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Further investigations into the King George Island Mounds site (16LV22)

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FURTHER INVESTIGATIONS INTO THE KING GEORGE ISLAND MOUNDS SITE (16LV22)

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Research at the King George Island Mounds site (16LV22) consisted of shovel testing the island on which the site is located and placing test units in two recently discovered mounds in Area B on the south side of the site (Mounds F and G). The shovel test pits were placed on the western half of the island in an attempt to locate habitational features related to the earthworks on the eastern half of the island. All shovel tests done on King George Island during this investigation were negative showing no signs of occupation near the site proper. Units were placed in Mounds F and G in order to determine their age and ultimately their relationship (if any) to the rest of the earthworks. The presence of an argillic horizon in Mounds F and G comparable in depth to the ones in Mounds A and B done by Vasbinder (2005) suggest a similar age in construction, thereby indicating a direct relation between Areas A and B of the King George Island Mounds site.

CHAPTER 1
INTRODUCTION

The King George Island Mounds site (16LV22) is a Middle to Late Archaic mound complex located just outside the city limits of French Settlement, Louisiana, within the swampland of southern Livingston Parish. The King George Island Mounds site is about one kilometer north of King George Bayou, which connects two sections of the Amite River (Figure 1-1). The Amite River drains into Lake Maurepas, which accounts for its importance as a corridor for travel and trade from historical times back to antiquity. The site is located on a Pleistocene terrace remnant, which is now surrounded by swamp because of subsidence and rising sea levels. Because logging canals were dug near the site in the early twentieth century when cypress was being harvested from the area, the site can only be reached by boat. The King George Mounds site is one of several possible Archaic period mound sites that have been identified along the Lower Amite River (Figure 1-1).

Since research by Rebecca Saunders of Louisiana State University and her graduate students began in April of 2003, the number of earthen mounds at the King George Island Mounds site has been expanded from two to six mounds. A possible seventh and eighth earthen mound may also be present. Four of the mounds (Mounds A, B, C, and D) are connected by an artificial ridge (Figure 1-2). Four of the six mounds (Mounds A, B, F, and G) on the site are ca. two meters or higher; the two largest mounds (Mounds B and F) are ca. 3.5 meters high. Two of the most recently identified mounds (Mounds F and G) are also two of the larger mounds. They are on a separate landform about 200 meters south of Mound B. The possible seventh mound (Mound E) lies on the south side of Mound D and the ridge. It was first noticed on a contour map done of the site and is barely noticeable when one is standing on it. It is still questionable whether it is a mound or just a natural rise perhaps developed from erosion of the ridge.

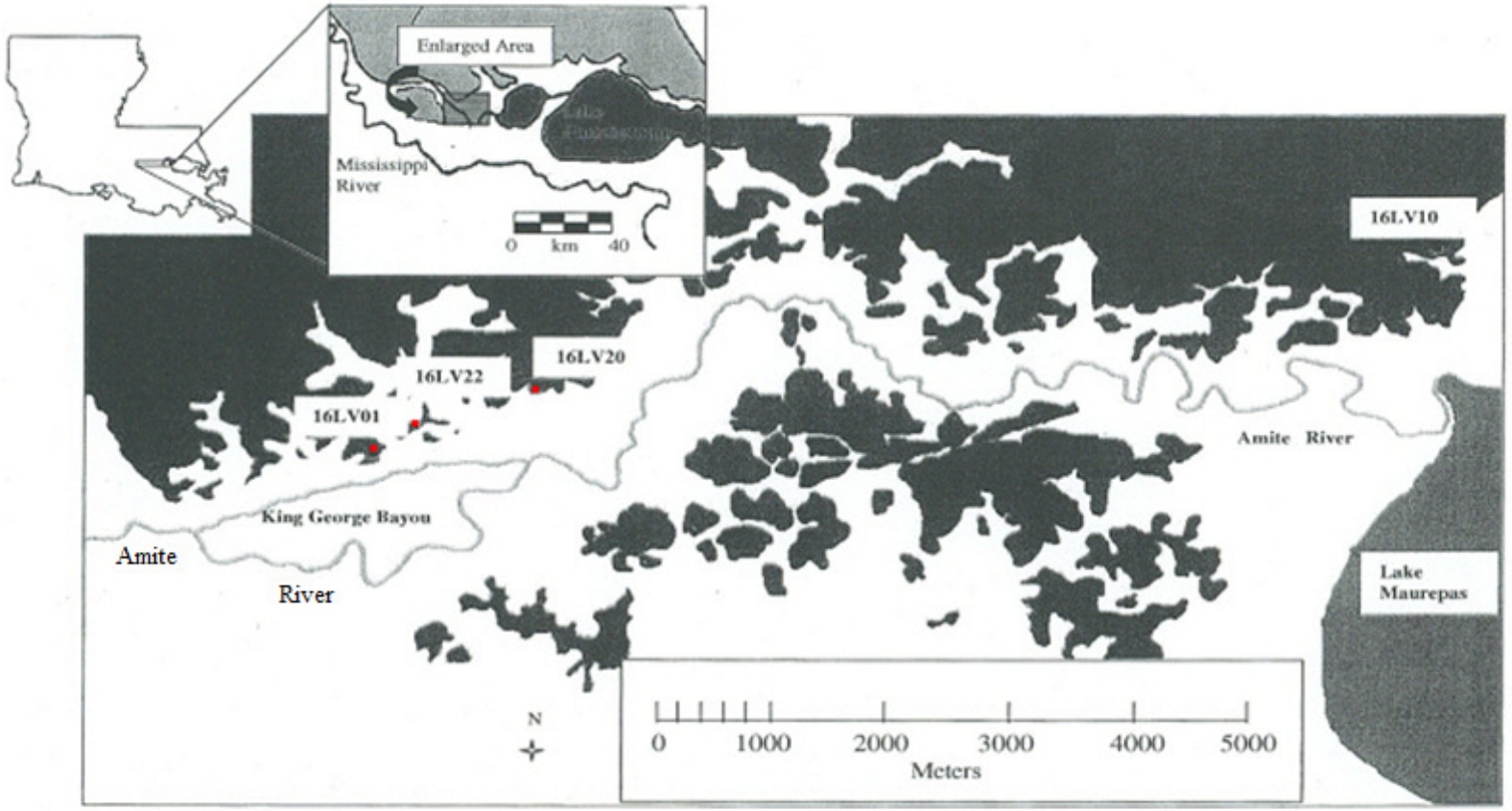


Figure 1-1. Location of the King George Island Mounds site (16LV22) and other possible Archaic mound sites along the Lower Amite River (Vasbinder 2005: Figure 1-1). Reproduced by permission of author.

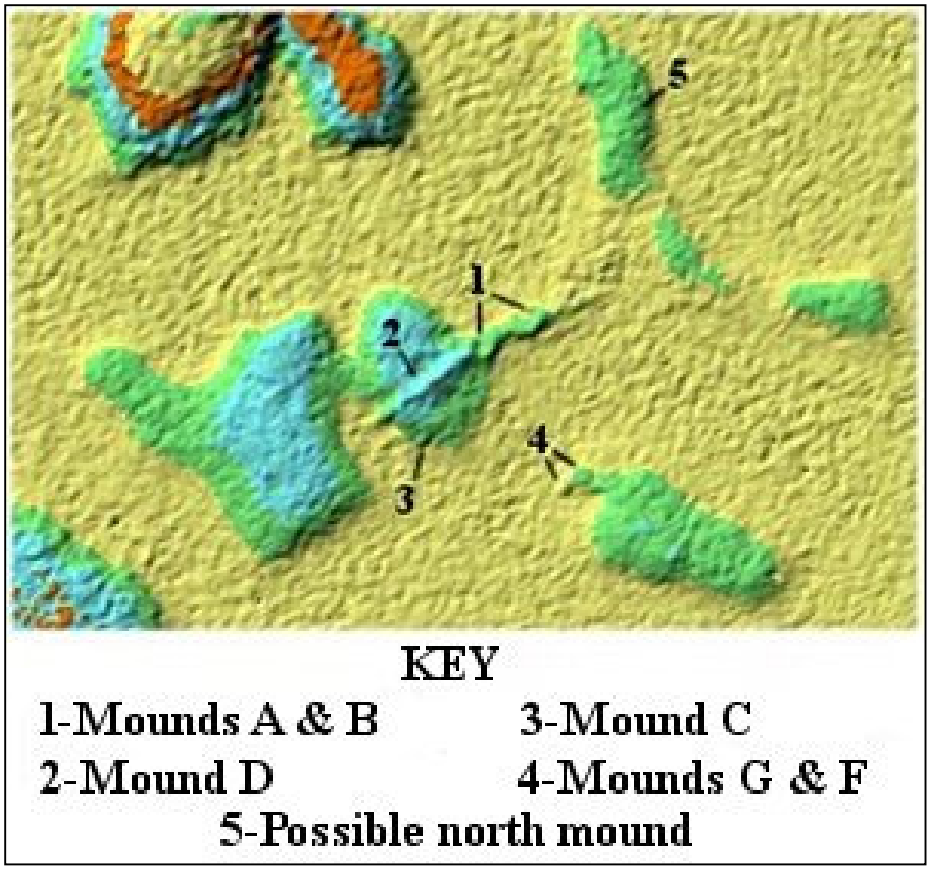


Figure 1-2. Lidar Imagery of the King George Island Mounds site at 2.5ft contour intervals.

Mound E was not detected in the Lidar imaging. The possible eighth mound is about 355 meters north of Mound B and does seem to be visible by Lidar imagery. It is pointed out in Figure 1-2.

The King George Island mounds provide an opportunity for determining mound function during the Archaic period, and for testing theories about how labor was organized and about sociocultural complexity among hunter-gatherer populations. The focus of my thesis research was the function of the mounds. During the Woodland and Mississippi periods, mounds were used as burial mounds, house mounds, or as substructures for important buildings. Because of the absence of structural features or burials in most Archaic mounds, they may have served a different function than the later mounds. The prominent theories for the role of Archaic mounds in Archaic society suggest they were used as ceremonial and trade centers (Russo 1994). There are other possibilities, such as territorial markers (Milner 2004) or for use as high ground (White

2004).

At present, it does not appear that the King George Island Mounds site was an occupational site, though preservation is poor and excavation very limited. For this project, investigation of the rest of the Pleistocene terrace remnant was undertaken to determine whether an Archaic village site associated with the mounds was present. This information may help in discovering the purpose of the site. The presence of a village midden or other occupational features adjacent to the mounds might indicate a sedentary or semi-sedentary condition of the population utilizing the King George Island mounds. The data recovered during these excavations may have broad implications for the way labor was organized for mound construction and how the site functioned within the broader community.

I designed a program of shovel testing at 50 meter intervals on the western half of the King George Island. This was done in order to locate any habitational features related to the earthworks. The grid was set at 50 meters in order to get the most coverage within the times restraints of finishing the thesis in a timely manner. In addition to the shovel testing, a 1 x 2 meter test unit was placed in each of the two recently discovered mounds located to the south of the original King George Island Mounds site, to determine whether they were related to the mounds on the terrace remnant to the north. A topographic map of the two new mounds to the south was created and combined with a previous topographic map of the site (Mann 2005) to show the full extent of the King George Island Mounds site, as it is currently defined.

In Chapter 2 of this thesis I discuss research done on other Middle and Late Archaic mound sites to help interpret the use of the King George Island Mounds site. In Chapter 3, I present the physical environment of the site. In order to provide a cultural context within which the site existed, a complete culture history of south Louisiana and the rest of the southeastern United States is furnished in Chapter 4. In Chapter 5, I will discuss the previous research on the

site. Field methods, excavation results and an analysis of the artifacts recovered from the excavations are reported in Chapters 6 and 7. The information collected, both in background research and in the field, will be discussed, and conclusions presented in Chapter 8.

CHAPTER 2
PHYSICAL SETTING

The King George Island Mounds site is located in southeast Louisiana in Livingston Parish. The site rests on King George Island east of the town of French Settlement and north of King George Bayou (Figure 3-1). The bayou flows east into the Amite River, which in turn flows into Lake Maurepas. King George Island is a Pleistocene Prairie Terrace remnant that is surrounded by swamp, with a logging canal running north/south down the western edge and another possible one east/west along the south side of the island. The deep water on the south side of the island maybe a logging canal or an old drainage; it separates King George Island from the smaller terrace remnant where the two recently discovered mounds are located (Mounds F and G).

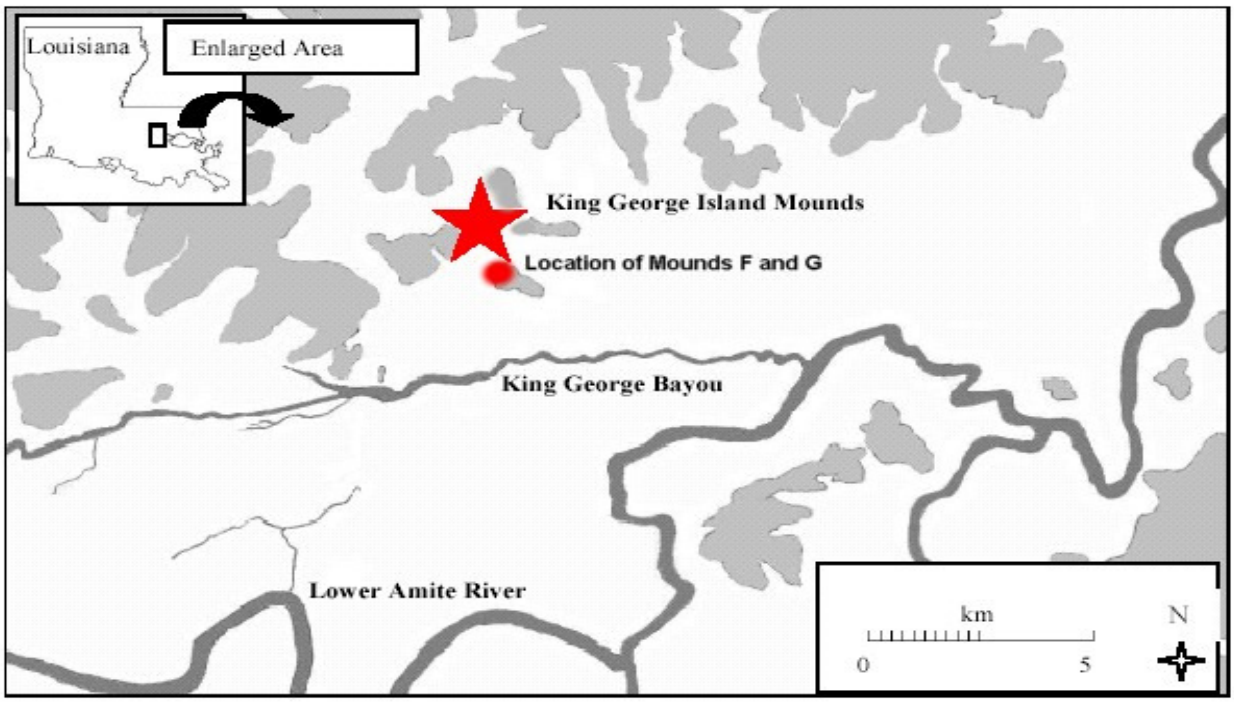


Figure 3-1. Location of King George Island Mounds site (16LV22) and Mounds F & G (basemap from Vasbinder 2005: Figure 3-1). Used by permission of author.

These terrace remnants are the highest peaks of the eroding edge of the Pleistocene Terrace surface that have become surrounded by swamp due to subsidence, faulting, and rising sea levels (Saucier 1963:12,17; Gagliano et al 2003:15). The combination of these processes has resulted in an average subsidence rate of 0.11 m per century over the past 4400 years (Saucier 1963:13). The swamp has a present surface elevation of one foot or less above mean sea level, the Pleistocene Prairie Terrace maximum elevation is two to three feet higher (Saucier 1963:21). Saucier (1994:178-179) refers to the near-surface section of the Prairie Complex where terrace remnants are incorporated into swampland as "Undifferentiated Coastal Plain." The Louisiana Geological Survey describes the terrace sediment as light gray to light brown clay, silt, and sand with some gravel (Jones and Shuman 1988:5). The swampland sediments are gray to brownish clay and silty alluvial clays and are found around Lake Maurepas and along the western portion of Lake Pontchartrain (Jones and Shuman 1988:5). All soils in the area are "relatively high in organic and water content" (Saucier 1963:5). According to the Soil Survey for Livingston Parish, this area contains Colyell-Springfield soils with Barbary Muck soils in the swamp areas. Slight variations between Colyell and Springfield soils are due to fluctuations in the water table.

GEOLOGICAL CHANGE THROUGH TIME

The environmental changes during the Early to Middle Holocene created the landscape of southeastern Louisiana. Between 18,000 and 20,000 B.P., sea level was 390 feet lower than its present level due to continental glaciation. The shoreline extended to near the outer margin of the continental shelf.

> "About 18,000 years ago, sea level began to rise in response to glacial melting and (the) return of glacial melt waters to the sea. Streams began alluviating their entrenched valleys in an attempt to adjust to rising sea level, while depositing sandy deltas at their mouths. As the rate of rise increased, deposition could no longer keep pace. Estuarine and marine conditions replaced continental sedimentation as the sea transgressed up entrenched stream valleys and across the oxidized Prairie surface" (Morgan 1977:34).

During this time, the climate was colder and much wetter than at present and evergreen conifers dominated the landscape (Saucier 1994:242-245). Around 12,000 B.P., the glacial runoff through the Lower Mississippi Valley area peaked, followed by a rapid decline leading to significantly warmer and drier climate (Saucier 1994:244-246). The boreal forest was replaced by mixed deciduous hardwood forests in the uplands and cypress-gum swamps in the lowlands (Saucier 1994:246). Sea level had risen to 140 feet below present and continued to rise at several feet per century (Saucier 1994:248). Most researchers agree that by about 4000 B.P., sea level rose to within 10 feet of its present level (Saucier 1994:50); some geologists believe that sea level exceeded its present level around 4500 to 6000 years ago (Saucier 1994:50; Saucier 1963:59). In the absence of any barriers (Mississippi deltas were all to the west of Lake Pontchartrain prior to this time), the Gulf of Mexico penetrated as far as the northern edge of the Pontchartrain Basin (Figure 3-2). This occurred sometime between 4800 to 5000 years ago and is referred to as the Pontchartrain Embayment (Saucier 1963:46). Figure 3-2 shows the route of the Amite River during this period.

By 4000 B.P., the Lower Mississippi Valley returned to a cooler and wetter climate similar to present weather conditions (Saucier 1994:46). With the new climate, pines again replaced the mixed hardwood forest (Delcourt et al. 1980:383). Around 3500 to 4000 years ago, the Pontchartrain Basin was separated from the Gulf on the south end by the St. Bernard delta. This brought an end to the marine conditions along the terrace edge (Saucier 1963:59; Otvos 1978). At this time, the Amite River flowed eastward through swamp and marsh, where present day Lake Maurepas lies, into Lake Pontchartrain (Saucier 1963:59). The Pontchartrain Basin became the control for the water level of the Amite River during this period (Autin 1993:71). Figure 3-3 shows the development of the Basin area during this time period. As Lake Pontchartrain and then Lake Maurepas formed, the Amite River's course became shortened

(Figure 3-4). By 2000 B.P., the Amite River moved south, flowing into Lake Maurepas just north of the present Blind River (Figure 3-5). The Lower Amite River returned to its old channel (its present course) around 1400 to 1800 years ago (Figure 3-6).

The development of the western end of the Pontchartrain Basin holds one of the keys to determining a date of construction for the King George Island Mounds site. As time progressed, rivers and rising sea level cut into the Pleistocene terrace edge, which, along with subsidence, created the remnant islands now common in the area. An obvious change can be seen between Figures 3-2 and 3-3. The terrace edge where the King George Island Mounds site is located is divided and an island is formed. If this terrace edge is the beginning of the present island on which the site lies today, than it can be argued that the site was constructed prior to this geological change. Assuming that the site was not intentionally built on an island, its construction had to be completed before 4800 B.P. when the river was running through King George Bayou close to the site.

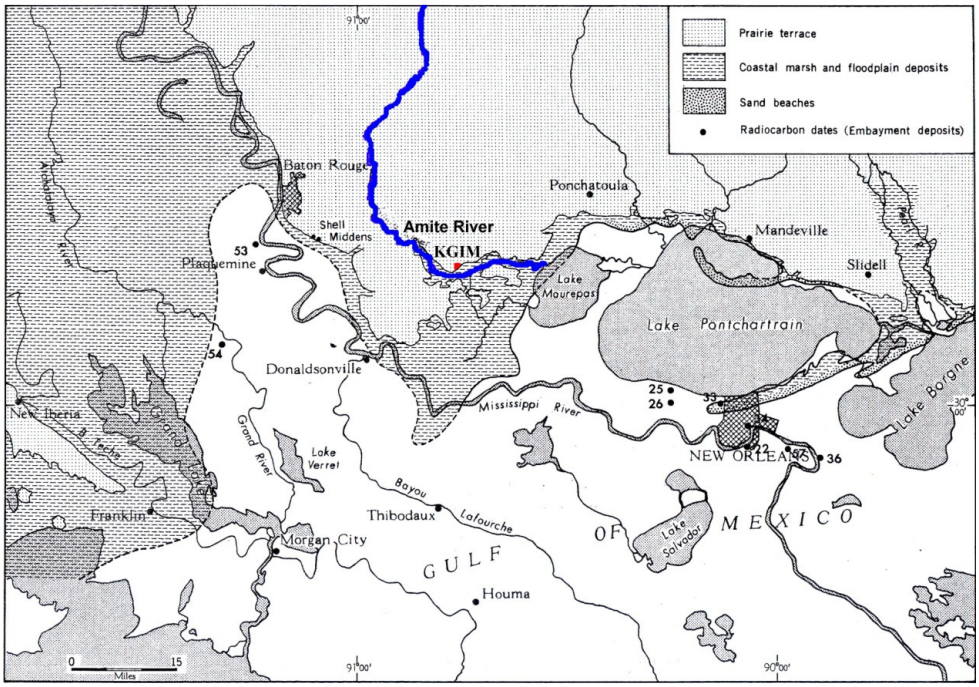


Figure 3-2. Shoreline and route of the Amite River during Pontchartrain Embayment (4800-5000 B.P.). (reproduced from Saucier 1963: Figure 15, Lower Amite River enhanced).

