of the Grand Village of the Natchez (Neitzel 1997). The Grand Village was the main ceremonial mound center for the Natchez and the residence of The Great Sun, principal Natchez chief and member of the hereditary ruling class (Swanton 1998:100-108, 158-181). In much the same way that ceremonial centers often contain higher quantities of prestige goods and ceremonial wares, it is possible that the Fatherland site has more of these beads because they are “fancier” and scarcer than the common simple monochrome beads that dominate assemblages within other districts. Since gift-giving was an important act of diplomacy and friendship between the French and Indians (Usner 1995:557), it is even possible that these “special” beads were gifted to some Natchez elites. Fatherland probably also had more direct contact with the
French than other areas, not only because of its political importance, but because of its location near the Mississippi River, which was a convenient way station for French *voyageurs* (Swanton 1998:192). Additionally, the site was close to the Natchez trading post established in 1713 by the La Loire brothers on behalf of French merchant Antoine Crozat (Barnett 2007:58; Giraud 1974:305; Swanton 1998:192) and Fort Rosalie, constructed a few years later (Giraud 1974:350; Swanton 1998:204).
CHAPTER 7

CONCLUSION

Analysis of bead assemblages from historic Natchez Indian settlement districts revealed unequal distributions of beads on the basis of construction method, color, and overall diversity. Adequate sample sizes were limited to the Flour, Grand Village, and Jenzenaque districts. For that reason, it was not possible to evaluate the hypothesis that bead assemblages would vary between native Natchezan settlement districts (Flour, Grand Village, Jenzenaque, White Apple) and those districts with immigrant populations (Grigra and Tioux). It was originally reasoned that these ethnically distinct groups might have different preferences for beads, but no conclusions can be reached until more data are available on glass beads from the Grigra and Tioux districts.

The hypothesis that beads would vary between the pro-French and pro-English political factions was supported by a chi-square test for independence that compared bead colors across the Flour, Grand Village, and Jenzenaque districts. The results were statistically significant, and produced an extremely low probability ($p < .0001$) that this distribution was the result of chance. The most pronounced inequalities in bead color distribution existed between the Flour and Jenzenaque districts. The Flour district, known to be allied with the French, had a higher-than-expected number of white beads, but fewer blue beads. The pro-English Jenzenaque district, however, had an overwhelming majority of blue beads that far surpassed what would be expected in a random distribution. Conversely, white beads were nearly absent in the Jenzenaque...
area. The Flour and Jenzenaque districts are comparable in time and geographic location, and, for reasons outlined in Chapter 6, they are believed to have had roughly equal access to glass beads. As such, the occurrence of blue beads over white, or vice versa, may be a reflection of group preference for particular bead colors. Whether these color preferences were the result of a conscious effort at group delineation or perhaps just an expression of style or taste is unknown. However, the division between the opposing political factions was serious and could have been a motivating factor in distinguishing group membership through material culture.

It is interesting to note that a red-white war-peace dichotomy is documented to have existed among the Natchez (Galloway and Jackson 2004:605). Red represented war and the war chief, the Tattooed Serpent. White, on the other hand, was the color of peace and was associated with the peace chief, the Great Sun. Le Page du Pratz (1763:II:235) reported that the chiefs wore a crown of white feathers attached to a red diadem embroidered with white “kernel-stones.” Thus, white had an association with chiefly power and authority and was directly linked to the Great Sun. This study has shown that white beads in the Flour and Grand Village districts vastly outnumber those in the Jenzenaque district. Interestingly, the Flour and Grand Village districts remained united under the authority of the Great Sun, who was a staunch ally of the French. The Jenzenaque chief, however, is known to have been considered an enemy of the French, thereby politically separating himself from the Great Sun. While it cannot be empirically substantiated, it is intriguing to consider the possibility that white beads were consciously used in the Flour and Grand Village districts as a way of signifying or reinforcing the power of the Great Sun.

As is often the nature with archaeological research, the data used in this study have limitations. All of the beads considered here were the result of surface collections, sometimes turning up after major site disturbances such as logging activities. Therefore, provenience can
only be determined at the site level. Most of the beads are from the Cloy and Rice sites, which are known to contain cemeteries, so it is likely that many of the beads are from disturbed burial contexts. This in itself poses some concerns, because the beads included in burials may not be an accurate representation of the beads used during life. Furthermore, thousands of beads could be included in a single burial. Without depositional context it is impossible to know if the beads in any given assemblage reflect just one burial, the site as a whole, or something in between.

Still, the classification of these collections adds a wealth of data to what is already known of glass beads from Natchez sites. Despite the limitations mentioned above, the data analyzed here demonstrate that significant variations exist among settlement district bead assemblages. Further research will be needed to help expand our knowledge of beads in all the settlement districts, but the Grigra, Tioux, and White Apple districts in particular. The collections analyzed in this study lacked adequate amounts of data for these areas. If future work also fails to produce many beads from these districts, then it might be the case that they lacked the large quantities of beads that are found elsewhere among the Natchez. This will be an important distinction to make and will obviously have implications that affect our understanding of Natchez economy and trade.
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### APPENDIX

#### RAW COUNTS OF BEAD VARIETIES BY SITE

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