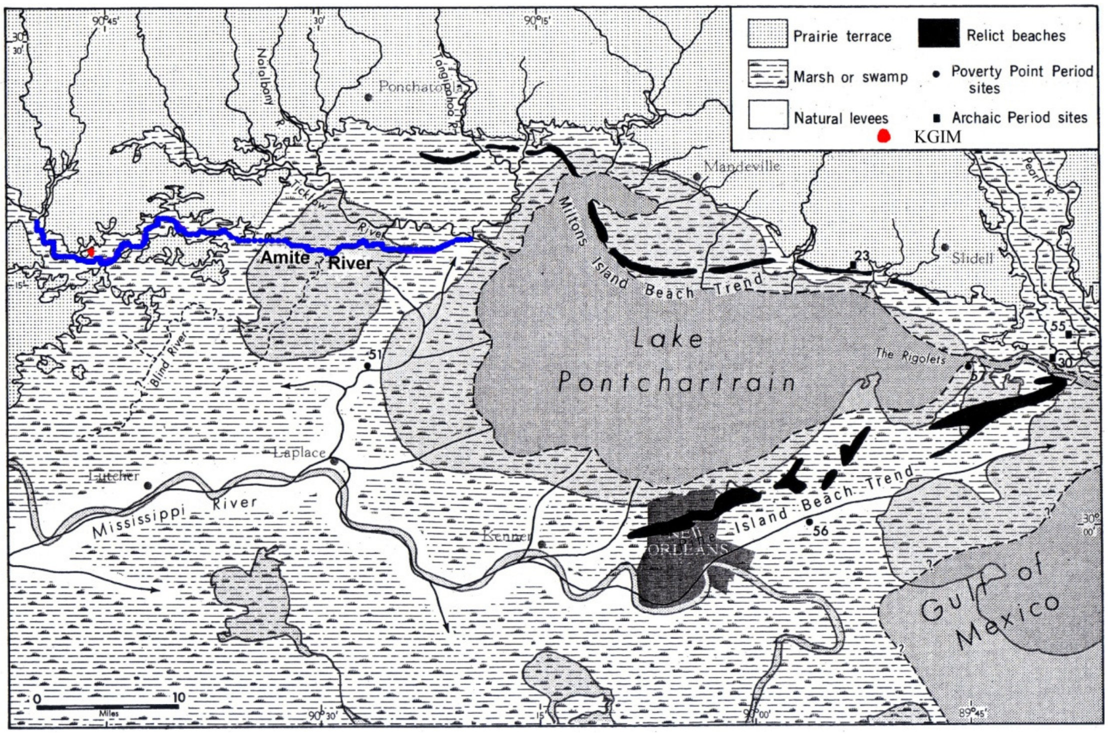


Figure 3-3. Pontchartrain Basin and route of the Amite River (3500-4000 B.P.) (reproduced from Saucier 1963: Figure 23, Lower Amite River and Pass Manchac enhanced).

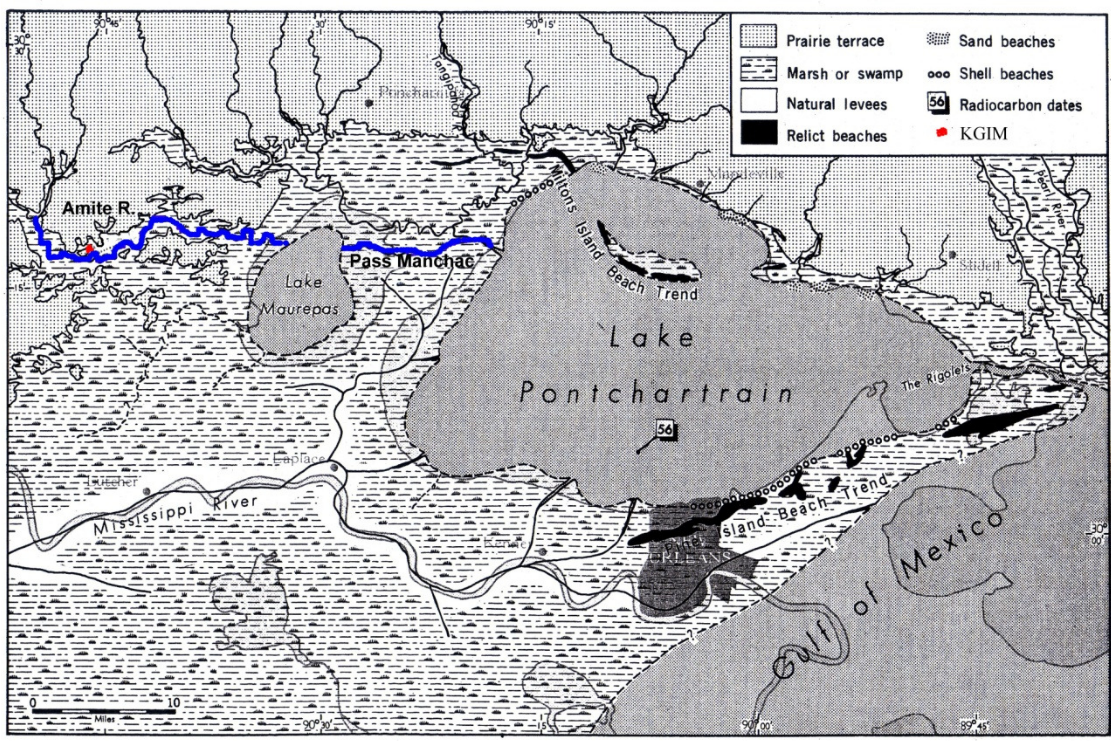


Figure 3-4. Pontchartrain Basin and route of the Amite River and Pass Manchac (2600-2800 B.P.). (reproduced from Saucier 1963: Figure 25, Lower Amite River and Pass Manchac enhanced).

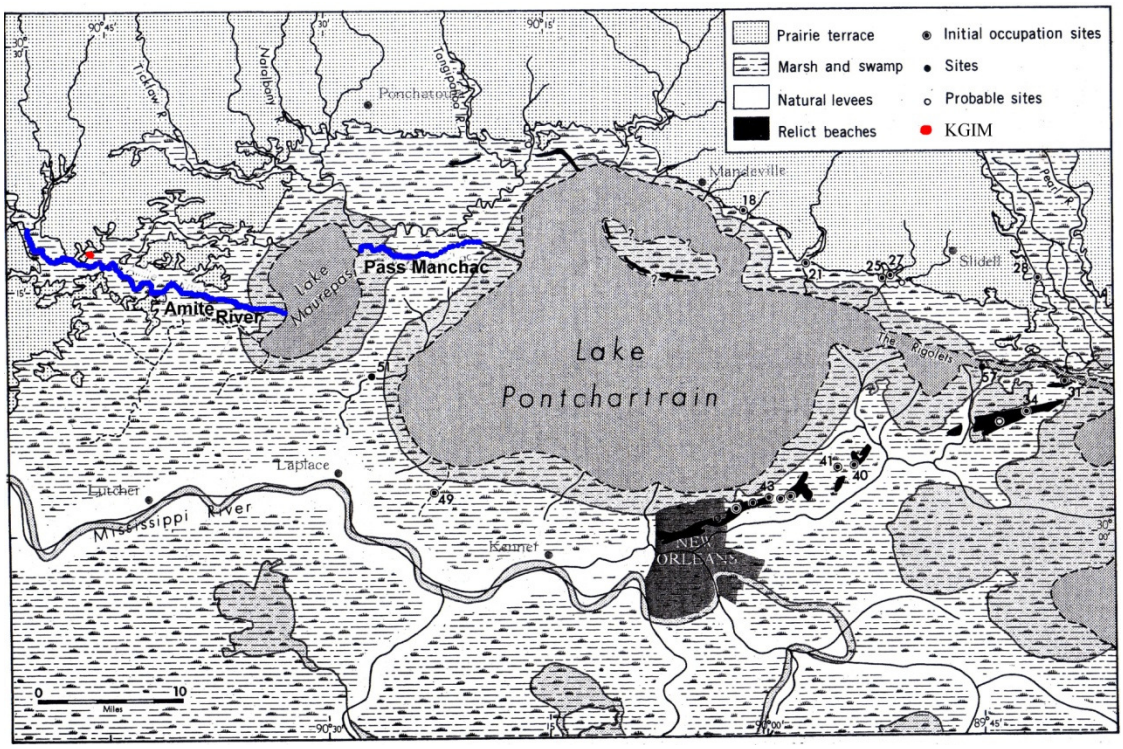


Figure 3-5. Pontchartrain Basin and route of the Amite River, and Pass Manchac (2000-2400 B.P.). (reproduced from Saucier 1963: Figure 28, Lower Amite River and Pass Manchac enhanced).

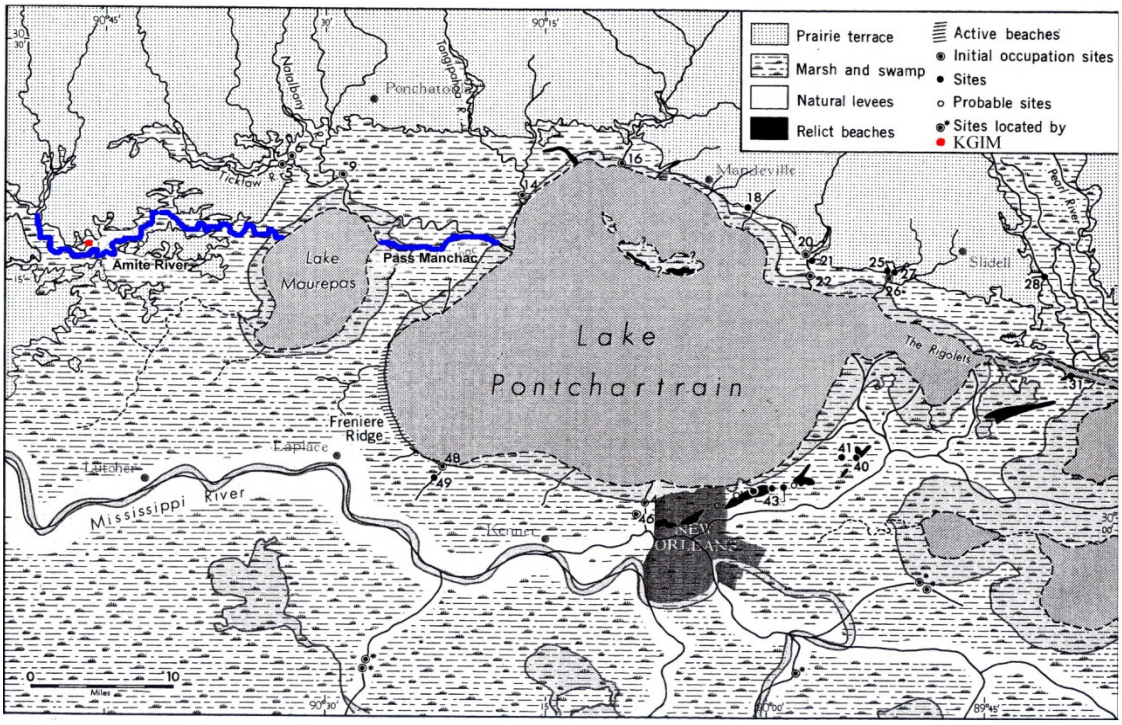


Figure 3-6. Pontchartrain Basin and route of Amite River and Pass Manchac (1400-1800 B.P.). (reproduced from Saucier 1963: Figure 30, Lower Amite River and Pass Manchac enhanced).

NATURAL RESOURCES

From ca. 6000 to 1000 B.P., the Lower Amite River area was a deltaic plain and estuarine environment (Saucier 1963, 1994). The Ponchartrain Basin area remains one of many freshwater swamp and estuarine environments in south Louisiana acting as a habitat for a number of flora and fauna species. Louisiana is affectionately known as "Sportsman's Paradise" because of the many species and abundance of birds, mammals, fish, and reptiles available nearly year round. King George Island and its surrounding area provide an abundant array of those resources, as well as a vast selection of edible plants. Its ecotonal location on the edge of the uplands bordered by lowlands to the south would have allowed for the exploitation of two separate ecosystems.

Due to its proximity to the Gulf of Mexico, the Pontchartrain Basin has a humid subtropical climate. The summers are hot and bring most of the annual precipitation in the form of daily afternoon and evening scattered thundershowers. The winters are mild with occasional frosts due to periodic cold fronts sweeping through the area. The fronts often bring thunderstorms, which make the winters wet.

King George Island has been submerged within a swamp since the site was cut off from the rest of the Pleistocene Prairie Terrace due to rising sea level and subsidence. Previously, the site was bordered to the south by swamp. Swamp flora include cypress, sweet gums, water tupelos, drummond red maple, water ash, hickory, water oaks, among others (Jones and Shuman 1988:5, Saucier 1963:21). Wet areas include water willows, palmettos, alligator weed, cattails, sawgrass, and water hyacinth (Jones and Shuman 1988:5; Saucier 1963:21), the last being an invasive species from South America. The higher areas of the Pleistocene Prairie Terrace remnants support pines, oak, and magnolias. Due to heavy logging during the past century, few mature cypress remain. Pines have been selectively harvested for the last 60 years. This activity

has allowed black willows, buttonbush, broomsedges, briars, and poison ivy to become common on any higher land (Jones and Shuman 1988:5, Saucier 1963:21).

Jones and Shuman (1988:5-7) provide a detailed account of the animal species found within southeast Louisiana. Mammals include deer, rabbit, fox, bobcat, raccoon, opossum, skunk, mink, beaver, and black bear. Nutria, now common in the area, is not native to Louisiana. They were imported in the 1930s for the fur industry, but were released into the wild after a hurricane hit south Louisiana, and have thrived in many areas, including the Lower Amite River (http://www.invasivespeciesinfo.gov/aquatics/nutria.html). Both mink and beaver are less common in the area today than in the early historic period due to excessive fur trapping; they are also being out-competed by nutrias. The black bear is also rare in the area probably because of over-hunting and loss of habitat from urban expansion. Coyotes are common, but this has occurred only since the 1950s, when they moved east of the Mississippi River and were able to outlast the wolves that had existed in the area since the ice age. Wild boars are also common in the area, although they had been heavily hunted until the 1970s. They are not native to Louisiana or the United States as a whole, although they were brought here in the early 20th century for hunting. Due to interbreeding with free ranging domestic pigs, wild hogs have become dominant throughout the southeastern United States.

The area is home to many bird species from owl and hawk to duck, quail, and dove (Jones and Shuman 1988:7). Other birds such as cardinals and jays can also be found year-round in Louisiana. During the winter months many of these birds find their way into the area. Reptiles and amphibians are particularly diverse in this region because of the ample water sources. There are numerous species of snakes, which include several venomous ones. Water moccasins were encountered on a daily basis during fieldwork, but copperheads and pigmy rattlesnakes are also present on higher ground. Multiple species of lizards and turtles, along with

alligators, also call this habitat home. Many different frogs and toads are common in this wet environment (Jones and Shuman 1988:7). Bass, bluegill, and many species of catfish, as well as three different types of gar, live within the rivers and numerous bayous crisscrossing the landscape of southeast Louisiana (Jones and Shuman 1988:7). *Unio* are fresh water mussels that are found farther up the Amite River (Saucier 1963:38), while brackish-water clams, rangia (*Rangia cuneata*), can be found on the north shores of Lake Maurepas. These two shellfish, as well as oysters (*Crassostrea virginica*), are found at various prehistoric sites in this area although oyster shells are associated with only the older Archaic sites inhabited during the Ponchartrain embayment (Jones and Shuman 1988:7; Saucier 1963:38).

CHAPTER 3
BACKGROUND RESEARCH

The idea that mounds were constructed by Archaic period hunters and gatherers in the southeastern United States goes back almost 50 years. But early views of sociocultural evolution deterred many archaeologists from reporting data that verified this. Under a unilineal concept of cultural evolution, anthropologists thought seminomadic hunter-gatherers with egalitarian systems of social hierarchy could not have built monumental architecture such as earthen mounds. They believed that a society had to be agricultural and hierarchically organized to build mounds. The underlying concept was that a people must be able to produce an excess of food, and one person or group of persons must have direct or indirect control of this food surplus, in order to expand control over the labor of other individuals within the society.

Ford and Webb (1956:128) attributed the Poverty Point (16WC5) site mounds to the Early Hopewell tradition, but noted the Late Archaic "nature" of the site. Archaeologists during the 1970s and 1980s had trouble explaining the obvious contradiction Poverty Point represented by possessing earthworks without pottery. To make it easier to accept, the Poverty Point culture was viewed as a unique phenomenon with no identifiable precedent or even a recognizable subsequent manifestation (Russo 1994). Classifying Poverty Point as an isolated anomaly allowed researchers to maintain the paradigm of social advancement by explaining away or simply ignoring the data. In actuality, the Poverty Point (16WC5) site represents part of a mound building tradition that was introduced as early as the Middle Archaic (ca. 6000 B.P.) and continued on into the historic period, albeit with possible 1000 or so year hiatuses before Poverty Point (Saunders 2009) and before Marksville (Gibson 1994, 1996).

In 1963, Gagliano described his Archaic period Amite River phase as frequently including small conical earthen mounds associated with Archaic lithic sites. No additional

research was done concerning those mound sites and many of them have since been destroyed. In 1979, Brown worked out a cultural chronology for southwest Louisiana in the Petite Anse region. In this research, he acknowledged Archaic occupations on Avery Island which included Banana Bayou Mound (16IB24), previously investigated by Gagliano in 1967. The Hornsby Mounds (16SH21, Manuel 1983) and the LSU Campus Mounds (16EBR6, Neuman 1988) sites also produced radiocarbon dates for the Middle to Late Archaic during the late 1970s and the early 1980s. The Monte Sano site (16EBR17) provided the earliest radiocarbon date (6220 ±140 B.P., CEI 1977) for an earthwork in the southeastern United States (Table 2-1). However, this date was rejected as "too old" (Saunders and Allen 1994). This date has since been substantiated with newer dates produced by Hays (1995), as seen in Table 2-1.

During these early years of the Archaic mound debate, the near absence of pottery and/or the lack of artifacts in general were virtually the only evidence pointing towards Archaic period construction for mounds. Except for Hornsby Mounds, LSU Campus Mounds, Monte Sano, and Poverty Point, radiocarbon dating was absent or ambiguous; and those radiocarbon dates suggesting Archaic period construction for mounds were usually challenged. A prime example of these debates can be seen in the published dispute between Neuman (1993), Homburg (1993), and Jones (1993) over the dating of the LSU Campus Mounds. Jones maintained that the soils Neuman dated were not properly obtained. In order to obtain a large sample size needed to radiocarbon date humates, Neuman (1988) combined soil from two separate horizons to produce a sample large enough to be tested. For each radiocarbon sample, Neuman (1988:24) used soil from the basal zone of the mound and from mound fill immediately above. According to Homburg (1993), testing soils from different locations in the mound fill is plausible in this instance. Homburg (1988) was able to prove a single stage construction for each of the LSU Campus mounds by identifying the parent material used. He found that the soil used in

construction of Mound A came from the same relative geological strata as the premound surface intended to be dated. Mann (2009) submitted new radiocarbon dates for the LSU Campus Mounds. Although mound fill was again used to produce these dates, the context is less questionable and therefore help to reinforce Neuman's previous dates. The affirmation of early dates with new dates from several Archaic sites along with the numerous radiocarbon dates that have accrued over the last 20 years have substantiated great antiquity for mound sites in Louisiana. Table 2-1 displays many of the dates from Archaic sites in Louisiana.

In one seminal article on Archaic mound identification, J. Saunders et al. (1994) suggested three criteria for considering a mound as belonging to the Archaic period. The first criterion was the original standard of artifact assemblage. Basically, the artifacts collected at the site cannot disprove the antiquity of the mound. If no post-Archaic artifacts are found at the site, then the possibility remains that the mound might be Archaic. However, the occurrence of post-Archaic artifacts on the surface of the mound or near the mound does not necessarily refute a possible Archaic age for the mound, as these artifacts could have been deposited during a later reoccupation of the site. This discrepancy is why this factor alone was not enough for determining an Archaic age of a mound. The second criterion is that the mound fill has been weathered extensively enough to indicate antiquity. This weathering is measured by the presence and thickness of an argillic (Bt) horizon. A Bt horizon forms from the settling of soils over time. Depending on the environment, this soil development takes some 2500 years to develop. The absence of an argillic horizon contests the Archaic age of the mound. Argillic horizons will be discussed further in a later chapter.

Table 2-1. Radiocarbon dates for Archaic Mound sites in Louisiana.

SITE	LAB#	SAMPLE	CORRECTED AGE	1 SIGMA	2 SIGMA	REFERENCE
Banana Bayou						
	O 1846	charcoal	4560 ±260 B.P.	5577-4876	5886-4524	Gagliano 1967
Frenchman's Bend						
	Beta 55358	charcoal	5530 ±140 B.P.	6490-6184	6634-5996	Saunders et al. 1994
	Beta 61451	charcoal	4170 ±130 B.P.	4845-4528	5045-4296	Saunders et al. 1994
	Beta 55359	charcoal	5720 ±230 B.P.	6790-6286	7155-5995	Saunders et al. 1994
Hedgepeth Mounds						
	Beta 47621	humates	5710 ±110 B.P.	6639-6401	6737-6297	Saunders et al. 1994
	Beta 52776	humates	6550 ±100 B.P.	7567-7334	7605-7268	Saunders et al. 1994
	Beta 47622	charcoal	4859 ±100 B.P.	5717-5472	5887-5323	Saunders et al. 1994
Hornsby Mounds						
	UGa 5336	charcoal	4464 ±210 B.P.	5446-4841	5592-4531	Gibson & Shenkel 1989
	RL 1270	charcoal	2455 ±150 B.P.	2710-2357	2845-2152	Gibson & Shenkel 1989
	RL 1029	charcoal	2930 ±180 B.P	3324-2877	3556-2730	Manuel 1983
King George Island Mounds						
	Wk-14971	humates	4719 ±40 B.P.	5577-5328	5583-5323	Vasbinder 2005
	Wk-14970	charcoal	4455 ±39 B.P.	5275-4975	5289-4890	Vasbinder 2005
LSU Campus Mounds						
	GX 8777	soil	5505 ±235 B.P.	6532-5995	6830-5744	Neuman 1988
	GX 8778	soil	5000 ±180 B.P.	5982-5489	6182-5324	Neuman 1988
	GX 8776	soil	4670 ±185 B.P.	5593-5057	5837-4857	Neuman 1988
	Beta 259456	org. sed.	5330 ±40 B.P.	6186-6011	6267-5994	Mann 2009
Monte Sano						
	GX 1011	charcoal/bone	6220 ±140 B.P.	7273-6944	7420-6794	Coastal Environments Inc. 1977
	NSRL 2667	wood charcoal	6570 ±60 B.P.	7555-7429	7577-7333	Hays 1995
Poverty Point						
(Average)		charcoal	3331 ±107 B.P.			McGimsey & van der Koogh 20(
(Average)		charred cane	2798 ±146 B.P.			McGimsey & van der Koogh 20(
	Tx 8440	humates	2657 ±44 B.P.	2838-2743	2853-2730	McGimsey & van der Koogh 20(
Stelly Mounds						
	Beta 55925	charcoal	4720 ±190 B.P.	5656-5067	5887-4878	Russo 1996
	Beta 63982	charcoal	5260 ±70 B.P.	6176-5935	6263-5907	Russo 1996
Watson Brake(2)						
(Average)		charcoal	4696 ±175 B.P.			Saunders et al. 2005
(Average)		humates/org. sed.	4410 ±200 B.P.			Saunders et al. 2005

The final criterion is that the landform where the site is must have formed prior to 4000 B.P. If the mound is situated on a landform that is younger than 4000 years old, then the mound cannot be older than 4000 years. This does not mean that just because the landform is older than 4000 B.P. that the site is too. The site could have been built long after the development of the landform, but it cannot be older than the landform on which it was built. All three of Saunders's criteria must be met to entertain the suggestion of an Archaic age for a mound site.

In 1992, a symposium organized by Michael Russo brought researchers together to present evidence for Archaic mound construction. Presentations from that symposium were collected and published in *Southeastern Archaeology* in 1994. Russo (1994) discussed the building of Archaic shell mounds in Florida at Tick Island and Horr's Island, presenting ideas of mound use during the Archaic. Piatek (1994) discussed another Florida mound site, the Tomoka Mound Complex. For some 40 years archaeologists had been unable to assign the site to a culture until Piatek's research indicated a Middle to Late Archaic occupation. R. Saunders (1994) presented a number of sites from southeastern Louisiana with radiocarbon dates from the Middle or Late Archaic and/or non-dated sites with Archaic artifact assemblages or no artifacts. The King George Island Mounds site is among those she mentioned, because the site had yielded no artifacts and was on an old landform. Using the aforementioned three criteria, Saunders et al. (1994) identified Frenchmen's Bend (16OU259), Hedgepeth (16LI7), Watson Brake (16OU175), and Hillman's Mound (16MA201) as Archaic. Jackson and Jeter (1994) discussed investigations of a Poverty Point period mound site in southeast Arkansas (Lake Enterprise Mound, 3AS379). And finally, Gibson (1994) mapped many of the early mound sites in the Lower Mississippi Valley. Gibson also extensively examined the different functions of early mounds.

The study of Archaic mounds and their functions has progressed immensely since that first symposium more than fifteen years ago. New Archaic sites have been identified and old

ones have been investigated further. This has allowed for the development of new and exciting concepts. One of the main driving forces behind this new research is the discussion of social complexity among Archaic mound builders. Some of the latest views on this and more are summarized below.

A symposium presented at the 1999 Southeastern Archaeological Conference produced a collection of articles that delved into the social complexity expected for construction of mound sites during the Archaic period throughout the southeastern United States. A common theme throughout these articles was the role inequality served in causing the stratification of societies necessary for the development of a mound building reaction during the Archaic period. Each author reviewed the level of social interaction apparent in Archaic peoples as it relates to several aspects of the society and/or the particular locality within the study area.

A common catalyst considered for creating inequality is the capacity to attain exotic trade goods. Jefferies (2004) investigated the distribution of bone pins in the southern Midwest region compared to the northern boundaries of the Southeast during the Archaic period. He found indications of intensified social interaction leading to increased cultural identity (Jefferies 2004:84-85). He suggested that if access to bone pins from other populations became restricted, then this could have caused inequality to develop within the social group.

White (2004) noted the construction of earth/shell mounds on the Gulf coast of Florida as opposed to shell middens farther up river in Georgia and Alabama. Using inequality as the mode for mound building, she presented a possible reason for the presence of mounds on the coast but not along the Apalachicola, Flint and Chattahoochee rivers. White (2004:20) pointed out that inequality can also begin with the inability to procure the same types and amounts of food sources. With inequality comes an increase in social organization as the community reorganizes itself. The problem with this idea is that in the coastal areas of the Archaic Southeast, food was

plentiful and could be easily acquired no matter your age or sex, providing no reason for equality mechanisms to break down and create disparity within a community. White (2004) could find no evidence for the unraveling of these social standards during the Archaic, which led her to explore alternate functions for shell mounds on the Florida coast. Crothers (2004:95) and Widmer (2004:245-246) observed the abundance of natural resources in the Lower Mississippi Valley and coastal Florida, and attributed the increase in social hierarchy there to this excess creating an increase in population and social interaction. This change allowed mound building to develop in the these two areas, whereas in the Green River area it did not. Even though the Green River environment was very productive, it was limited in its sustainability, which stunted the social development of populations in the area. There is some evidence of this idea by the collapse of the shellfish populations due to over-harvesting during the Archaic period (Crothers 2004:95).

Sassaman and Heckenberger (2004) believed that social inequality can be seen in the layout of mound complexes. On that note, Clark (2004) compared maps and drawings of multiple Archaic sites in the Southeast and suggested that a common measurement system was used. This, among other things, caused Clark (2004) to suspect that the site layouts of each one of the sites he investigated were predetermined by someone or a group of persons prior to construction starting. Clark (2004) believed that the societies creating these earthworks must have been ranked or stratified in some way. In contrast, Crothers (2004:94-95) suggested that mound building societies practiced self-organization.

> "No one designed the layout of mounds, but everyone contributed to the final design. The design had an important meaning, not as a monument but rather as an act of participation. It was clearly a social phenomenon in which many individuals took part, not to build social cohesion but rather to ritualize participation. Participation was not predetermined by membership in society but by individual decision to participate" (Crothers 2004:95).

In other words, no one person or persons coerced volunteers; members of the society chose to volunteer, for whatever reason. In a similar vein, Gibson (2004) argued that, although debt of

gratitude between people is a powerful motivation, it pales in comparison to the patriotic or spiritual zeal one can receive from donating one's time and energy to building a mound.

MOUND FUNCTION

At this point I would like to discuss the different functions that mounds are said to perform. It is important to understand that mound function is a question not only for the Archaic, but for later periods as well. In addition, function can change over time due to a population change or the renegotiating of a culture's ideals and/or practices. Indeed, the construction of a mound may serve an entirely different purpose than the subsequent use (Milner 2004).

The three most commonly cited uses for mounds are: as foundations for housing, as burial places (Aten 1999; Brookes 2004), or as foci for ceremony (Gibson 1992; Russo 1996). Mounds may also be used as territorial markers and/or as trade centers (Russo 2004). None of these functions are mutually exclusive. For instance, it was common in some periods for elite individuals in the Southeast to be buried in the floors of their houses. So a house mound may also act as a burial mound. Also, a burial mound can be a focus of ritual for the descendents of those buried within it; conversely a ceremonial mound complex could be used to bury individuals who had some direct connection with the ceremony involved with the complex.

House Mounds

For the latter portion of prehistory and into the historic period, many mounds were used as substructures for residences of high-ranking individuals such as chiefs and holy men. The elite residential structures were part of planned communities, with mounds arranged around a central plaza. Construction of mounds was directed by leaders to demonstrate their control over pools of labor (Blitz and Livingood 2004). The house mound displayed the importance of that individual to everyone who came to the village. Many of the leaders would be buried within the

mound after they died and their heirs would have continued occupying the mound.

There is scant evidence of Archaic mounds being used as house mounds. Only the Monte Sano Bayou and Frenchman's Bend Mounds sites show signs of any sort of structures. The postholes found at Monte Sano Bayou were on the original ground surface, beneath Mound A (Saunders and Allen 1994). Mounds A, C, and E at the Frenchman's Bend Mounds site all show signs of multiple structures in them (J. Saunders 2004). However, none of these structures are believed to be residential structures. All are presumed to be ceremonial because each was covered by a mound. The only evidence of earthworks being built to support houses during the Archaic is possible postholes identified in the earthen rings at the Poverty Point site.

Burial Mounds

The use of mounds as places for burial was a common practice in the Southeast during the Marksville period (100 B.C-A.D. 500). There are few examples of human burials in Archaic period mounds. Mound A at the Monte Sano Bayou site yielded cremation remains from two consecutive fill episodes within the mound (Saunders and Allen 1994), but they have not been positively identified as human (R. Saunders 1994). One of the three mounds from the Keiffer (16WN9) site included tiny pieces of bone. However, no testing has been done to verify that they are human (Gibson 1994). Samuel Brookes (2004) identified the Vaughan Mound in northeastern Mississippi as a Middle Archaic burial mound, although no explanation for this is given. Mound B at Poverty Point contained burnt bone identified as human (Ford and Webb 1956). However, that bone was lost; Mound B at Horr's Island in Florida contained an Archaic burial, although Russo does not think the mound was built specifically for the burial (Russo 1994). The best evidence of Archaic period mounds being used for burials comes from the Tick Island, in Florida (Aten 1999; Russo 1994). Over 170 burials were identified in a Mt. Taylor period mound at the southern site on Tick Island (Harris Creek 8VO24). Few of the burials

(10% or so) contained artifacts, all of which were Archaic (Aten 1999). Other Mt. Taylor period mounds may also contain burials.

The mounds in which the individuals were buried probably also played a ceremonial role in the society. The mound may have been built on holy ground and the individual was placed in the mound because of their importance. Alternatively, an important person was buried in the mound, it became a place of spirituality for the descendants (and followers) of that person.

Ceremonial Mounds

The idea of building a mound of earth (or shell) in a place of importance is a common occurrence throughout human prehistory. Ceremonial mounds could be erected to honor a person or deity or to commemorate an event and/or the significance of the location. The Burkett (23MI20) site has one mound built during the Late Archaic and added onto during the Woodland period. The mound appears to have been built over an earthquake feature (Thomas et al. 2004). This location may have (due to the earthquakes that were originating from there during prehistoric times) held spiritual significance for the populations living in the area. Gibson (2001) discussed the relationship he observed between spiritual stories of Native American groups in the United States and Poverty Point iconography. He suggested Poverty Point earthworks were metaphors for the cosmic creation story. Gibson (2001:185) observed that the open end of the rings facing east towards the rising sun enabled the Creator's blazing eye to look upon the people. As long as this happened anew every morning the people would flourish. Tribal stories say that death and sickness come from the west and social disharmony and witchcraft from the north. Therefore Gibson (2001:186) believed the Poverty Point people built mounds on the west and north sides of the rings, to help protect them from evil. Gibson (2001:186) also noted the repeated use of the sacred number six in the layout of the Poverty Point site: six mounds, six rings, and six compartments within the rings. As can be seen in these two examples,

Spiritual/Ceremonial purposes would provide the most effective justification during the Archaic for egalitarian populations to decide to come together and pile up loads of dirt. Related to this is the concept of feasting, which provides a mechanism other than inequality to provide labor for the construction of monumental architecture among non-ranked societies.

Feasting**.** The idea of feasting as a mechanism for procuring labor has been developed for every level of social complexity (Hayden 2001). Competitive feasts are used by chiefdom-level societies and require the stockpiling of food sources. Egalitarian societies practice solidarity feasting, which uses more readily available resources. There is no evidence for food storage at any Archaic mound sites. However, most Archaic sites lie in strategic ecotones, especially near waterways. The abundance of aquatic foodstuffs, which are not easily overexploited and can be accessed year round in these environments, would have allowed for semi-permanent occupation without having to stockpile supplies.

Feasting is not necessarily, if ever, just about food consumption. In hierarchical societies, feasts are often used as a show of prestige or power by an individual. There are however, other rationales for coming together in celebration. For band level societies, offspring must marry outside the extended family unit, not only to prevent a lack of variability in the gene pool, but also to encourage inter-societal bonds (R. Saunders 2004a). Feasts can be part of celebrations that bring bands exploiting a particular region together for singing and dancing, and for exchange of information and goods (R. Saunders 2004b). In time, feasting can take on a metaphysical ambience that can create a spirituality associated with the location at which the feasting occurs (Anderson 2004). The spiritual importance of that location could provide the motivation needed for the construction of monumental architecture. The association of feasting with mound use is well documented for the Woodland and Mississippian periods with their use of platform mounds (Knight 2001). Horr's Island shell ring site is one example of an Archaic

period shell ring proposed to have been built in part due to feasting (Russo 2004). Over thirty other shell ring sites along the eastern Gulf coast and southern Atlantic coast have been well dated to the Archaic. Once considered to have accrued slowly over time, new, pertinent archaeological data have all but proven the intentional, rapid construction of many shell rings (Russo 2004; Aten 1999).

Territorial/Trade

Mounds may have been built to mark a central place or to provide a venue for trade (e.g., for trade fairs, as Jackson (1986) has proposed for Poverty Point). These two ideas are often lumped together because of the natural link between them. The mounds would provide a type of advertisement for any outsiders passing through, so that they would know that there are a great people in this location. There is evidence of trade at some Middle and Late Archaic mound sites, but not at most (J. Saunders 2004).

J. Saunders (2004:153) states that there is a lack of imported raw materials at the Middle Archaic mound site Watson Brake. Although this lack does not prove that the people of Watson Brake were not participating in trade with others, it does show that the scope of trade that might have been going on was not at the scale of later cultures such as Poverty Point. The Burkett site is also suggested to have acted as a trade center because of its strategic location (Thomas et al. 2004), although this was not considered the primary reason for constructing the mound. Many of the known Archaic sites are situated in locations conducive for trade, such as at the convergence of two or more rivers. Of course their location could just be because these locations also provide an abundance of different food sources.

Poverty Point, a Late Archaic phenomenon, bares testimony to an extensive trade network. There are large quantities of exotic material found on the site. Trade goods were funneled into the Poverty Point site from far away sources and filtered south and east to

participating communities (Gibson and Griffing 1990; Gibson 2001). Gibson (2001:232-265) discussed the extent of influence of the Poverty Point culture. He produced a three-tier model for distance effecting interaction. The first tier was his "Nearby Communities," which usually did not produce similar artifact assemblages to the Poverty Point site. Next was the "Neutral Zone," which lay some 50 to 150 miles away from the Poverty Point epicenter. Communities in this tier varied in similarity to Poverty Point. The final tier was "Beyond the Neutral Zone" and lay about 170 to 185 miles from Poverty Point. These communities showed some resemblance to Poverty Point, but probably had little direct contact and few indirect dealings.

Some researchers oppose the idea that trade was the vehicle that brought exotic items to Poverty Point. According to Carr and Stewart (2004), the raw stone material came in through gift giving, which explains the vast amounts of raw materials. The inhabitants of Poverty Point were not exchanging goods by trade; they were being given raw materials in higher quantity then were being used. Carr and Stewart (2004:144) suggested that individuals would come to Poverty Point from far off for protection or perhaps on a religious pilgrimage, and bring gifts of stone.

The idea of mounds as territorial markers goes beyond simply signaling a trade location: rather it emphasizes the need to display the power and dominance of the people who built the mound. The idea of mounds as territorial markers hints at increased regional social organization. The recognition of land ownership is often attributed to more tribal-level societies, though it is naïve to think that less organized populations would not view the region in which they and their ancestors have lived and hunted for generations as being "theirs."

Alternate Functions

There is still a more utilitarian use for mounds to discuss. White (2004), who has done research in northwest Florida and southern Alabama and Georgia, maintains that earth/shell mounds existed on the coast of northwest Florida, but not farther up the Apalachicola, Flint, and

Chattahoochee rivers, where shell is spread out in sheet midden deposits. She suggests that the mounded shell on the coast served only to raise the elevation in low-lying areas, and that these mounded middens have no ceremonial function. This hypothesis, of building mounds to stay dry, warrants the investigation of the prehistoric hydraulics of the area specific to each mound site. However, Archaic mounds presently subject to frequent flooding were built on high ground that has subsequently subsided. Indeed, I believe that the sheer amount of work involved in building such massive structures should demonstrate the great importance these mounds had in the lives of those who built them.

DISCUSSION

The recognition of the age of Poverty Point initially prompted archaeologists either to ignore it, or to begin to question the conventional, unilineal model of social development. In time, radiocarbon dates from Poverty Point as well as other sites began to make it defficult to deny the construction of large earthworks by hunter-gatherers during the Late and even the Middle Archaic. A symposium on Archaic mound building conducted in the early 1990s brought convincing evidence to the eyes of the archaeological community. This discussion opened the door for more sites previously assumed to be of later culture periods to be reinvestigated and for new sites to be found.

The earliest aspect of Archaic mounds to be investigated was mound function. This inquiry is complicated by the limited amount of extensive excavation carried out at Archaic mound sites. Common uses for mounds in later cultural periods are: as residences for ranking individuals, as tombs, as ceremonial centers, as territorial/trade markets and even as more utilitarian structures, such as platforms for staying high and dry during the rainy season. Few Archaic mounds have produced burials or signs of structures. The ones that do show signs of structures appear to have supported wooden structures believed to have been for ceremonial

purposes (e.g. Dunbar Mound at Poverty Point) or as crematoriums (e.g. Mound A at Monte Sano Bayou). Given the variability that we see in Archaic mound sites in Louisiana, each Archaic mound site needs to be investigated and its construction and function determined in isolation (as opposed to fitting it in to a predetermined model) as well as with respect to the regional location in which it occurs. This research must be done because reasons for building an earthwork can be different for people living in different regions and even along different rivers within the same region.

In the 21st century, archaeologists have gone beyond proving the antiquity of mound sites to contemplating the modes of development of mound building. Previously, researchers suggested social organization must have been much more complex during the Archaic than was originally expected (Gibson 1974; William and Brain 1983; Kidder 1991). More recent works by Gibson (1998; 2001; and 2004) show that he has rethought the level of complexity needed to create monumental structures during Poverty Point, as well as the Middle Archaic. He does admit that Poverty Point was more complex than its Archaic predecessors and contemporaries, but this difference was only due to the increased activity at the Poverty Point site and not because they were socially organized differently (Gibson 2001:215). The large population residing at Poverty Point created an increase in social interactions leading to more in depth interrelationships. In Gibson's 2004 *Signs of Power* article, he explored the "power of beneficent obligation" that he suggested was the real driving force behind monumental architecture during the Archaic. Gibson (2001; 2004) denounced the idea that a chief wielded the power to build the extensive earthworks at the Poverty Point site, claiming that someone could suggest the building of a mound, but that the cooperative spirit of the community underwrote the mound building. The debate continues on how developed a society must be to create monumental earthworks.

CHAPTER 4
CULTURE HISTORY

In the southeastern United States, lithic assemblages are used for identifying culture periods prior to about 2000 B.C. They are divided into projectile point horizons. Later periods are separated into cultures and are defined by ceramic types. Table 4-1 shows the divisions and their correlating time spans. The succeeding text will more or less follow this format. The subsistence activities, mortuary practices, and settlement data will be discussed for each division when possible. Mound building will also be a focus of discussion in later cultures.

Table 4-1. Culture sequence for southeastern Louisiana
(data from Kidder 2002:Figure 4.2)

Stage	Time	Period	Culture	Phases discussed in text
Formative	A.D. 1500-	Historic	various	-
	A.D. 1000-1500	Mississippi	Mississippian Plaquemine	Medora
	A.D. 700-1000	Coles Creek	Coles Creek	Bayou Cutler
	A.D. 400–700	Baytown	Troyville	Whitehall
	100 B.C.– A.D. 400	Marksville	Marksville	LaBranche Magnolia
	600-100 B.C.	Tchula	Tchefuncte	Pontchartrain
Archaic	1700-500 B.C.	Late Archaic	Poverty Point	?
	3000-1700 B.C.	Late Archaic	Late Archaic	Bayou Jasmine Garcia Pearl River
	5000–3000 B.C.	Middle Archaic	Middle Archaic	Middle Amite River Monte Sano
	7000–5000 B.C.	Early Archaic	-	-
Paleoindian	10,500-7000 B.C.	San Patrice Clovis	?	?

PALEOINDIAN PERIOD (10,500-7000 B.C.)

The Paleoindian period is the least known of the culture periods in the southeastern United States. The evidence, especially for Louisiana, is sparse. There are no data in Louisiana for the early part of the Paleoindian Period (10,500-9,500 B.C.), which Jeter et al. (1989) call the Pre-Fluted Point Horizon—what would now be called "pre-Clovis." Humans may have been in the area during this time, but the remains have been lost due to thousands of years of sea level rise and meandering river systems.

Based on research elsewhere in the U.S., it is assumed that in Louisiana during the Paleoindian period small bands of hunter-gatherers traveled long distances following the migrations of megafauna while exploiting resources of a wide variety of habitats. Men and older boys hunted while women and children collected fruits, seeds, roots, and other plant foods (Neuman and Hawkins 1982).

The Fluted Point Horizon (9,500-8000 B.C.) is characterized by the appearance of Clovis and Folsom points (Jeter et al. 1989:73-75). Clovis points are generally large lanceolates occurring around 9,500-9000 B.C. while Folsom points are smaller and more delicately made, and are common around 9000-8000 B.C. (Jeter et al. 1989:73). The bases of these points were either straight or concave and were finished by smoothing or grinding (Neuman 1984:66). Paleoindian point finds are scattered thinly throughout the state; most are surface finds. Most Clovis points have been found in the northeast and northwest corners of the state, but a few scattered finds have been identified in the northern parts of the Pontchartrain Basin area (Jeter et al. 1989:74). The John Pearce (16CD56) site in Caddo parish produced two Clovis-like points in a possible pit feature. The Eagle Hill site in Sabine parish yielded Folsom-like points. Both the John Pearce and Eagle Hill sites are better known for their San Patrice occupations as will be

discussed later (Jeter et al. 1989:74, Neuman 1984:66). The vast majority of Paleoindian points found in Louisiana are made from Texas flints or Arkansas novaculite (Neuman 1984:68).

The lack of Paleoindian sites for this time makes it virtually impossible to determine any cultural aspects, such as mortuary and settlement patterns or even complete stone tool assemblages. Morse and Morse (1983:68) have proposed two band territories along either side of Crowley's Ridge in northeast Arkansas, and Anderson et al. (1988:Figure 22) suggested five macroband territories encompassing portions of Louisiana and adjacent states. New and exciting research being done at the Gault site in central Texas is providing much needed information on the Clovis and Folsom periods. Gault is a large site along a spring-fed stream producing extremely high quality chert cobbles (http://www.texasbeyondhistory.net/gault/index.html). It contains archaeological evidence for human occupations throughout prehistory. The most intact deposits reflect the Paleoindian period.

Jeter et al. (1989) discussed six point horizons during the later Paleoindian period for the Lower Mississippi Valley and the Trans-Mississippi South. The Agate Basin-like Horizon (ca. 8500-8000 B.C.) is not present in Louisiana. A few Dalton points, indicative of the Dalton Horizon (ca. 8500-7500 B.C.), have been noted in Louisiana (Jeter et al. 1989:77). San Patrice points, which are considered part of the Dalton cluster (similar to Hardaway Side Notched types; Justice 1987:43), have been identified in one third to one half of all parishes in Louisiana including the Florida parishes and are associated with Albany scrapers (Neuman 1984:70-71). Plainview points are diagnostic of the Paleoindian Unfluted Lanceolate Point Horizon (ca. 9000-7000 B.C.). Plainview-like points are common in northwest Louisiana. In south-central Louisiana and East Baton Rouge Parish, Coastview points are numerous and they are similar to Plainview points (Jeter et al. 1989:75). A few examples of points from the Angostura-like

Horizon (ca. 8000-7000 B.C.) and the Early Corner-Notched Point Horizon (ca. 7500-7000 B.C.) have been found in Louisiana, but not in the Pontchartrain Basin area.

The previously mentioned John Pearce and Eagle Hill sites are well known San Patrice phase sites. The John Pearce site is one of the most extensively reported sites of this phase. The stone tool assemblage at the John Pearce site included scrapers (end, notched, and side), denticulates, notched flakes, gravers, drills, and burins, as well as San Patrice point types (Neuman 1984:71-72). These stone tools suggest hunting, butchering, and possibly woodworking activities at the site.

San Patrice points and most other points of the late Paleo-Indian period are made from local gravels (Jeter et al. 1989:81, Neuman 1984:69). It is believed that populations were increasing, and with the gradual disappearance of the Pleistocene megafauna, bands began restricting their territories and exploiting smaller game animals like deer. This accounted for more regional variations of point types and probably for the aforementioned use of more localized raw materials.

ARCHAIC PERIOD (7000-1000 B.C.)

The Archaic period is subdivided into Early (7000-4000 B.C.), Middle (4000-2000 B.C.), and Late (2000-1000 B.C.) and is exemplified by the development of the atlatl and an extensive stone tool kit. Projectile points became a little larger than during the later Paleoindian period, but were crudely made. Many continued to be made of locally available chert, and point types and forms became more varied (Neuman 1984:77; Neuman and Hawkins 1982). A few examples are: Carrollton, Ensor, Frio, Kirk, Trinity, Tortugus, Wells, Macon, Marcos, Marshall, Morhiss, Morrow Mountain, Gary, and Williams types (Neuman 1984:83). Populations during the Archaic continued to increase, resulting in decreasing territories. Archaic peoples began

staying in base camps near streams, especially at convergences of two waterways, where shellfish, fish, and deer can be exploited virtually year round.

The Archaic period has been part of great debate within the field of Archaeology for the past several decades. As discussed in Chapter 2, mound building has been argued (with legitimacy) to be far older than the Poverty Point culture. The Banana Bayou mound dates to the Late Archaic and others like Monte Sano, Hornsby Mound, and the LSU Mounds all date to the Middle Archaic. The beginnings of monumental architecture for the United States quite possibly started during this period of climate change and upheaval. The Hypsithermal or Altithermal was a climatic transition between the terminal Pleistocene and the Middle Holocene periods (Jeter et al. 1989:72). Schuldenrein (1996:26) said "Altithermal; the warm and dry interval between 8000-5000 B.P. was recognized as the central event dictating human adaptive strategies for confronting environmental stress." At this time sea level rose due to glacial reduction and rivers began to meander. The changing climate and influx of salt water caused significant changes in vegetation.

This inconsistency in climate change is suggested as a possible cause for a hiatus in mound building at the end of the Middle Archaic (Saunders 2009). Gibson (1996), and later, Saunders (2009) suggested that around 2700 B.C. the construction of monumental earthworks in the Lower Mississippi River valley came to an abrupt stop, and did not return until the building of the Poverty Point site about 1700 B.C. Gibson (1996) speculated that the hiatus was due to flooding throughout the area around this time, but the evidence in places like the Tensas Basin and the Ouachita Valley show the flooding to be insufficient to induce widespread abandonment to sites in those areas (Saunders 2009). Saunders (2009) notes several sites that may fall within this 1000 year hiatus, such as Cowpen Slough (16CT147), but the evidence is minimal. There could still be sites out there that date to this time span or there may have been sites that have

since been destroyed from this period. Only time and research will help shed light on this stage in mound construction.

Figure 4-1 shows the extent of the cultural and lithic horizons distributed throughout the Middle and Lower Mississippi River Valley during the Early to Middle Archaic periods. The first is the Early Stemmed Point Horizon (ca. 7000-6000 B.C.), which is common throughout east-central Louisiana and Mississippi including the uplands and Prairie Terraces of the Florida Parishes. In Figure 4-1, this is referred to as the Southeastern Stemmed Points, but a similar complex exists further up the Mississippi River and is referred to as the Harden Early Stemmed Points Horizon and naturally emphasizes the Hardin stemmed point type (Jeter et al. 1989:87). The Scottsbluff/Eden/Cody-like Horizon (ca. 7000-6000 B.C.) was originally defined for the Plains area, but these point types are common in southwest Arkansas and even in northwest Louisiana (Jeter et al. 1989:87-88). Jeter et al. (1989:89) mention the Rice Horizon (ca. 6000-5000 B.C.) and I include it in Figure 4-1, but it was defined for southwest Missouri and does not seem to penetrate further south than north Arkansas. The data for this stretch of time is extremely scarce not only for that area but for the entire Mississippi River Valley. A later Side-Notched Point Horizon (ca. 4000-3000 B.C.) is present in northeast Arkansas, but is rare in southeast Arkansas and none are known in Louisiana. The Basal-Notched Point Horizon (ca. 5000-4000 B.C.) is another one that seems to be restricted to north of the Arkansas River. The only evidence for these types of points in Louisiana come from a few Eva-like points found at the Bonner Creek site in Washington Parish, which is the northeastern most of the Florida parishes (Jeter et al. 1989:91). The only actual culture Jeter et al. (1989) discuss for the Early to Middle Archaic is the Tom's Brook Culture (ca. 5000-4000 B.C.). It is defined by the Johnson point, which is why it was previously referred to as the Johnson Horizon. It has become

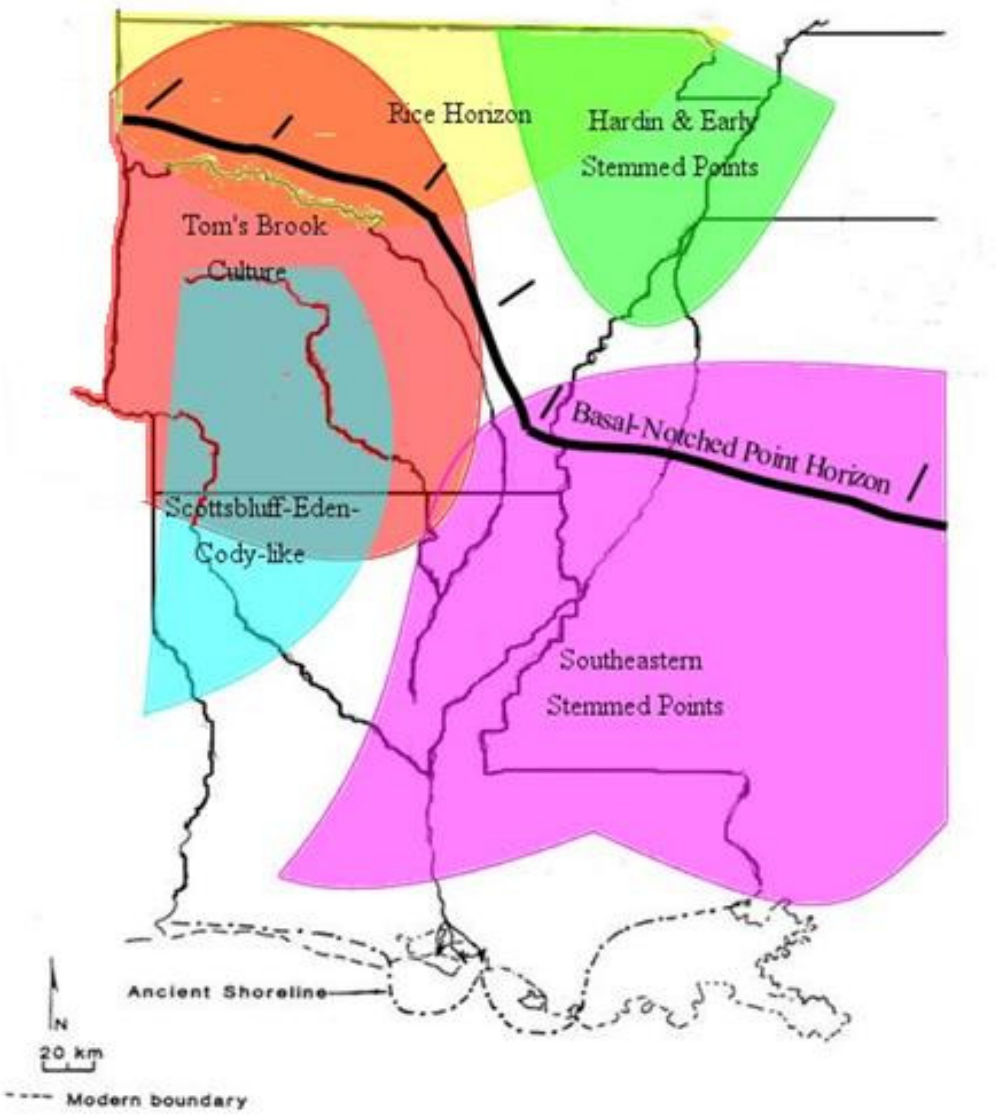


Figure 4-1. Lithic horizons and cultures during the Early and Middle Archaic (drawn from Jeter et al. 1989:Figures 7 & 8).

relatively well identified in southwest Arkansas even though little is known about it. Other than one known occurrence in northwest Louisiana, it is a rare find south of Arkansas (Jeter et al. 1989:91).

The Late Archaic was marked by multiple technological innovations. Key among these is the development of plummets for net fishing (Gibson 2001), clay balls (baked-clay objects) for cooking, stone vessels, and during the Poverty Point culture period, untempered and fiber-tempered pottery (Jeter et al. 1989:94, Neuman 1984:89, Neuman and Hawkins 1982). Although

pottery is found at Poverty Point culture sites, it is limited, which is why the first ceramic-using culture is considered the Tchefuncte culture.

Other developments during this time include the previously mentioned mound building (which was extensively discussed in Chapter 2), increase in trade and exchange, and the first mortuary evidence in the Lower Mississippi Valley. Gibson (1980:326) discusses the trade network present in the Poverty Point area prior to Poverty Point. Remarking that although it was not as extensive as during the Poverty Point culture, it provided some of the same materials.

The only good evidence of Late Archaic burial practices in Louisiana comes from the Cowpen Slough site in Catahoula parish. The 28 burials there date to ca. 2500-2000 B.C. Interment types range from primary and secondary unburned burials to primary and secondary cremations (Jeter et al. 1989:100).

The first Lithic Horizon and/or culture assigned to the Late Archaic is the Williams Point-Big Creek Point Horizon (ca. 3000-2000 B.C.). Big Creek points are common in northeast Arkansas, but because of their similarity to Williams points, which are found from south-central Texas to central Arkansas and northwest Louisiana, Jeter et al. (1989:96) combines the two into one point horizon. Scattered finds of Williams point have been found throughout most of Louisiana (Neuman 1984:84). The Evans Point Horizon and Big Creek Culture (ca. 2500-1500 B.C.) lies on the border of Louisiana and Arkansas and radiates out from there. Several Evans points were found at the Poverty Point site and were attributed to an earlier occupation (Jeter et al. 1989:98). The Evans Point Horizon is accompanied by the Big Creek Culture, not to be confused with the previous Big Creek Horizon, which has no connection other than obtaining their names from the same stream in northeast Arkansas. The last point horizon present before, during, and after Poverty Point is the Late Archaic Stemmed Point Horizons (ca. 2000-1000 B.C.). It is characterized by a number of point types whose production may have continued well

into the first millennium A.D, yet in smaller sizes (Jeter et al. 1989:98-99). The Burkett point type (ca. 2000-1000 B.C.), the ubiquitous Gary type (1500-about 100 B.C.), and the Weems point type (1000-ca. A.D. 100) are the most diagnostic of this horizon. Some of the Burkett points are similar to Gary points, which are associated with the Poverty Point culture, but seem to be widespread during the Late Archaic (Jeter et al. 1989:99).

The Pontchartrain Basin area provides an interesting look at the transition from Late Archaic to Poverty Point. The Cedarland Plantation (22HC30) and Claiborne (22HA35) sites fall on opposite sides of a narrow swampy depression within the Pearl River estuary. The Cedarland site is considered a Late Archaic settlement while the Claiborne site is considered Poverty Point. It is believed that because of their proximity to each other, along with the similarities in site layout and artifact content, and their close temporal association, the two sites may represent sequential occupations of the same population (Jeter et al. 1989:101). They are remarkably similar in layout; both are horseshoe-shaped earth and shell middens with the open ends toward the Pearl River marsh. Both sites were semipermanent village occupations and show no difference in point styles or bone and antler tools. There was a shift in exploitation from oyster shell at the Cedarland site to rangia clams at the Claiborne site. There was also a shift in lithic technology from bipolar reduction to core blade production, and from the production of bannerstones at the Cedarland site to two-hole gorgets at the Claiborne site. Other differences are that the Claiborne site yielded Poverty Point diagnostics such as baked-clay objects, fiber and un-tempered pottery, clay figurines, and Motley points (Jeter et al. 1989:101). The dates for the two sites are questionable because of the later date produced from the Cedarland site (1250 ±130 B.C.), the supposed earlier site. Also, most of the dates from the Claiborne site are earlier than the occupation of the Poverty Point site. Gibson (2001:259) mentioned that James Bruseth, one investigator of the two sites, suggested that they were

inhabited simultaneously by separate and independent groups living side by side. The evidence shows a distinct separation in occupation instead of a gradual abandonment of Archaic traits and adoption of Poverty Point traits, which would be expected if it was the same population moving from one site to the other.

Poverty Point Culture

The Poverty Point culture is one of the most astounding phenomena in the United States. Dates vary depending on the researcher. Neuman (1984) includes it in his Neo-Indian section, which he gives a date of 2000 B.C.-A.D. 1600. Although he does not give a specific date range for the Poverty Point culture, he does mention that six sites in Louisiana have produced dates ranging from 2040 B.C. to 865 B.C. (Neuman 1984:90). Neuman did present a date of 2000-700 B.C. in a previous publication (Neuman and Hawkins 1982) and this date was followed by Gibson (1985:3). Jeter et al. (1989) provide a tentative date of 1700-500 B.C., even though they offer an earlier beginning for the Tchefuncte culture of 600 B.C. They do acknowledge the overlap and suggest that the Tchefuncte culture might even be as early as 700 B.C. or 800 B.C. (Jeter et al. 1989:103,111). More recent investigations of the radiocarbon dates recovered from the Poverty Point site by Connolly (2006) show that occupation of the site was between 1750 B.C. and 970 B.C. Others, like Gibson (2001) and Kidder (2006), believe the end of the Poverty Point Culture to be as early as 1100 B.C.

Webb (1977) presented three stages for the development of the Poverty Point culture. The incipient/nascent stage (1700-1200 B.C.) consisted of mostly small camps with a few larger mound sites like Jaketown (22HU505) and Teoc Creek (22CR504). The Poverty Point site itself was most likely occupied, but construction of the earthworks had yet to begin. Next was the florescent stage (1600-1300 B.C.), which was when the Poverty Point site was being constructed (Gibson 2001). The decline stage (1300-1000 B.C.) is, as its name implies, the conclusion of

the culture (Kidder 2006). Building at Poverty Point ceased and the trade network that had thrived began to decline. Activity at the Poverty Point site became restricted to the edge of Bayou Macon.

There are over 100 known Poverty Point sites in Louisiana, Arkansas, and Mississippi, along with other similar cultural manifestations in Missouri, Tennessee, Alabama, and Florida (Neuman 1984:90). The Poverty Point (16WC5) site was the largest in the Americas during its construction. It includes six mounds, the largest of which is Mound A at a height of 70 feet. Both Dunbar Mound and Sarah's Mount are beside Bayou Macon and are enclosed within six concentric half-circle embankments (Gibson 2001).

The subsistence base for Poverty Point included an array of fauna and flora immediately available to the site occupants through fishing, hunting, and gathering. Deer and other small mammals, along with multiple fish types such as bass, catfish, and gar provided the bulk of the diet, although Gibson (2001:163-164) states that, "out in the swamp, where deer were more numerous and people fewer, deer were taken more frequently," but "around busy Poverty Point, where fewer deer remained close by, greater emphasis was placed on gathering nuts and acorns and on fishing." The best subsistence data for Poverty Point comes from the J. W. Copes site (Jackson 1986), which is a residential campsite (Gibson 2001:159), not a large site with earthworks like the Poverty Point type site. Jackson's (1986) research at the site showed that it was occupied year-round and that the local environment provided a well-rounded diet for those occupants. He determined that Copes could not be a large settlement because most of the resources used were procured within a few miles from home. If the site was a larger settlement, it would have taken more than just local resources to sustain it. Red snapper and brown pelican were the only imported food sources. Jackson (1986) notes the absence of deer bone from the shoulders and rumps to complement the amount of other bones from other parts of the deer that

were present. In addition, fish vertebra were also lacking in the faunal record for the J. W. Copes site, even though heads and tails were present. In other words, it appears that the best cuts of meat were being transported from the site. Jackson (1986) suggested that the settlement was providing at least some food to the neighboring ceremonial center (Poverty Point site). It is not certain why the inhabitants of the Poverty Point site were receiving these gifts, but it could have been to trade for stone material (finished and/or unfinished) that was being brought into the site.

Mortuary data for the Poverty Point culture is almost non-existent. The only evidence comes from the base of Mound B at the Poverty Point site itself. A layer of ash that contained small, scattered fragments of charred bone was found in two trenches excavated by Ford and Webb. One such fragment was identified as the proximal end of a human femur (Jeter et al. 1989:106). It was suggested that this may have been the remains of a crematory fire (Ford and Webb 1956:35, 38). It was previously believed that the burials at Cowpen Slough were from the Poverty Point period, but subsequent analysis determined that the burials were affiliated with the Late Archaic component of the site (Jeter et al. 1989:106).

Trade in exotic lithic materials is what most distinguishes Poverty Point from other Late Archaic manifestations. "Materials found at Poverty Point and related sites include copper from the Great Lakes vicinity, galena from the Potosi region of southeast Missouri and the Upper Mississippi Valley, steatite (soapstone) from east central Alabama and adjacent northwest Georgia, novaculite and magnetite from south-central Arkansas, Midwestern and Ozark cherts, and various other items" (Jeter et al. 1989:107). A fascinating aspect of the Poverty Point exchange system is that it was not restricted either for ceremonial purposes or for a hypothetical elite class (Gibson 2001:176). Exotic material was used for everyday tools and anyone and everyone had access to any and all trade goods. It seems function is what drove the Poverty Point exchange system (Gibson 2001:176). If this is true, then it could explain why so much

lithic material found its way to the Poverty Point site and would give a reason why a site like Copes is lacking the higher quality pieces of meat.

Three major sites with so-called Poverty Point trade items are known for the Pontchartrain basin area: Linsley, Garcia, and Bayou Jasmine; all three lie on the southern edge of the region (Jeter et al. 1989:108). The Claiborne site is also considered part of this coastal representation of Poverty Point culture and is possibly a regional center for this area. On the basis of materials from these sites, two phases have been defined by Gagliano and Saucier (1963:116-119) for the Poverty Point culture in the Pontchartrain Basin region. The early phase is the Bayou Jasmine phase and it includes the Bayou Jasmine site (16SJB2), the Linsley (16OR40) site, and the Claiborne site. This phase is known for baked-clay objects, bone artifacts, and a lack of the microflint technology associated with the Poverty Point culture. The later Garcia phase has the exact opposite artifact assemblage; no baked-clay objects and an extensive microlithic assemblage (Jeter et al. 1989:109).

Towards the very end of the Late Archaic, another cultural formation was appearing in the Trans-Mississippi South. The Fourche Maline culture occupied most of western Arkansas and eastern Oklahoma where it was first defined, and, during its later manifestations, it also appears in NW LA. It is considered the predecessor to the Caddoan cultures of the historic period (Jeter et al. 1989:107). As presently defined, the Fourche Maline culture spanned some 1500 years. The first subperiod (Fourche Maline 1) is dated to ca. 800-400 B.C., but a possible connection to Poverty Point may suggest an earlier starting date. The most diagnostic artifact for this culture is Gary var. *Gary* points (whose commonality has been discussed multiple times in this chapter), but many Poverty Point traits are also associated with Fourche Maline 1. Baked clay objects are not included in Fourche Maline 1 artifact assemblages. The only well excavated site is the Johnny Ford site (3LA5) and little data is available. The Johnny Ford site does have

burials, but they have been attributed to the later Fourche Maline 2 subperiod (Jeter et al. 1989:108).

TCHULA PERIOD (600-100 B.C.)

The Tchula period in the Lower Mississippi Valley lies within the latter half of the Early Woodland period used in the Midwest and Southeast (Jeter et al. 1989:111). Jeter et al. (1989) divide the Tchefuncte culture into an Inland and a Coastal manifestation. The prominent trait of this period is the widespread production and use of pottery.

The two Tchula period cultures outside of Louisiana are the Pascola and the Lake Cormorant cultures. The Pascola culture occupies a narrow strip in northeast Arkansas and southeast Missouri. Diagnostic artifacts include sand-tempered pottery with pinched, punctated, and incised decorations. Weems and Gary-like points are the most common point types. The rest of the artifact assemblage includes multiple bone and stone tools and Poverty Point type baked clay objects. The McCarty (3PO467) site in northeast Arkansas had eight burials that had been disturbed. Burials were flexed in oval pits with a few containing some grave goods (Jeter et al. 1989:113-114).

The Lake Cormorant culture occurs in northwest Mississippi, and it may extend into southeast Arkansas (Jeter et al. 1989:115). Very little is known about the culture including its area of extent, but the pottery is characterized by Cormorant Cord Impressed; baked-clay objects were also used. There are no formal data on mortuary activity, but it is possible that the Mound City site (33RO57) is associated with the culture and it includes burial mounds (Jeter et al. 1989:116).

The Fourche Maline 2 culture is a continuation of the Fourche Maline 1, and the distribution of sites is similar— it occurs predominantly in Oklahoma and southwest Arkansas. However, evidence of Fourche Maline 2 pottery types with Tchefuncte decorations are seen in

east-central Louisiana. Pottery includes crude bone-tempered Cooper Boneware pottery and Williams Plain grog-tempered pottery. Fourche Maline 2 is also characterized by Gary var. *LeFlore* points and bitted stone axes. Burials are generally cremated interments with associated artifacts (Jeter et al. 1989:116-117).

The Tchefuncte culture is basically a Louisiana phenomenon, occupying the Lower Mississippi River Valley throughout Louisiana and adjacent Mississippi. It also includes the entire Louisiana coast to the south and juts northward into southeast Arkansas (Jeter et al. 1989:117). At least 60 of the known Tchefuncte sites lie on the coast (Neuman 1984:135). The culture seems to be absent in the northern half of the Florida parishes and most of western Louisiana except for the coast though the formal spatial definition goes as far north as Natchitoches Parish in northwest-central Louisiana. There is also at least one outlying site in northeast Texas (Resch site, 41HS16) (Jeter et al. 1989:117).

Neuman (1984:135) provided a date range of 500 B.C.-A.D. 300 for the Tchefuncte culture in Louisiana, but Shenkel (1984:44) radiocarbon dated the transition from Tchefuncte to Marksville in coastal Louisiana to around 100 B.C. He also suggested a starting date of 600 B.C. This follows the stage of decline for Poverty Point presented by Webb (1977). Gibson (1985:3) claimed the end of the Poverty Point culture to be 700 B.C., but Jeter et al. (1989) followed the 600-100 B.C. timeframe for the Tchefuncte and those are dates used in this text.

The Pontchartrain phase (Phillips 1970:881-882) is defined for the Pontchartrain Basin area of the "Coastal Tchefuncte" culture. The Tchefuncte culture in the Lake Maurepas and Lake Pontchartrain area changed little for at least 300 years (Shenkel 1981:33), and sites include the type site (Tchefuncte site; 16ST1), Bayou Jasmine (16SJB2), Big Oak, and Little Oak. All of these sites contain thickly deposited rangia shell middens (Weinstein 1986) that have produced radiocarbon dates indicating occupation of the area lasting from 800 B.C. to A.D. 50 (Weinstein

1986:112).

The Tchefuncte "is the earliest culture for which we have physical data on human morphology, mortuary practices, subsistence patterns, and the manufacture of pottery" (Neuman 1984:135). Tchefuncte pottery was often un-tempered, but sometimes, contained some sand or clay (grog). Unlike other cultures during the Tchula period, the clay was not worked prior to firing (Jeter et al. 1989:117), which causes the pottery to be brittle. "Tchefuncte ceramics include a rather wide assortment of plain, incised, punctated (zoned and unzoned), pinched, rocker-stamped, and red-slipped types. Frequently, vessel bases have tetrapodal, multipodal, or various annular arrangements of feet or supports" (Jeter et al. 1989:117).

The Tchefuncte, like other Tchula period cultures, continued to use baked-clay objects, and the rest of their artifact assemblage was quite similar to Late Archaic ones, especially in projectile points. There is widespread use of pottery during the period, but extensive trade of exotic lithic materials is absent (Shenkel 1981).

Evidence for mound building by the Tchefuncte is isolated to "Inland Tchefuncte" even though several mound sites, such as Lafayette Mounds (16SM17) and Beau Mire (16AN17), are along the border of the "Coastal Tchefuncte" zone (Jeter et al. 1989). At present, mounds are only known for the very end of the Tchula period, at a time when Hopewell influence was moving down the Lower Mississippi River. Mounds were built in stages with each building surface containing a burial, sometimes including the pre-mound surface as in the case of the Lafayette Mounds (Jeter et al. 1989:122). Non-mound burials were also common throughout this period. The Tchefuncte site (16ST1), which is in the "Coastal Tchefuncte" zone, produced 58 partial human burials in a large shell midden (Lewis 1995:33). Burials were either primary flexed or secondary bundle burials just like the nearby Big and Little Oak Island sites (16OR6 and 16OR7) and almost never included grave goods (Jeter et al. 1989:126).

Archaeological evidence points to a diverse subsistence pattern for both inland and coastal Tchefuncte culture (Jeter et al. 1989:122, 126). The diet was dominated by either mammals or fish depending on the site. Rangia was extensively harvested at coastal Tchefuncte sites, but surprisingly accounted for a small percentage of meat weight and nutritional value. Excavations at Morton Shell Mound (16IB3) produced a substantial amount of floral resources; the most interesting was the presence of squash and bottle gourd seeds (Jeter et al. 1989:126; Fritz and Kidder 1993:6). Fritz and Kidder (1993:6-7) caution that there is no way to determine undeniably that they were domesticated varieties.

MARKSVILLE PERIOD (100 B.C.-A.D. 400)

The Marksville culture period is more or less equivalent to the Hopewellian/Middle Woodland Period (Jeter et al. 1989127). The Mississippi River Valley includes Hopewellian, Fourche Maline 3, and the Marksville cultures, all of which are distinguished primarily by ceramic decoration or the lack thereof (Jeter et al. 1989). The Marksville culture period is separated into the early Marksville and Issaquena periods.

Hopewellian and later Plainware cultures in the northern part of the Lower Mississippi Valley existed along the Mississippi River from the Arkansas/Louisiana border up into southeast Missouri and southwest Kentucky (Jeter et al. 1989: Figure 12,13). They display the first good data for cultivation of indigenous seed plants (Jeter et al. 1989:132). Most of the mortuary data for southern Lower Mississippi River Hopewell comes from the Helena Crossing site (3PH11). Mound B contained a single log tomb beneath the mound with two adult males. Mound C included five log tombs and several burials without log enclosures. Burials were a mixture of adults, adolescents, and children, but outside the tombs there were only adults. Burials were mostly primary extended or bundle burials with some secondary burials within deep pits with log coverings in mounds, and all were accompanied by grave goods (Jeter et al. 1989:132-133).

During this period, the Fourche Maline culture area shifted south, bringing most of northwest Louisiana firmly into its territory (Jeter et al. 1989: Figure 12,13). Mortuary practices during the Fourche Maline 3 and 4 (100 B.C.-A.D. 400) involve flexed or extended burials in middens with no grave goods. During the Fourche Maline 3, mounds began to be built which included cremations on the pre-mound surface accompanied by grave goods (Jeter et al. 1989:134). This appears to be the result of Hopewellian influence. There are a few examples of Fourche Maline 4 burials and they all appear to have grave goods with them (Jeter et al. 1989:134).

The Marksville culture is considered a Lower Mississippi Valley manifestation of a larger Hopewellian complex encompassing most of the Midwest and southeast United States. It occurred throughout most of Louisiana including the entire Louisiana Gulf coast (Coastal Marksville culture) and all of eastern Louisiana from the Louisiana/Arkansas border to the Pontchartrain Basin area (Jeter et al. 1989:Figure 12). Both Neuman (1984) and Jeter et al. (1989) provide similar dates for the existence of the Marksville culture. Although Neuman (1984) starts it a bit earlier at 200 B.C. instead of the more accepted 100 B.C., all authors end the period at A.D. 400. Within the Marksville culture period, the dates for early Marksville are from 100 B.C. to A.D. 200, while the Issaquena culture subperiod began around A.D. 200 and continued until the end of the Marksville period.

The Marksville culture built conical shaped mounds predominantly for burials; as noted, mound building was one of the practices spread through the Hopewell Interaction sphere. Unlike Hopewell culture burials, for the most part, Marksville burials lack substantial grave goods; however, the Crooks (16LA3) site in east-central Louisiana provided more artifacts than any other Marksville burial mound (Neuman 1984:153). At the Crooks site, flexed burials were the most common type associated with grave goods (Neuman 1984:153). Other burial types

included partially disarticulated, bundle, semiflexed, and extended burials (Kidder 2002:77). Many Marksville culture burials included multiple individuals in single interment episodes. For instance, the Big Oak Island site (a Coastal Marksville culture site on the southern edge of the Pontchartrain Basin area) had one mortuary event with over 50 individuals (Jeter et al. 1989:141).

Marksville pottery was clay-tempered, sometimes including small amounts of sand and grit (Neuman 1984:153-154). Vessels were constructed in a wide variety of shapes, sizes, and decorative style types. Use of baked-clay objects for cooking still persisted into the Marksville period, but in less frequency than in prior culture periods (Neuman 1984:160). The Marksville stone tool assemblages are a continuation of Tchefuncte and previous culture lithic complexes.

The Marksville culture shows the adoption of many Hopewellian traits, such as the idea of grave goods, but their social structure and day-to-day life seems to have stayed fairly similar to the previous Tchefuncte culture. Artifact data from many sites show that the Marksville people continued to be predominantly hunter-gatherers. They had not adopted maize agriculture. There is no direct evidence from Louisiana Marksville sites (Fritz and Kidder 1993:7). The extent of mass burials with minimal grave goods argues for a more egalitarian sociopolitical organization than what is known for the Hopewell culture (Sears 1958:276).

The LaBranche phase was devised for the Marksville culture in the Pontchartrain Basin area, but eventually came to represent all of southeastern Louisiana (Jeter et al. 1989:139). Marksville LaBranche is characterized by Marksville Stamped, var. *Crooks.* The Weiss Mound (16LV2) and Whitehall Mound (16LV19) sites are two Marksville period sites in the Pontchartrain Basin area that are very close to the King George Island Mounds site (Jones and Shuman 1988:26, 58). Weiss Mound is conical shaped, just like the King George Island mounds, but Whitehall mound is pyramidal. Both Weiss mound and Whitehall mound are

around five feet tall with very wide bases (over 100 feet in diameter), similar to the King George Island mounds: Mound A is 4 feet tall with a 126 ft diameter and Mound B is 8 feet tall with a 125 ft diameter. It is because of their relatively close dimensions and their conical shape that the King George Island mounds were considered to be from the Marksville period.

The Issaquena culture subperiod retained most of the traits of the early Marksville culture subperiod, but there was influence from the Hopewellian culture and mound building declined. Another separation between the two is the use of two projectile points (Anthony's Fork type and Gary Stemmed var. *Maybon*) during the Issaquena period that was not used in the previous early Marksville period (Jeter et al. 1989:135).

The Issaquena period LaBranche (also called Magnolia phase) phase, unlike the early Marksville period, has an absence of *Crooks* style pottery, and an abundance of Issaquena pottery types like Marksville Stamped, var. *Troyville*, Yokena Incised, and Churupa Punctated (Jeter et al. 1989:139). Another Issaquena phase for the Pontchartrain Basin area (more specifically the Lower Amite River and Bayou Manchac) is the Gunboat Landing phase derived from several mound sites in the area south and east of the King George Island Mounds site, and includes the Gunboat Landing site investigated by Weinstein (1974).

The Lake St. Agnes site (16AV26) is an Issaquena site that contained one low platform mound (Jeter et al. 1989: 136; Neuman 1984: 164-165). A large burial pit was excavated in the mound with at least five secondary burials within it (Toth 1979: 25-28). No grave goods were found associated with the burials (Neuman 1984: 165).

BAYTOWN PERIOD (A.D. 400-700)

The Baytown period is equivalent to the early Late Woodland period in the rest of the Southeast and midwestern United States (Jeter et al. 1989:141). "Baytown" was originally a superperiod subdivided into Early Baytown (Marksville), Middle Baytown (Baytown), and Late

Baytown (Coles Creek). "Troyville" began as a phase of Baytown in the southern Lower Mississippi Valley, but in south Louisiana it is classified as its own culture coeval with the Baytown period. The Baytown culture is distinguished from Troyville principally by the lack of Mulberry Creek Cord Marked pottery, which is the main indicator of Baytown culture in the Mississippi Delta area (Jeter et al. 1989:142).

Barnes culture existed in northeast Arkansas and is characterized by sand-tempered pottery (Jeter et al. 1989:143). Though the bow and arrow began to move into the Lower Mississippi River Valley during the Baytown period, the absence of smaller arrow points in Barnes assemblages suggests that this culture continued to use the atlatl (Jeter et al. 1989:143). No mounds are associated with the Barnes culture (Jeter et al. 1989:145). The lack of corn remains at sites indicates that the Barnes culture subsisted on the same resources as previous cultures, with perhaps an increase in local cultigens. No mortuary data are known for this complex.

The Fourche Maline 5 and 6 culture periods are a continuation of the Fourche Maline culture complex in southwest Arkansas and northwest Louisiana (Jeter et al. 1989:Figure 14). Subsistence data is lacking, but it is speculated that an increase in horticulture was present (Jeter et al. 1989:147). Shane's Mound (3LA6) was built over a cremation pit, which included some burial goods, while other burials were present in the midden at Shane's Village (Jeter et al. 1989:147).

The Baytown culture occupied the northern portion of the Lower Mississippi Valley in Arkansas and Mississippi. It is characterized by grog-tempered pottery, especially Baytown Plain and the previously noted Mulberry Creed Cord Marked pottery types (Jeter et al. 1989:145). The limited data available show no signs of corn or any other domesticated flora (Jeter et al. 1989:146; Fritz and Kidder 1993:7). The only mortuary data comes from Mound 3

of the Banks site. The mound was placed over two burial pits, one containing an articulated extended-supine burial and the other a bundle burial (Jeter et al. 1989:146).

The Troyville culture existed along the Mississippi River from the Louisiana/Arkansas border down to around Baton Rouge, La., with the Coastal Troyville occupying the entire Louisiana coast (Jeter et al. 1989:Figure 14). About a third of the known sites in the state with Troyville-Coles Creek components lie in the coastal zone (Jeter et al. 1989:152). For the Troyville period, the Whitehall phase is used in the Pontchartrain Basin and is defined by the multi-component Whitehall site in Livingston parish (Weinstein 1974:150). The Troyville culture appears to be a continuation of the Archaic and Woodland period way of life along the coast (Jeter et al. 1989:154-155). Settlements were in wetland environments making estuarine resources the main part of their diet.

Pottery was usually grog-tempered (Neuman 1984:184-185). Baked-clay objects are still in use, but this cooking technique is almost obsolete at this time (Neuman 1984:186). It is believed that widespread use of the bow and arrow began at this time due to the appearance of smaller stemmed point types, like Alba and Catahoula, at Troyville sites all over Louisiana (Jeter et al. 1989:148, Neuman 1984:211-212). The older point types still dominate within the lithic assemblage, signifying the continued use of the atlatl. In fact, there are firsthand accounts of Europeans being killed with darts thrown from an atlatl during the first contacts with the Native American tribes in Louisiana (Swanton 1946).

Mounds could be conical or flat-topped depending on their intended function. Many of the conical mounds contained burials. Early on it was believed that all flat-topped or "platform" mounds were used as substructures for religious structures or houses of the elite (Neuman 1984:169) as they were in later culture periods. Knight (2001) discussed another possible explanation for the countless postholes found in their summits. He suggested that they were

locations for the preparation and consumption of communal food sources. He hypothesized that all of the postholes with no apparent pattern is from frequent scaffolding of unknown objects, which he hinted to be drying racks or storage for food stores (Knight 2001:121).

Mortuary data for the Troyville culture is quite abundant and well studied. Burials were usually extended either in supine or prone position, but bundle and secondary burials are known (Jeter et al. 1989:151-152; Neuman 1984). Artifacts are rarely associated with Troyville burials except at the Old Creek site (16LA102) on the western margin of Catahoula Lake, which had 26 pottery vessels, interred with at least 41 individuals (Jeter et al. 1989:152). Dog burials are fairly common accompanying Troyville burials (Jeter et al. 1989; Neuman 1984). Mortuary data indicate flexed or more often, secondary bundle burials to be the norm during the Troyville period (Jeter et al. 1989:155). Most burials are found in shell middens and include no grave goods. Mound building for this time on the coast is minimal.

Local plant species continued to be utilized and deer remained the most abundantly eaten food, but strong emphasis on aquatic resources is apparent (Jeter et al. 1989:151).

COLES CREEK PERIOD (A.D. 700-1000)

It is during this period that an early expression of Mississippian culture is identified in southeast Missouri and northeast Arkansas. The Plum Bayou culture and the Walnut Bend phase occupy southeast Arkansas before the expansion of the later Plaquemine culture from the south and the Mississippian culture from the north. Also, in northwest Louisiana and southwest Arkansas, the Fourche Maline complex (Fourche Maline 7) evolves into the Caddoan culture. For the rest of this section, I will focus on the Coles Creek culture in Louisiana.

The Coles Creek culture does not extend any further north than the Louisiana/Arkansas border. It includes most of Louisiana except for sections of the northwest, southwest, and upper portions of the Florida parishes (Jeter et al. 1989:Figure 15, 16). The Bayou Cutler phase is the

term used for this area during the Coles Creek period. Two of the type sites for this phase are the Whitehall and Head of Island sites (Weinstein 1974). Both are located along the lower Amite River in Livingston Parish. Along the coast, Pontchartrain Check Stamped pottery varieties are the dominant type during the Coles Creek period (Weinstein 1974:38). Most of the sites in the area have a Coles Creek component and over half of them have a Troyville component included. In fact, almost every site that has a Troyville component has a subsequent Coles Creek component indicating cultural continuity in the area.

There is minimal evidence of corn agriculture during this period and that appears to be from sites on the periphery of the culture (Jeter et al. 1989:169). The earliest signs of maize usage during the Coles Creek period come from the Toltec Mounds in the Arkansas River lowlands and dates to A. D. 700-800. Only four corn cupules were recovered there, while most of the floral remains were dominated by local cultigens like maygrass (Fritz and Kidder 1993:8), none of which seem to be domesticated. According to Fritz and Kidder (1993:8), no corn was found in any of the middens excavated at the Osceola site in Tensas Parish, Louisiana, but a concentration of corn kernels were discovered in a feature dug into Mound B. The feature was dated to ca. A. D. 1000-1200 and also contained eleven tobacco seeds indicating a possible ritual use for the pit. St. Gabriel and Bayou Goula are two other sites that produced maize from perhaps the end of the Coles Creek period (Fritz and Kidder 1993:9). It does not appear that corn was accepted into the diet during the Coles Creek period until later than A. D. 1100 (Fritz and Kidder 1993:11).

During the Coles Creek period the practice of burying individuals within middens ceased and by the end of the period mound burials were also discontinued (Jeter et al. 1989:170). By late Coles Creek times, special areas were set-aside as cemeteries where individuals were buried in extended-supine positions and burial goods were absent (Jeter et al. 1989:170).

LATE PREHISTORIC PERIOD (A.D. 1000-1500)

During the Late Prehistoric period, the three major cultural entities in Louisiana that were in place by European contact became entrenched in their respective regions. The Caddoan culture in the northwest formed out of the Fourche Maline complex, in place in southwest Arkansas and northwest Louisiana since roughly 800 B.C. The Plaquemine culture existed in the eastern half of the state, including the eastern coast. Some believe it to be a continuation of the previous Troyville-Coles Creek traditions (Neuman 1984; Kidder 1998) while others see it as a melding of the Coles Creek culture and the Mississippian from the north (Williams and Brain 1983; Brain 1989). The Mississippian culture, which developed in southern Illinois and spread throughout the Southeast, encroached upon the Plaquemine culture from the north down the Mississippi River and from the east, emanating out of southern Alabama. Within these three major cultural complexes, various tribal societies developed; these were the societies recognized by the first Europeans to explore and settle Louisiana. Some of them, such as the Chitimacha, are still found here today.

By the 1700s, a different Native American group dominated southwest Louisiana. The Atakapa held no ties with the three major cultural traditions just mentioned. They moved in from eastern Texas (Kniffen et al. 1987:46), and their cultural practices were very different then the Caddo, Plaquemine, and Missisippian cultures. Material culture is limited, probably due to their dispersed occupation of the area (Kniffen et al. 1987:44). This behavior can be seen in their architecture. The Atakapa did not build mounds and their houses were composed of poles and mat coverings, making them easy to dismantle and move (Kniffen et al. 1987:114). One other cultural aspect of the Atakapa that distinguishes them from the other Native American cultures in Louisiana was their cannibalistic tendencies. They were known to eat the flesh of their slain foes (Kniffen et al. 1987:44).

Caddoan Culture

At first, the Caddoan culture was viewed as a Mississippian expression on the western edge of the Southeast, but more recently it is perceived as its own formation created out of preceding ideas and customs in that region of the United States. The difference between the Caddo and Southeastern cultures can be seen in their artifactual remains as well as in their language during the historic period (Jeter et al. 1989:171). Yet the Caddo were clearly influenced by Mississippian politico-religious symbolism, as seen at Spiro.

Caddoan pottery was very elaborately decorated. Moore was quoted as saying it was "some of the most beautiful vessels it has been our good fortune to obtain in our years of search" when discussing excavations at the Glendora site (16OU18) (Jeter et al. 1989:203). Pottery associated with burials and/or ceremonial structures was tempered with grit, sand, clay, and less often, with bone or shell. Village site pottery is often hard to differentiate from contemporary and later Mississippi Valley types from the Plaquemine and Mississippian cultures (Neuman 1984:219).

Mound sites were located in valleys of major stream systems, while non-mound sites usually sat on sandy ridges or terraces above small stream systems (Neuman 1984:218). Caddoan mounds were multi-staged flat-topped pyramids or dome shaped; the former are associated with structures, and sometimes burials and the latter are burial mounds. Mound burials included elaborate grave goods whereas village site burials contained more utilitarian grave goods (Neuman 1984:219). Individuals were most often interred in deep pits that have been referred to as "shaft burials." Bodies were often laid in an extended-supine position (Jeter et al. 1989:202-204).

Hunting and fishing remained the focus of late Caddoan subsistence patterns, supplemented with the gathering of nuts and berries and agriculture. Subsistence data from

several Caddoan sites show that deer was the principal source of meat. The Caddo began to cultivate gourd, squash, maize and later beans. The last two were obtained from MesoAmerica (Neuman 1984:255).

Plaquemine Culture

The Plaquemine culture, like the Caddoan culture, appears to be an in situ development. It is believed to be a late prehistoric development of the Troyville-Coles Creek tradition with varying degrees of Mississippian influence (Rees 2007; Roe 2007; Wells and Weinstein 2007; Beasley III 2007). As is the case with many cultural contact scenarios, the indigenous culture selectively adopted traits of the neighboring/intruding culture depending on level of contact, which was in this case Mississippian culture (Roe 2007). The Plaquemine culture area occupied roughly the same territorial limits as its Coles Creek predecessors.

The continuation from Coles Creek is most apparent in Plaquemine pottery designs (Neuman 1984:258). These include types such as Mazique Incised var. *Manchac* and Coles Creek Incised var. *Hardy* (Jeter et al. 1989:206). In addition, the use of shell as a temper in pottery, one of the hallmark Mississippian traits, was not widespread in the Lower Mississippi Valley (Roe 2007:37). Shuman (2007:105) suggested that in south Louisiana, shell tempered pottery might have been used simultaneously with grog tempered pottery. At sites, such as Bois Chactas (16SC4) and Tabatiere Perdu (16SC14), shell and grog tempered pottery was identified, and in some instances the same decorations were seen used with each paste. This would indicate that shell tempered pottery was being made locally. Shuman (2007:105) does present other possible scenarios, such as the possible arrival of the shell tempered ware later on, depending on the analysis and interpretation of ceramic assemblages at various transitional Coles Creek and Plaquemine sites.

Mounds built in multiple stages supporting structures are another characteristic of the

Plaquemine culture carried over from the Coles Creek culture (Neuman 1984:258). Most Plaquemine sites include two or more rectangular mounds around a central plaza, and, in the northern inland region of the culture, sites may contain seven to twenty-four mounds surrounding two separate plaza areas (Neuman 1984:259).

Mortuary data for the Plaquemine culture is very unclear. There is a scarcity of burials that have been definitively attributed to the Plaquemine culture (Jeter et al. 1989:216). It is clear that they continued the Troyville-Coles Creek tradition of mass burials (Neuman 1984:258), and all interments usually included at least some grave goods (Jeter et al. 1989:216-217). Only elites were buried in mounds, much like their Coles Creek predecessors, while most cemeteries were on hilltops or isolated ridges (Brown 2007:153). Like the Caddoan culture, the Plaquemine culture also practiced cranial deformation on their young (Neuman 1984:268).

Plaquemine culture mound sites are considered vacant ceremonial centers utilized by the elite. It is apparent that small residential populations did reside at these mound sites, but not at the extent seen in Mississippian mound centers (Roe 2007:36). The larger multi-mound sites were regional centers and were surrounded by smaller sites with fewer mounds. Beyond these were dispersed settlements (Jeter et al. 1989:214, Neuman 1984:259-260). Plaquemine settlements tended to be situated on natural levees.

There is a lack of evidence for the use of beans, squash, and corn by the Plaquemine culture. This absence of data may be due to poor preservation, or it could be because most of the Plaquemine sites that have been investigated are ceremonial (mound) sites instead of occupational hamlets (Neuman 1984:267). Some areas show a late adoption of maize during the 13th century A.D. (Jeter 2007:185).

Mississippian Culture

The Mississippian culture spread out to influence most of the southeastern United States.

It is marked by the development of the first chiefdom-level societies, an expansion of platform mound centers, and the emergence of the "Southeastern Ceremonial Complex" (SECC) (Bense 1994:251). The Mississippian culture developed into a chiefdom level of sociopolitical organization with a high level of inequality between the elites and commoners. The ruling elite included the chief as well as military and religious leaders (Bense 1994:192). Mississippians built extensive platform mounds used in ceremony and rituals. These rituals were associated with the SECC.

The SECC reached its height between A.D. 1000 and 1200, and is characterized by the hand and eye and death motif, among other motifs (Emerson 1997). The main themes emphasized in SECC material culture were ancestor worship, war, and fertility (Bense 1994:195). The artifacts associated with this complex were reserved for elite-status use and are almost always found in mounds accompanying the burials of ranked individuals (Neuman 1984:276-277). Evidence at the Moundville site (1TU500) showed that burials included more elaborate and exotic artifacts towards the end of the SECC (Jeter 2007:168). Burial tombs for the elite were often times lined with logs, as in previous culture periods (Bense 1994:207).

Mississippians are considered the preeminent maize agriculturalists of the late prehistoric. Agriculture was practiced throughout the culture area, but in varying degrees of intensity (Bense 1994:186-190). In the upland riverine settlements, subsistence was centered on maize supplemented by hunting and fishing. Other crops like squash, sunflower, marsh elder, gourd, and later beans were also grown on the levees and other high ground in flood plains. Along the coast, the Mississippians practiced limited agriculture, raising maize, beans, and squash in small fields scattered about the coastal plain. Due to the limited amount of soils that are annually fertilized by flooding, fields had to be frequently moved as the agricultural soils were depleted. Consequently, the Mississippians living in coastal areas had to live primarily on

hunting, fishing and gathering much like the previous Woodland period.

The Mississippian culture intruded on the Plaquemine culture on the Louisiana coast during the later part of this period (A.D. 1200-1500). The Pensacola variant of the Mississippian culture, which was defined along the Gulf coast of west Florida, and in southern Alabama and Mississippi, spread westward into the Pontchartrain Basin area (Jeter et al. 1989:191). It is identified by shell-tempered pottery sometimes decorated with SECC motifs (Jeter et al. 1989:192). Unfortunately, little is known about this intriguing culture contact situation. The northern intrusion of Mississippian traits into the Lower Mississippi Valley has been well researched, but its importance here may be minimal.

It is quite surprising at how little is actually known about the cultures flourishing during the Late Prehistoric period. With an abundance of sites and a wealth of artifacts to research, it appears that there is too much data to analyze and not enough people in the field of study. Those who are working on this extensive culture period, such as Bense, Kidder, and Brain, agree that so much more is left to do.

CHAPTER 5
PREVIOUS RESEARCH IN THE STUDY AREA

The Lower Amite River area has been explored by a number of archaeologists and geologists. Saucier (1963) mentioned five prehistoric sites in this area in his Pontchartrain Basin study. Two of these, Whitehall (16LV19) and Clio (16LV15), are mound sites. Both sites contained a mound as well as a nearby midden. The other three, Carthage Bluff Landing (16LV14), Head of Island (16LV5), and Old River (16LV25) are all shell midden sites. These were the first of many sites to be investigated along the Lower Amite River.

WEINSTEIN'S LOWER AMITE RIVER RESEARCH

In a study conducted for his Master's thesis, Weinstein (1974) returned to the original five sites that Saucier had observed and recorded an additional fifteen. Table 5-1 shows the ceramic assemblages from sixteen of these sites along the Lower Amite River. Weinstein conducted archaeological excavations at seven of the twenty total sites. By studying the ceramics, he was able to provide an overview of the prehistoric settlements of the area. I discuss these sites below, dividing them into three categories: rangia shell middens, earth middens, and mound sites. Multicomponent sites might have components in each of these categories.

Twelve of the twenty sites have a rangia midden component. Weinstein tested six of these twelve sites: Mouth of Amite (16LV38), Clio (16LV15), Gun Boat Landing (16LV40), Bayou Chene Blanc (16LV43), Diversion Canal (16AN16), and Carthage Bluff Landing (16LV14). The other six, Old Tree (16LV37), Davidson Swamp (16LV12), Magnolia Landing (16LV36), Head of Island (16LV5), Submerged Weir (16LV39), and Old River (16LV25) were only surface collected. Most of the shell midden sites (8) were designated as containing Marksville and/or Coles Creek period occupations. Only three had evidence of earlier occupations. Gun Boat Landing, Clio, and Bayou Chene Blanc) contained artifacts from the

Tchula period. Mouth of Amite, however, contained an endscraper that Weinstein believed was diagnostic of the Archaic period, but no other Archaic artifacts were found there. Several (n = 3) showed possible activity into the Mississippi period. Two, Clio and Magnolia Landing, are present on a 1771 map as historic Pascagoula Indian villages. Three of the six unexcavated sites could not be assigned to a time period.

Table 5-1. Lower Amite River sites and the percentage of sherds from each culture period (data from Weinstein 1974:Table 35).

NAME	SITE	TCHE.	MARKS.	TROY.	C. C.	PLAQ.	MISS.	BAY. PLAIN
Mouth of Amite	16LV38				0.3%			99.7%
Carthage Bluff Landing	16LV14				9.6%		12.1%	78.3%
Clio	16LV15	0.1%		1.3%	8.6%	0.4%		89.6%
Gun Boat Landing	16LV40		0.5%	0.9%	9.6%			89.0%
Whitehall	16LV19			2.4%	1.9%	4.6%	0.3%	90.8%
Bayou Chene Blanc	16LV43	5.5%	2.7%	0.6%	6.9%	0.1%	0.7%	83.5%
Diversion Canal	16AN16		0.4%	0.8%	5.7%			93.0%
Old Tree	16LV37							100.0%
Davidson Swamp	16LV12							100.0%
Magnolia Landing	16LV36				21.9%			78.1%
Whitehall Cemetery Mound	16LV41							100.0%
King George Island Mounds	16LV22							100.0%
Old River	16LV25		3.6%	3.6%	17.9%			74.9%
Head of Island	16LV5		0.7%		8.1%			91.2%
Submerged Weir	16LV39							100.0%
Lake Villars	16AN7				3.1%			96.9%

The second component type is non-shell (earth) middens. There are only three in this category. Whitehall had an earth midden, though its extent is unknown. The midden has only been exposed and tested underneath the mound. The earth midden appears to be a Marksville period deposit. The other two sites with earth midden components, Diversion Canal and Bayou Chene Blanc, were previously mentioned because they also contained shell middens. Bayou Chene Blanc had an organic midden that was much thicker than the shell midden on top of it.

Diversion Canal had a thinner shell midden in between two thick organic midden layers. Both sites display a wide temporal occupation span, but Coles Creek pottery predominated at both (Weinstein 1974:207,223-224).

The third category is mound sites. The previously mentioned Whitehall site contained a 4 ft conical mound on top of an earth midden. Whitehall was the only one of the seven mound sites in which the mound itself was tested. The mound at the Clio site is a 5 ft conical mound that was not tested; however, the shell midden next to it was. The midden showed evidence of occupation from the Troyville to the Plaquemine period, and there may be evidence of a Tchula period component. Only one Tchefuncte pedal support was recovered from the site. Weinstein (1974:109) is hesitant about assigning a Tchula period component to the site on the basis of one artifact. The Clio site is pinpointed on a 1771 map as a historic Indian village, but no evidence was found during excavations to verify that it was a historic Native American site. Three of the other mounds, Old Davidson Place (16LV10), Pocket Island (16LV20), and Indian Mound (16LV1), were all 2 ft conical mounds. Weinstein found no artifacts on the surface of any of these sites. Whitehall Cemetery (16LV41) and King George Island Mounds each had one or two sherds recovered from the surface. Whitehall Cemetery had one 4 ft conical mound; one plain ware sherd was recovered from the site. At the time the Kind George Island Mounds site was thought to have one 4 ft conical mound and one 7 ft conical mound. The two plain body sherds Weinstein recovered from the surface of Mound A at the King George Island Mound site, along with the conical shape of the mounds, prompted Weinstein to tentatively classify the site as Marksville.

Two other sites were visited by Weinstein: Jones Field (16LV42) and Lake Villars (16AN7). Neither site appeared to have a midden. Only Lake Villars had sherds. These were

collected from the surface and were considered Coles Creek. Jones Field produced only a stone core, although the owner of the property claimed to have recovered many points from the area.

Weinstein believed that the Old River, Whitehall, and Whitehall Cemetery sites were temporally related, but understood that further excavations would be needed to verify this belief. He was unsure if the Whitehall and Clio mounds were conical Marksville mounds or Troyville platform mounds. It is easy to note that more archaeological investigations should be made and will likely lead to additional site developments and discoveries.

Jones and Shuman (1988) reinvestigated six mound sites in the Lower Amite River area in their "Archaeological Atlas and Report of Prehistoric Indian Mounds in Louisiana." Each site was mapped. Surface collections were made when possible. Curiously, all of the mounds were higher in the Jones and Shuman maps than in Weinstein's (1974) estimates, except for the King George Island mounds, which were slightly smaller. Jones and Shuman observed no artifacts on any of the sites. They classified all of the mounds as conical except for the Clio and Whitehall mounds, which they determined to be pyramidal platform mounds. Jones and Shuman did not make an assessment on the shape of the Whitehall Cemetery mound; they only restated Weinstein's comments that it could be either a conical or a pyramidal platform.

KING GEORGE ISLAND MOUNDS

The King George Island Mounds site was first reported in 1957 by Gagliano and Saucier as the Bay Point site (Jones and Shuman 1988). Weinstein (1974) noted that Gagliano and Saucier did not visit the site. Weinstein was the first to visit the site, in 1974. He provided the first accurate location of the site, estimated the size of the mounds, and mentioned a swale between the mounds measuring 125 ft long. The mounds appeared to have been pothunted. He also noticed that Mound A (the smaller of the two) had an old logging trail running across the top.

Jones and Shuman produced the first map of the site in 1988. Their map (Figure 5-1) clearly shows the aforementioned swale between the mounds, but it is measured as 20 ft from the eastern base of Mound A to the western base of Mound B. They determined that Weinstein's measurement was from the summits of the two mounds, instead of their bases, even though his measurement does not match their own measurement of 95 ft from the tops of each mound. With laser transit measurements, computer-generated contour maps and better georeferenced maps, we now know that a ridge is present between Mounds A and B, not a swale. The area likely appeared lower relative to the mounds on either side of it to the investigators. Jones and Shuman saw the same depressions in the mounds that Weinstein thought were potholes, but Jones and Shuman could not verify that they were indeed from pothunters. Jones and Shuman agreed with Weinstein that the conical shape was similar to known Marksville period burial mounds.

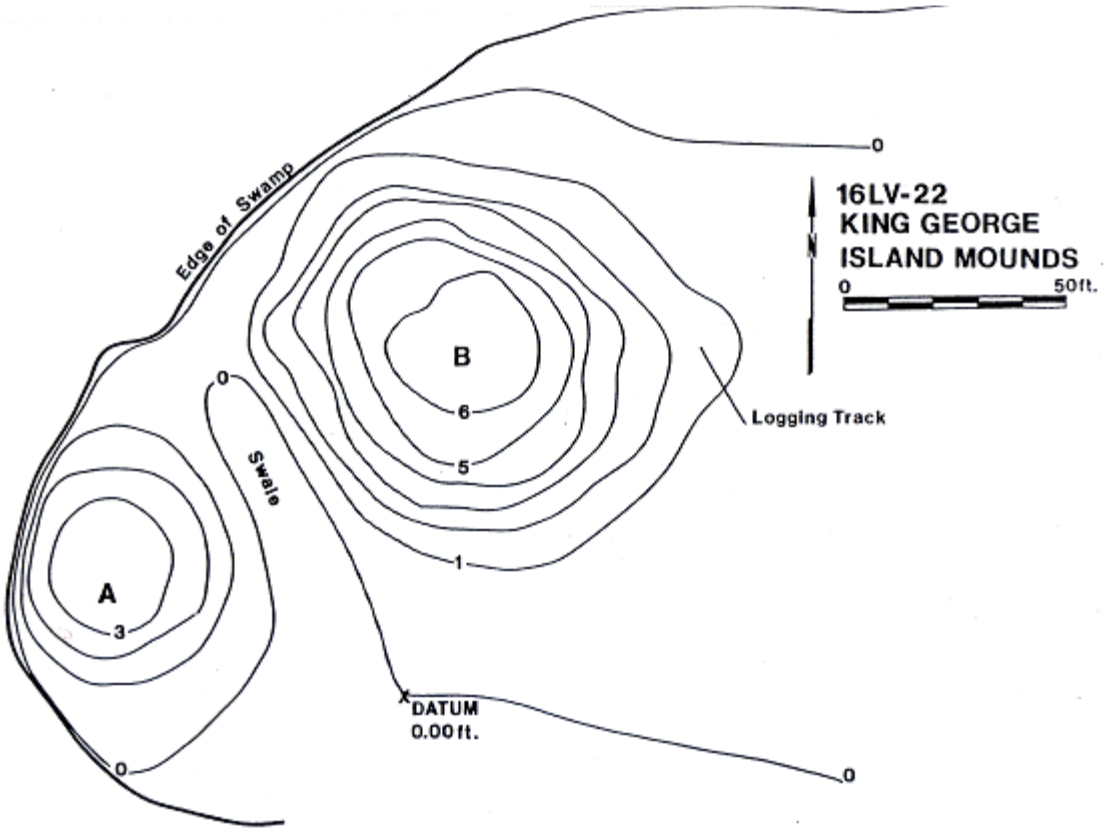


Figure 5-1. Mounds A and B: King George Island Mounds site (Jones and Shuman 1988: Figure 47). Reproduced by permission of authors.

However, Jones and Shuman noted that other pairs of conical mounds found in Louisiana, such as the LSU Campus and Monte Sano mounds, might predate the Marksville period. Jones and Shuman considered that the inaccessibility of the site might indicate an Archaic origin for the King George Island Mounds site.

LOUISIANA STATE UNIVERSITY RESEARCH

Rebecca Saunders directed the most recent research at the King George Island Mounds site with Louisiana State University students and volunteers (Vasbinder 2005). The fieldwork was done during the spring and fall of 2003. On their initial investigations, they discovered that the site included a 200 meter long ridge running east from the foot of Mound A (Figure 5-2). By the end of the fieldwork, an additional ridge extending 90 degrees off the main E-W ridge had been mapped and three additional mounds were mapped and tested, two along the ridge and one just south of the ridge. Mound C is located at the end of the newly discovered N-S ridge. Mound D is a subtle topographic rise located near the center of the main ridge and Mound E is 90 degrees north of Mound D. Mound E was only noticed when the topographic map of the site was completed and it has not been tested. Another mound was discovered during these field investigations about .24 miles (386 meters) north of Mound B. To date, it has not been mapped or tested.

In 2003, two (April-May 2003 and October 2003) field seasons were completed. During this time, a total of 66 shovel test pits was dug on and immediately adjacent to the ridge. A 1x1 unit was dug on Mound A and Mound B to depths of 87 and 80 centimeters below surface (cmbs), respectively. A total of six soil cores was taken throughout the site: three cores along the ridge, two were taken from the base of Unit 2 in Mound A, and one from the base of Unit 1 in Mound B. The depth of the cores ranged from 42 cm to 97 cm. Units 3, 4, and 5 were placed on the ridge at high probability locations (as determined from Shove Tests). Unit 3 was taken down

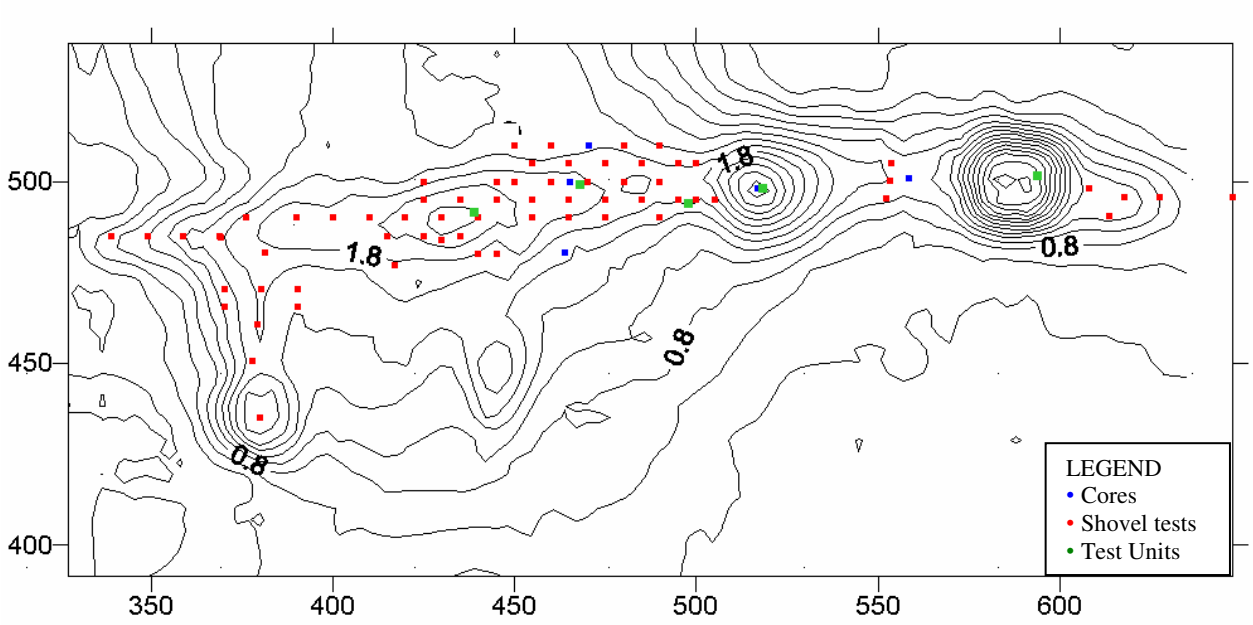


Figure 5-2. Topographic map of Area A of King George Island Mounds site showing all prior subsurface investigations (Vasbinder 2005:Figure 5-20). Reproduced by permission of author.

to a depth of 80 cmbs in the north half and 100 cmbs in the south half. Unit 4 was taken down to 80 cmbs and then the western half of the unit was taken to 115 cmbs but was not screened. Unit 5 was taken down to a depth of 90 cmbs. With the assistance of Dr. Rob Mann of the Regional Archaeology Program, a topographic map was completed for the portion of the site on the main landform, which I have designated Area A (Figure 5-2).

By using the three criteria for determining the antiquity of mounds developed by Saunders et al. (1994), Vasbinder (2005) established the Archaic construction of the King George Island Mounds site. She noted that Area A of the site was built on a Wisconsin age (Saucier 1994) Pleistocene Prairie terrace remnant, which was exposed prior to 4000 B.P. The Archaic artifacts found on the site also support her hypothesis. In some excavations, an Ab horizon was identified below the ridge and this buried A contained only Archaic period artifacts. Vasbinder (2005) identified an argillic horizon in Mounds A, B, C, and D, and the artificial ridge, which indicates a construction of over 2500 years ago. Radiocarbon dates of soil humates from the Ab horizon produced corrected dates of 4455 ± 39, 4719 ± 40, and 4400 ± 80 (Table 5-

2) (Vasbinder 2005). A total, 215 sherds were found on the site; 57 in a shovel test pit on the east flank of Mound D, and 116 sherds were found in excavation units and shovel tests placed in the ridge between the mounds. Despite these sherds, which were either from disturbed contexts or from near the surface of the site, Vasbinder concluded that the preponderance of evidence indicated that the mounds were Archaic in origin. She also hypothesized that the strategic placement of the King George Island mounds on the edge of the Pleistocene Prairie terrace overlooking a waterway may indicate involvement in an Archaic trade network.

Table 5-2. Radiocarbon dates for King George Island Mounds site.
(from Vasbinder 2005:Table 7-1)

SAMPLE	LAB #	PROVENIENCE	CORRECTED AGE	1 SIGMA	2 SIGMA
Humates	WK-14971	Unit 5 West Wall buried A (62-68cmbs)	4719 ± 40 B.P.	5577 - 5328	5583 - 5323
Charcoal	WK-14970	Mound A fill	4455 ± 39 B.P.	5275 - 4975	5289 - 4890
Humates	GX-30263	STP 495N,475E buried A (42-63cmbs)	4400 ± 80 B.P.	5213 - 4861	5287 - 4845

CHAPTER 6
FIELDWORK

The fieldwork for my thesis on the King George Island Mound site began in October of 2004. Research was carried out under direction of my advisor, Dr. Rebecca Saunders, and with help from volunteers from the Baton Rouge Chapter of the Louisiana Archaeological Society, Regional Archaeologist, Dr. Rob Mann, and both graduate and undergraduate students at Louisiana State University. The bulk of the fieldwork was done during the Fall of 2004, the Spring of 2005, the Spring of 2006 and the Fall of 2006. Periodic trips to finish up mapping and other incidental fieldwork continued into the Spring of 2009. The primary objectives were to locate any habitational features on the rest of the island by shovel testing at regular intervals across the western half of the island, and to test two additional mounds located south of the known site to see if they were related.

MAPPING

Research for my thesis began in the Spring of 2004 when Mr. Reuben Keller guided Phillip Taylor and me to a small island south of King George island and showed us two previously unknown mounds. Philip and I recorded height and circumference measurements for both mounds that day and later brought Dr. Saunders out to see them as well. We decided that these two mounds must also be investigated. In November of 2008, I mapped Mounds F and G with a Total Station. Subsequently, these data were tied into three known points on Mound C and the ridge in Area A of the site, and thus to the basemap of that site, created by Dr. Rob Mann of the Regional Archaeology Program. Figure 6-1 shows the resulting combined map of Areas A and B of the King George Island Mounds. Aerial photographs of the area were used to produce other maps by superimposing data from field maps.

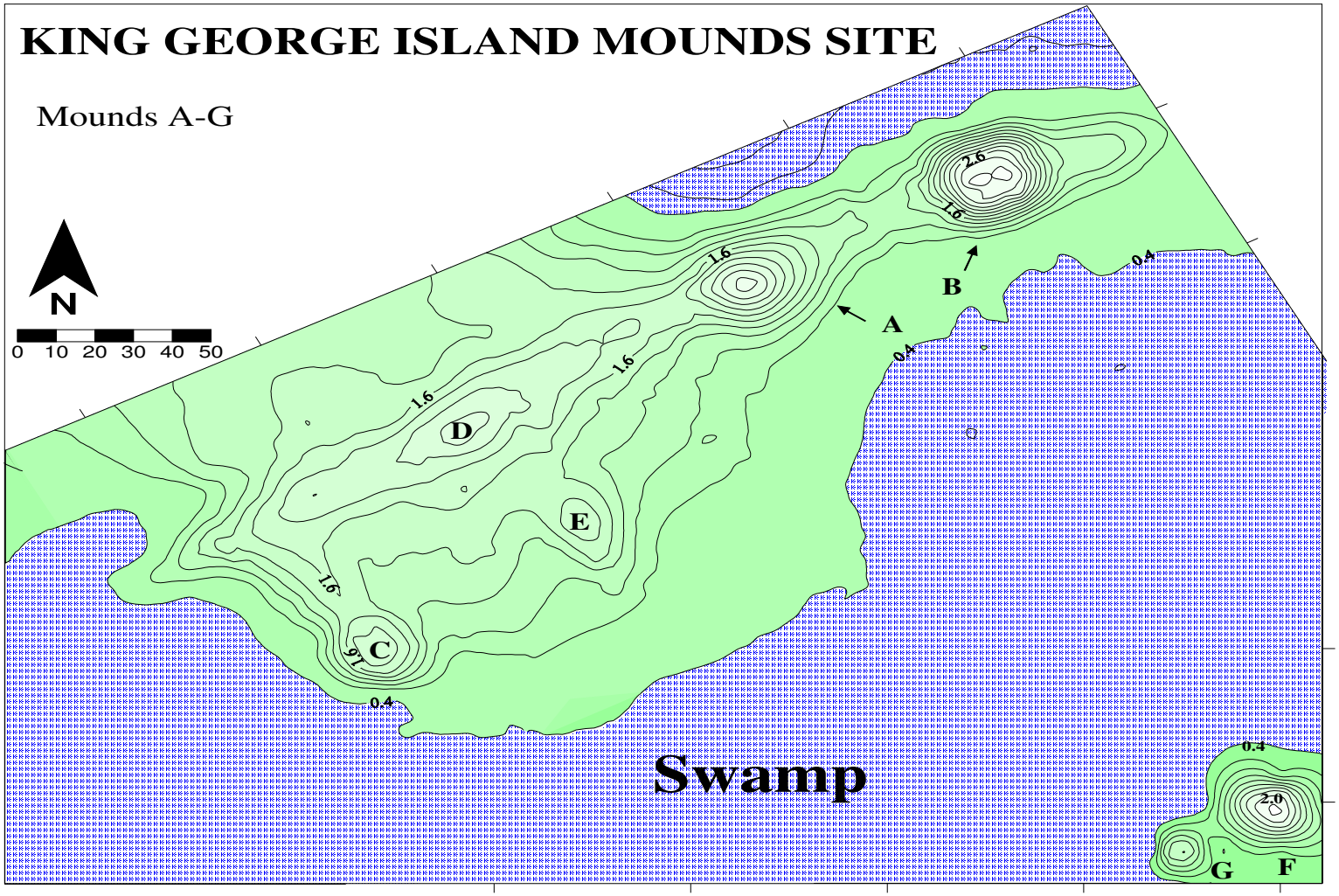


Figure 6-1. Contour map showing the entire King George Island Mounds site. Map by Harry G. Brignac Jr.

The earthworks at the site can be seen in Lidar imaging (Figures 6-2 and 6-3). The Lidar data were acquired from http://atlas.lsu.edu with the help of Paul Heinrich of the Louisiana Geological Survey. Figure 6-2 shows the Lidar image of King George Island in shaded 2.5ft (.76 m) intervals. The image emphasizes the subsided nature of the landform. Figure 6-3 shows the King George Island in 5ft (1.52 m) intervals. At both intervals, every earthwork on the site can be seen, although at the 5 ft interval, Mound C and part of the ridge connected to it are harder to make out. Even the still-unmapped mound to the north of the site can be seen if one knows where to look. This imagery is useful, because it shows other peaks in the area that warrant investigation.

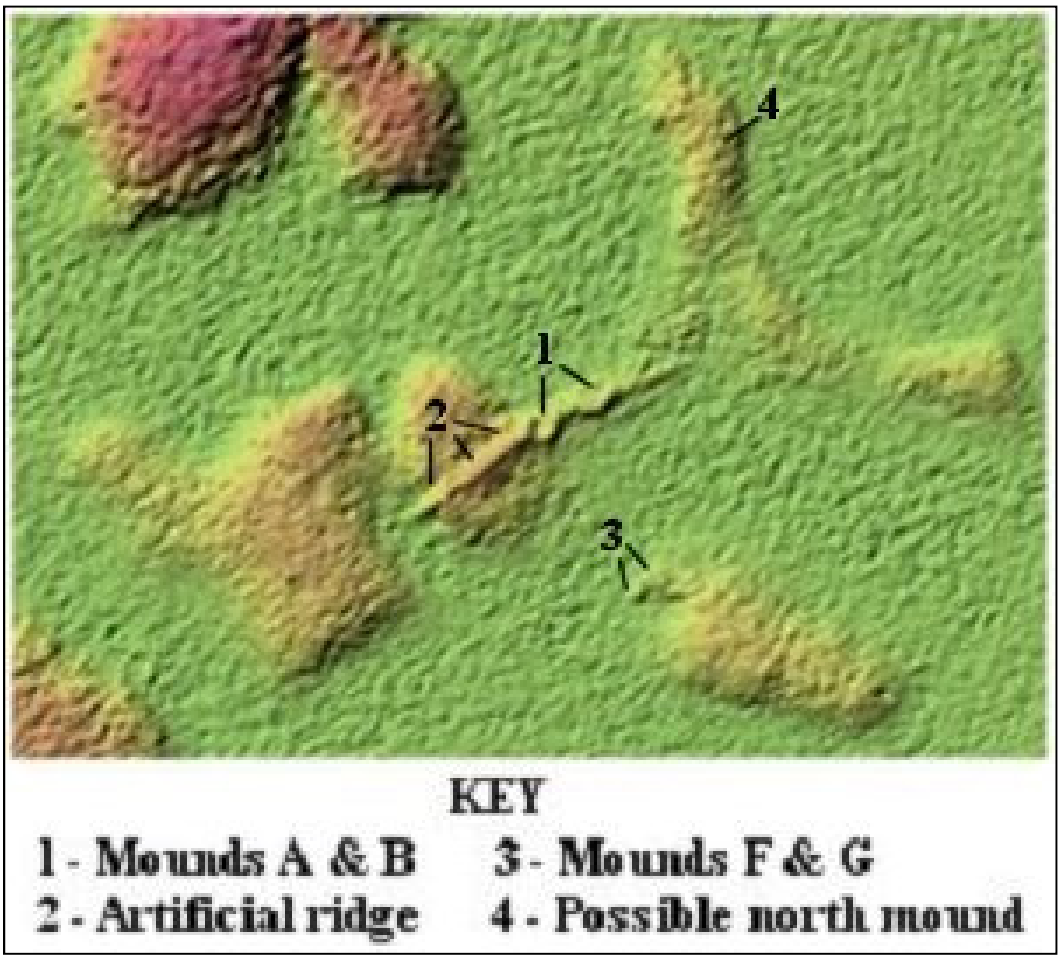


Figure 6-2. Lidar Shaded Imagery of King George Island at 2.5ft intervals. Map by Harry G. Brignac Jr.

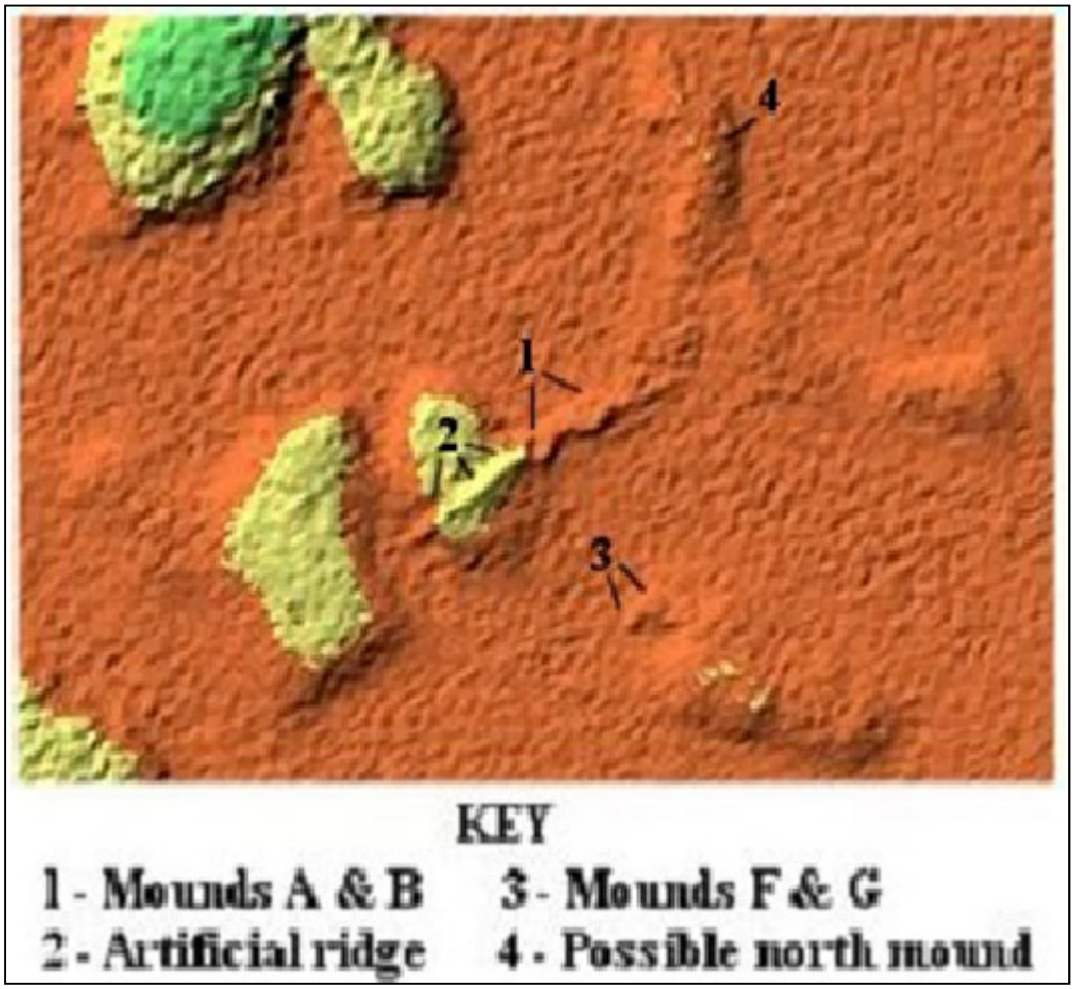


Figure 6-3. Lidar Imagery of King George Island at 5ft intervals. Map by Harry G. Brignac Jr.

METHODS

Shovel Tests

In the Fall of 2004, a grid system was laid out for subsurface excavations at 50m intervals. The 0,0 point was placed at an arbitrarily selected location near a deer feeder where we generally accessed the island from the swamp, theoretically making it relatively easier to relocate at later dates. This point was designated 0N, 0E. A baseline was laid out, extending north from the 0,0 point until it reached the swamp. Additional lines were laid out from this baseline. Flags were placed every 50m in all directions until impeded by swamp. Shovel Test

Pits (STPs) were not dug in any particular sequence. The majority of STPs were offset 10cm west of the flags except where there were trees preventing this procedure. The soil from all STPs was screened through ¼ inch mesh. Arbitrary strata designations were used for soil identification in the field. We did attempt to shoot this grid in with a Total Station, however, the file was lost and time constraints prevented another attempt.

The Shovel Test Pit grid in Figure 6-4 was georeferenced on to the map by using a GPS coordinate for Point 0,0 and using the measured distances for the remaining points for their placement. Subsurface testing began in March of 2005 with STPs dug at each interval within the grid (Figure 6-4). In April of 2006, a 1m x 2m unit (Unit 1B) was placed in Mound F. In October and November of 2006 another 1m x 2m unit (Unit 2B) was placed in Mound G. Finally, Mounds F and G were mapped with a Total Station in November of 2008.

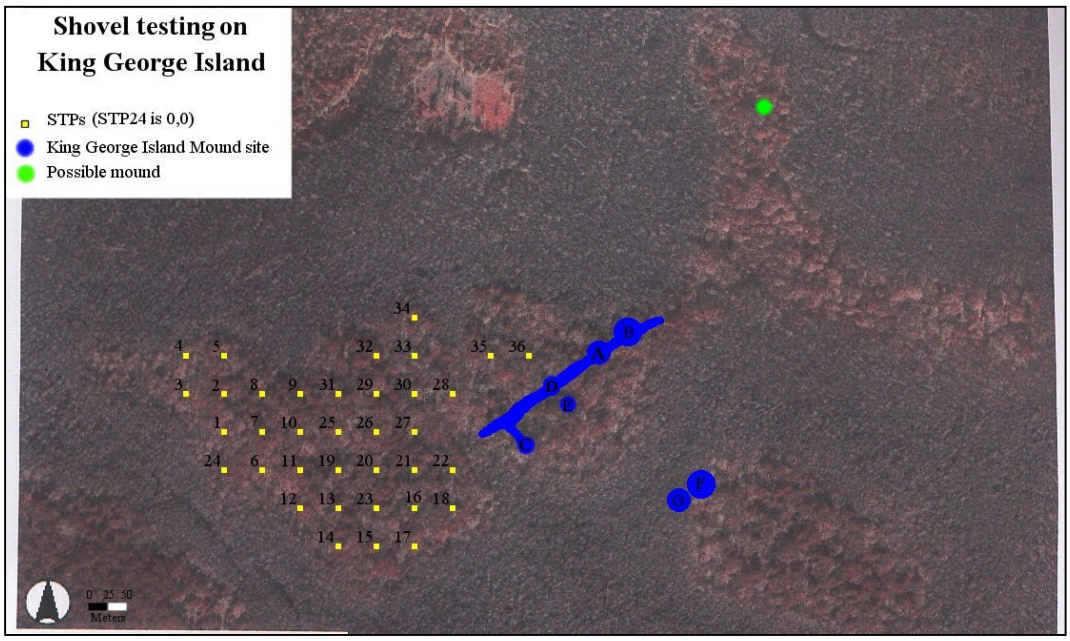


Figure 6-4. Aerial of King George Island with the Shovel Test Pit grid and site lay over. Map by Harry G. Brignac Jr.

In toto, 36 STPs were excavated in March of 2005. Arbitrary letter designations were given to each soil horizon in the field along with "PLT" for the Pleistocene terrace soils or C horizon. In the following paragraphs I will attempt to associate the soil horizons from all 36

STPs identified in Table 6-1 with their equivalent soil horizon from the Soil Survey for Livingston Parish. All soil characteristics and Munsell colors were determined by the excavator.

Each shovel test was dug down 50cmbs or until the Pleistocene terrace soils (PLT) were reached, at between 40 to 60cmbs on average. If the PLT was not reached by then, a small soil core was taken to determine the depth of the PLT. Many STPs filled up with water during their excavation depending on their location on the island and the water level of the surrounding swamp during excavations.

Figure 6-5 provides an example of what the majority of the profiles for the STPs looked like. The A horizon was designated as Stratum A and was determined to be a 7.5YR 3/2 dark brown. The soil texture was a silt loam with some clay inclusions. Every STP had a Stratum A although its thickness rarely exceeded 10cm. Stratum B was a 10YR 6/2 light brownish gray mottled with a 7.5YR 5/8 strong brown. In the field, this color was described as reddish orange clay with distinct amounts of silt and occasionally sand included. Stratum B has been determined to be a B/E horizon roughly equivalent to the 2B/E horizon observed in the Soil Survey for Livingston parish. Stratum C was 7.5YR 5/8 strong brown mottled with a 10YR 6/2 light brownish gray (the reverse of Stratum B). The soil texture was described as clay with silt included, much like Stratum B. Stratum C appears to be a B/E horizon grading into a Bt horizon and overall looks similar to the 2Bt1 horizon in the Soil Survey for the parish. It was noted in the field that Stratum B faded into Stratum C and was usually so subtle that it was hard to determine where they divided. Munsell colors were not taken on the C horizon (PLT), but it was always described as orange to red in color, which translates to a 7.5YR 5/8 strong brown. The soil texture was predominantly clay containing little, if any, silt.

A few different strata occurred in several STPs that need mention. Stratum B_2 was found in shovel tests 31 and 35, and was present in the place of Stratum B. It was described as a

Table 6-1. Stratigraphy for Shovel Test Pits.

Strata	A	B	B2	E	C	C2	D	PLT
STP# 1	0-2cm	2-75cm						
2	0-3cm	3-15cm			15-57cm			57cm->
3	0-6cm	6-21cm			21-50cm			
4	0-6cm	6-21cm			21-45cm			
5	0-5cm	5-20cm			20-64cm			
6	0-2cm	2-32cm			32-65cm			65cm->
7	0-3cm	3-29cm			29-43cm			43cm->
8	0-3cm	3-12cm			12-40cm			40cm->
9	0-7cm	7-22cm			22-45cm			45cm->
10	0-7cm	7-25cm			25-50cm			50cm->
11	0-3cm	3-25cm			25-55cm			54cm->
12	0-5cm	5-25cm			25-65cm			65cm->
13	0-3cm	3-22cm			22-52cm			52cm->
14	0-8cm	8-20cm			20-51cm			51cm->
15	0-3cm	3-25cm			25-45cm			45cm->
16	0-4cm	4-30cm			30-40cm			40cm->
17	0-3cm	3-18cm			18-55cm			55cm->
18	0-5cm	5-25cm			25-45cm			45cm->
19	0-2cm	2-18cm			18-44cm			44cm->
20	0-5cm	5-23cm			23-37cm			37cm->
21	0-9cm	9-23cm			23-40cm			40cm->
22	0-8cm	8-28cm			28-50cm			50cm->
23	0-10cm	8-28cm			28-47cm			47cm->
24	0-10cm	10-25cm				25-87cm		87cm->
25	0-4cm				25-35cm			35cm->
26	0-4cm						4-50cm	
27	0-10cm			10-20cm	20-35cm			35cm->
28	0-3cm	3-20cm			20-43cm			43cm->
29	0-4cm	4-18cm			19-48cm			
30	0-1cm	1-24cm			24-46cm			46cm->
31	0-16cm		16-30cm		30-40cm			40cm->
32	0-10cm	10-25cm			25-50cm			50cm->
33	0-9cm	9-25cm			25-39cm			39cm->
34	0-10cm	10-28cm			28-38cm			38cm->
35	0-17cm		17-40cm		40-57cm			57cm->
36	0-10cm	10-28cm			28-45cm			45cm->

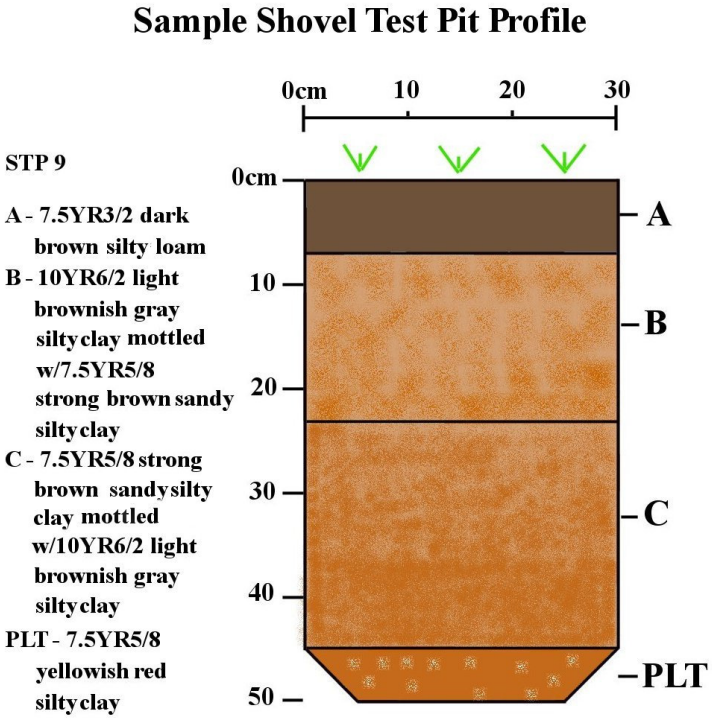


Figure 6-5. Sample Shovel Test Pit profile.

10YR5/4 yellowish brown mottled with 10YR3/4 very dark brown. The texture was silty loamy clay. Stratum C_2 was identified in only one STP (24) and took the place of Stratum C. It was a 10YR6/1 gray silty clay mottled with 7.5YR5/8 strong brown silty clay. It was noted that the clay in this stratum was hard, wet, and sticky. It should also be mentioned that when the bottom of the STP was cored 47cm to find subsoil, the C horizon was not located. All three of these shovel tests were in low wet areas, which may account for the slight color variations and may classify them as Springfield/Barbary Muck soils from the Soil Survey report for Livingston Parish.

Two more strata require mentioning. In shovel test 26, Strata B and C were not present. Instead another stratum, identified as Stratum D began 4 cmbs and continued down to 50cmbs. Stratum D was described as 7.5YR7/1 light gray silty clay mottled with 7.5YR5/8 strong brown silty clay. The last anomaly was found in STP 27, 50m east of STP 26. This shovel test contained Strata A and C, as well as a C horizon, but instead of a Stratum B, it included Stratum

E. Stratum E was 10YR5/4 yellowish brown silt and is believed to be the E horizon mentioned in the Soil Survey description for the parish. This was unlike all of the other STPs, in which Stratum B consisted mostly of clay with some silt. All STPs contained at least some ferruginous concretions, probably due to the excessive fluctuation in water table on and around the island, but none were retained for curation.

Units

Test units measuring 1x2 m were excavated on the summits of Mounds F and G (Figure 6-6). Units were numbered Unit 1 and Unit 2. To avoid confusion with similarly numbered units on the main portion of the site (now considered Area A), the landform containing these units was considered Area B, and the units were designated Unit 1B and Unit 2B. Thus, Unit 1B was placed in Mound F and Unit 2B in Mound G. Both units were excavated in arbitrary 10 cm levels. The soils in each level were described, but no strata or zones were designated.

Excavations were carried out with a shovel and trowel and mound fill was processed through ¼ inch screens. At the end of each level, a level form was filled out and a planview of the floor was drawn. Profiles of all four walls and the floor were drawn and photographed upon completion of each unit.

Unit 1B. Unit 1B was oriented northeast to southwest with a unit datum placed in the southeast corner (Figure 6-6). Unit 1B was excavated in eight 10 cm levels to a depth of 80 cmbs. Figure 6-7 shows the profiles of all four walls of the unit and should be used as reference for this section. Level 1 was described as 10YR5/4 silty clayey loam and is denoted as an A horizon. Because of the slope of the ground, only about ¾ of the unit was excavated in this level. The northern ¼ remained at ground surface. Against the West wall in the center of the unit was a rodent burrow containing strands of nylon string. The rodent burrow continued down

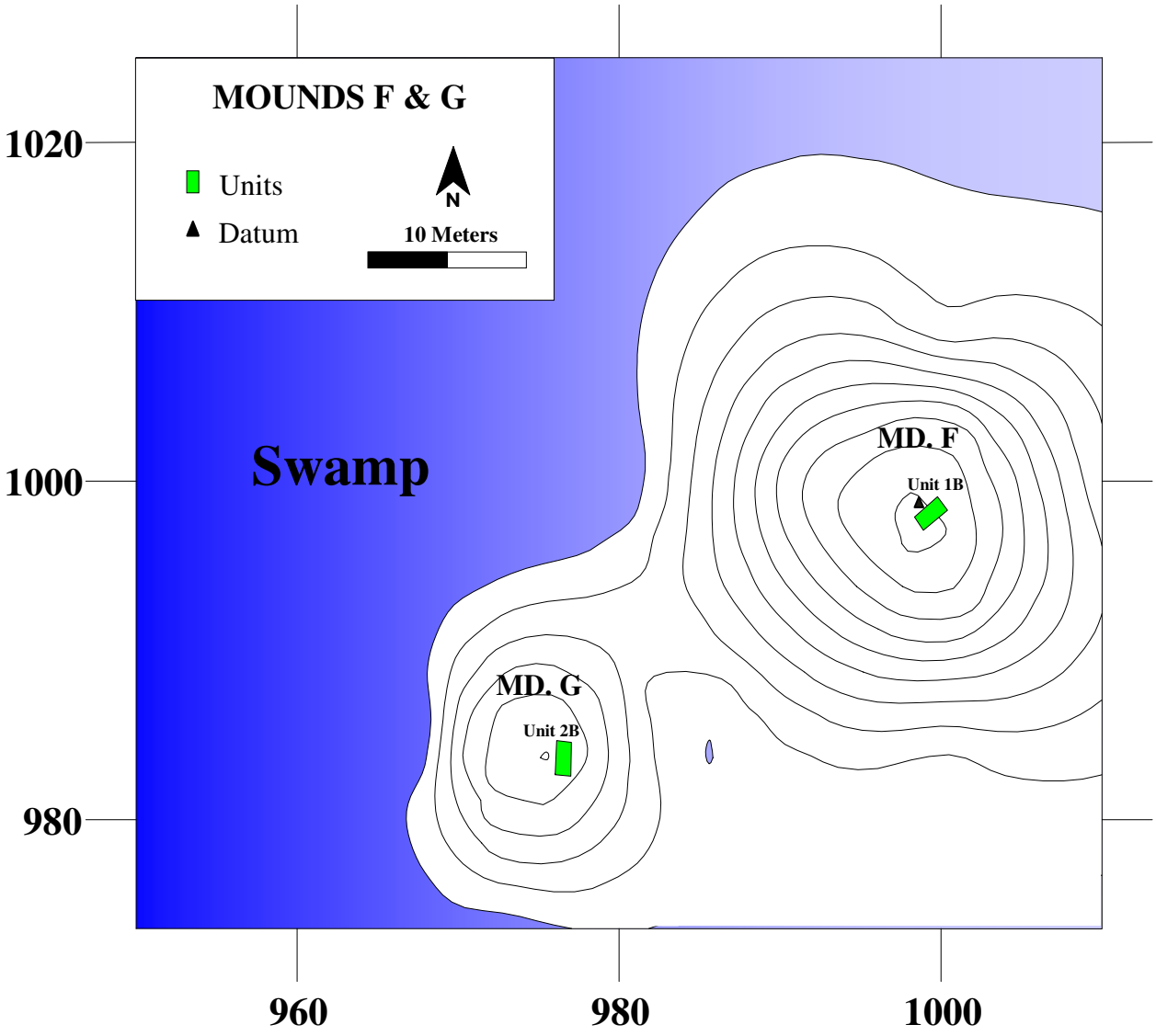


Figure 6-6. Contour map of Mounds F & G showing location of units.

into the top of Level 4. The soil within the rodent burrow was described as 7.5YR3/4 dark brown loam. It was not screened separately, but a conscious effort was made to observe what artifacts came from this area.

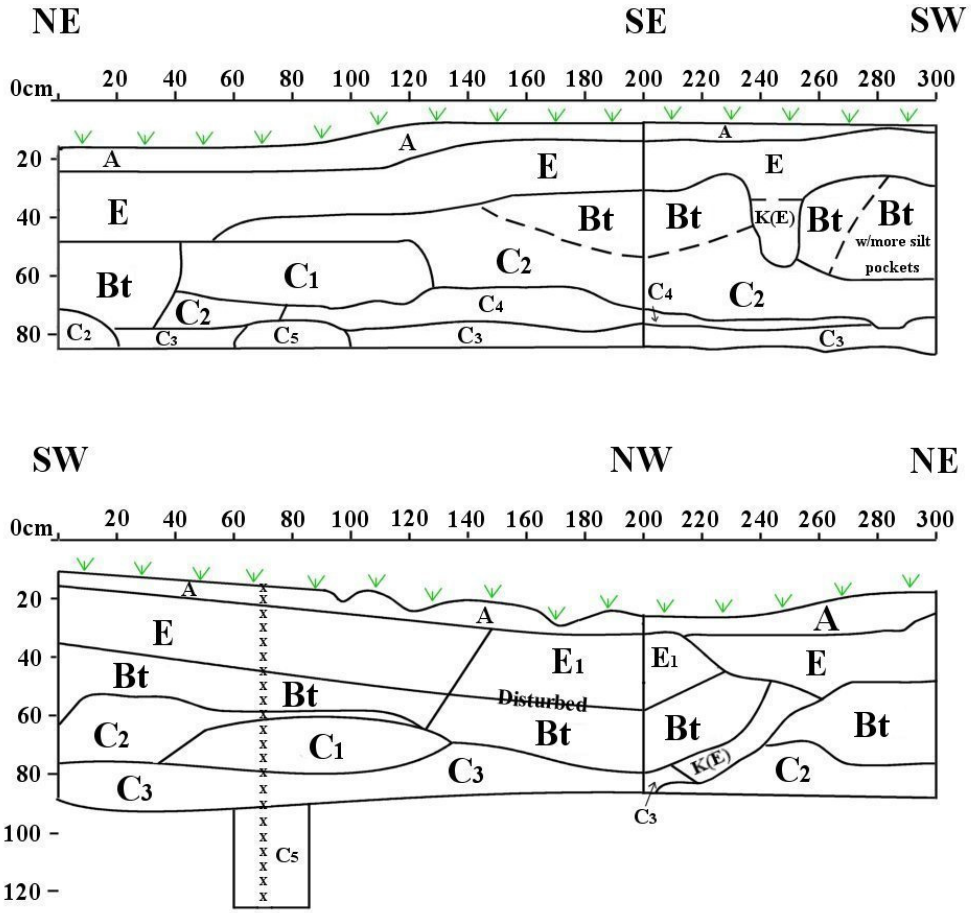
Level 2 also contained A horizon soils, while an E horizon appeared towards the base of the level. In the floor of this level, the E horizon could be seen in ¾ of the unit and what remained of the A horizon at the northern end of the unit. The rodent burrow continued until the base of this level. Level 3 was comprised mainly of an E horizon, which was described as

10YR6/4 light yellowish brown slightly clayey silt. In the northwest corner of the Unit, there was an area of this silt that was much looser and root disturbance was heavy. This is visible in the profile and was designated as E_1.

In Level 4, the E horizon ended and was replaced by a Bt horizon. The Bt horizon was described as 10YR4/4 dark yellowish brown, 10YR4/6 dark yellowish brown, and 10YR6/6 brownish yellow mixed clays, which was very compact, with pockets of looser soil of 10YR4/4 dark yellowish brown and 10YR7/2 light gray silty clay. A section of this Bt horizon, which lay under the previously mentioned E_1 area, was more homogeneous in color and texture. It was a 10YR4/4 dark yellowish brown silty clay and is believed to have been affected by the disturbance present in the E_1 area. In the North wall and in the South wall, there are two small areas labeled K(E), for krotovina, in the profiles (Figure 6-7). These were a relatively homogeneous 10YR6/4 light yellowish brown clayey silt. Because of the rodent burrow already identified in the unit and a multitude of viable burrows in the mound summit, along with the absence of any tree roots of substantial size in the unit, it is probable that these were additional animal burrows. It should also be noted that a large water moccasin, affectionately named The Muffin Man, was sighted entering and exiting several of those open dens on a regular basis. The K(E) area on the North wall protrudes down through Levels 5, 6, 7, and 8.

Level 5 contained the lower portion of the Bt horizon and a C horizon. The Bt horizon in this level also includes the disturbed Bt area underlying the E_1 area. The C horizon, which starts in this level, but continues throughout the remaining levels of the unit, is made up of large areas of slightly different soil matrixes, probably indicative of basket loading. The parent material (C_1) is described as 10YR8/4 very pale brown silty clay. It is extremely compact, hard, and very friable when dry. It also contained abundant manganese/ferruginous concretions. All subsequent sections of the C horizon contained manganese/ferruginous concretions in lesser

UNIT 1B PROFILES



Key

A – A horizon: 10YR5/4 yellowish brown silty clayey loam
E – E horizon: 10YR6/4 light yellowish brown clayey silt
E1: disturbed E
Bt – Bt horizon: 10YR4/4 dark yellowish brown, 10YR4/6 dark yellowish brown, 10YR6/6 brownish yellow mixed clay w/pockets of 10Yr4/4 dark yellowish brown and 10YR7/2 very pale brown silty clay
Bt: 10YR4/4 dark yellowish brown silty clay, homogeneous in color and texture (below disturbance)
K(E): 10YR6/4 light yellowish brown clayey silt, fairly homogeneous
C_1 – C horizon: 10YR8/4 very pale brown silty clay
C_2 – C horizon: 10YR4/6 dark yellowish brown clay w/rare areas of lighter silty clay.
C_3 – C horizon: 10YR5/4 yellowish brown, 10YR8/4 very pale brown mixed and mottled clayey silt
C_4 – C horizon: heavily mottled 10YR4/6 dark yellowish brown, 10YR8/4 very pale brown silty clay and some mixing and mottling w/2.5YR4/6-4/8 red slightly silty clay
C_5 – C horizon: pocket of larger 5YR4/6 yellowish red clay w/7.5YR4/4 brown and 10YR8/4 very pale brown silty clay mixed and mottled

Figure 6-7. Drawn profiles of all four walls of Unit 1B.

amounts.

Level 6 still contained a fair amount of the Bt horizon, but was dominated by the C horizon. Besides C_1, this level also included C_2, which is 10YR4/6 dark yellowish brown clay with rare areas of C_1. Level 7 still had some of the disturbed Bt horizon remaining, but most of the level was made up of various different basketloads of C horizon. These include C_1, C_2, C_3, C_4, and C_5. C_1 and C_2 have already been described. C_3 was characterized as 10YR5/4 yellowish brown mixed and mottled with 10YR8/4 very pale brown clayey silt. C_4 was described as heavily mottled 10YR4/6 dark yellowish brown and 10YR8/4 very pale brown silty clay mixed and mottled with 2.5YR4/6-4/8 red slightly silty clay. Lastly, C_5 was described as a pocket of larger 5YR4/6 yellowish red clay w/7.5YR4/4 brown and 10YR8/4 very pale brown silty clay mixed and mottled. Finally, Level 8 included only C_2 and C_3 soil matrixes.

In order to verify that an argillic horizon was present, a vertical column of 22 soil samples were taken at 5 cm intervals from the west wall of Unit 1B. A total of 16 were from the excavated portion of the unit and another 6 were taken from a 25cm x 25cm x 36cm hole dug into the unit floor along the same line. This "sondage" extended beneath the base of the unit down to 115cmbs and was described as C_5 soils. These soil samples were not processed because the stratigraphy in Units 1B and 2B were very similar to the stratigraphy in Units 1 and 2 in Area A. A pronounced E horizon and an argillic horizon are visible in the photograph of the west wall of Unit 1B (Figure 6-8), as is the root disturbance in the NW corner.

Unit 2B. Unit 2B was oriented north/south with the datum placed in the northeast corner (Figure 6-9). Unit 2B was excavated in six 10cm levels to a depth of 60cmbs. At this point, the unit was cut down to a 1-x-1 m square, because of time constraints and the difficulty of digging the extremely hard and compacted mound fill. The north half of the unit was taken down an

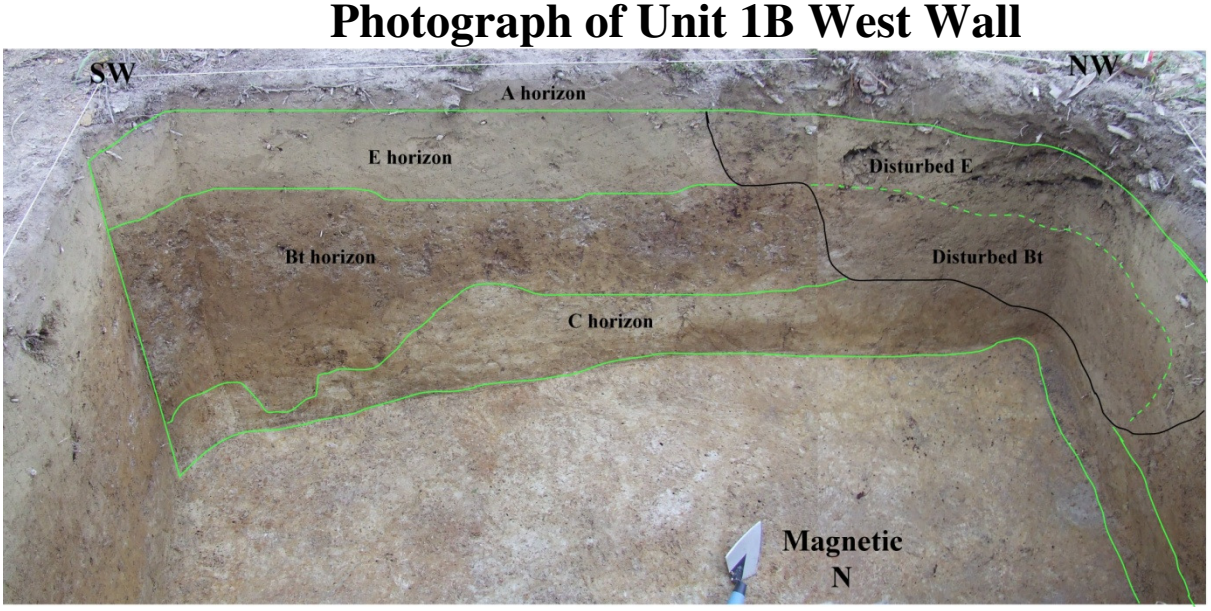
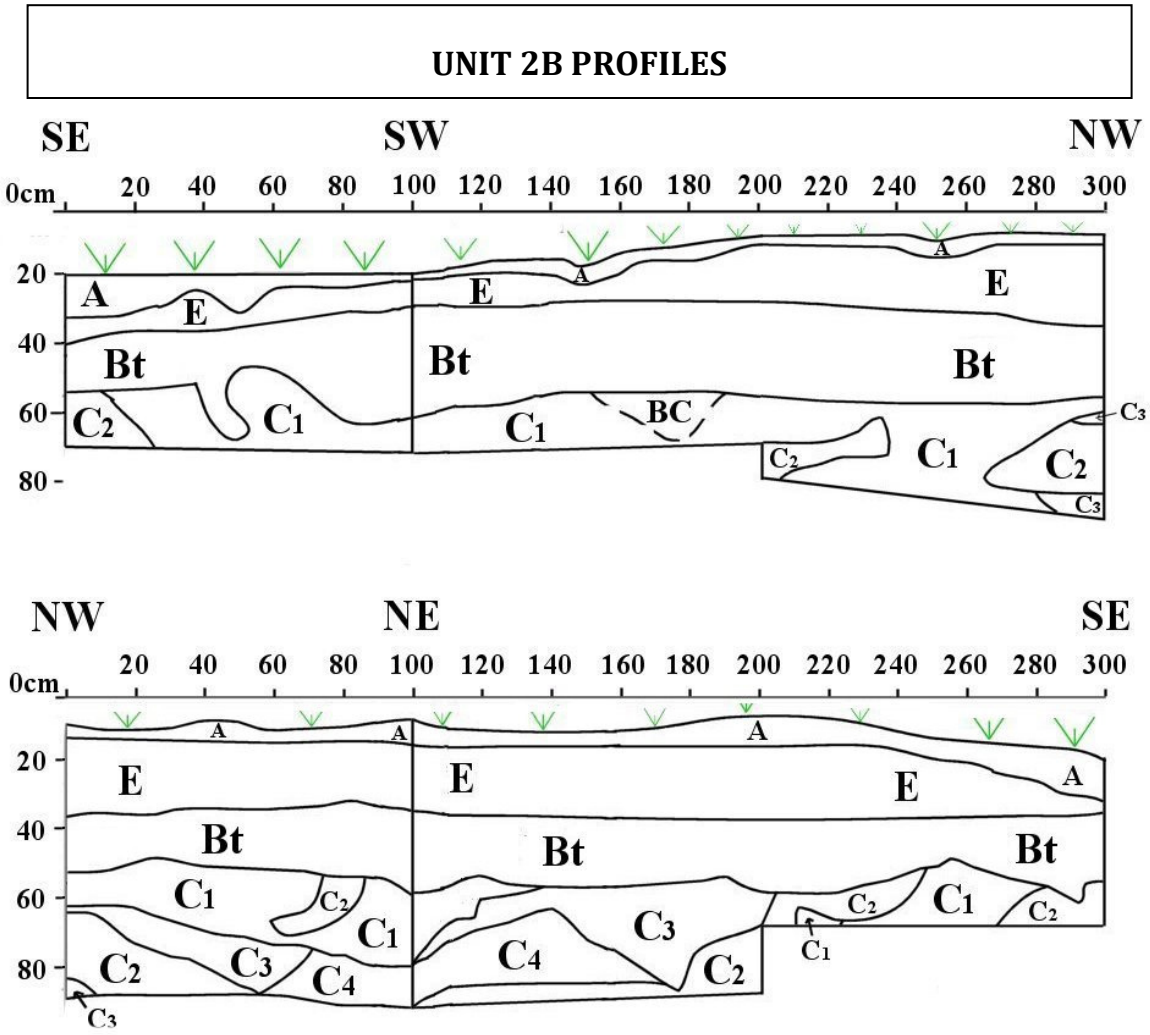


Figure 6-8. Picture of the 2 meter West wall of Unit 1B. Photograph by Harry G. Brignac Jr.

additional 2 levels down to 80cmbs (Figure 6-9).

Level 1 consisted of an A horizon, which sloped to the southeast and ultimately was no more than 13cm thick (Figure 6-9). Before the base of the level, an E horizon appeared in the northern half of the unit. Level 2 still retained an A horizon on the south end, which was on the slope of the mound summit, while the rest of the unit was comprised of the E horizon. At the base of this level, a concentration of burned clay was noticed in the southwest corner of the unit. There was no color change of the soil and no artifacts were directly associated with this area, so the concentration was viewed as natural.

The A horizon finally disappeared in the southern end of the unit towards the bottom of Level 3. A good bit of the E horizon remained, but it was shifting to the Bt horizon. Some burned clay was still present in the southwest corner, but considerably less than the previous level. Most of the burned clay was collected for further analysis. Level 4 contained only the Bt horizon. Still some burned clay continued to be found in the southwest corner of the unit. In this level, manganese/ferruginous concretions became common and were present in the same frequency throughout the rest of the excavation.



Key

A – A horizon: 10YR5/4 yellowish brown silty clayey loam
E – E horizon: 10YR6/4 light yellowish brown clayey silt
Bt – Bt horizon: 10YR4/4 dark yellowish brown, 10YR4/6 dark yellowish brown, 10YR6/6 brownish yellow mixed clay w/pockets of 10YR4/4 dark yellowish brown and 10YR7/2 very pale brown silty clay
C_1 – C horizon: 10YR8/4 very pale brown silty clay
C_2 – C horizon: 10YR4/6 dark yellowish brown clay w/rare areas of lighter silty clay.
C_3 – C horizon: 10YR5/4 yellowish brown, 10YR8/4 very pale brown mixed and mottled clayey silt
C_4 – C horizon: heavily mottled 10YR4/6 dark yellowish brown, 10YR8/4 very pale brown silty clay and some mixing and mottling w/2.5YR4/6-4/8 red slightly silty clay
BC – burned clay concentration with C_1

Figure 6-9. Drawn profiles of all four walls of Unit 2B.

Level 5 was dominated by the Bt horizon just like Level 4, but the C horizon began to appear at the base of the level. The Bt horizon disappeared completely within the first centimeters of Level 6, which was then all C horizon—the unaltered mound fill. As for Unit 1B, different colors and textures of the parent material were recognized and given subscripts. C_1, C_2, and C_3 were present in Level 6, and C_2, C_3, and C_4 in Levels 7 and 8.

By the base of Level 6, the burned clay in the southwest corner of the unit had disappeared, but another, denser pocket appeared near the center of the west side of the unit. There did not appear to be any change of soil color or matrix of any sort associated with the pocket either. As one can see in Figure 6-10, it was just a large concentration of burned clay within the C_1 parent material dominating the center of this level. Because only the north half of the unit was taken down any further, it cannot be known how deep that deposit went. The large amount of burned clay recovered from every level of this unit and the fact that there was no soil change prompted me to just note and move on with excavations. In hindsight, it would have been more effective to have taken the south half of the unit down instead, in hopes of bisecting this possible feature. All four walls of the unit were photographed, but the picture of the West wall did not turn out well enough to make out this anomaly. Figure 6-11 is a photograph of the East wall which shows the pedestaled north half as well as the stratigraphy of Unit 2B.

SUMMARY

The King George Island Mounds site was originally recorded as consisting of two conical mounds. Recent work has revealed the presence of three additional mounds along with two artificial ridges connecting four of the five total mounds in Area A. In addition, another two conical mounds, located on a separate terrace remnant south of the site, of roughly equal size to the original two, was disclosed by a local resident. Part of this research was undertaken to

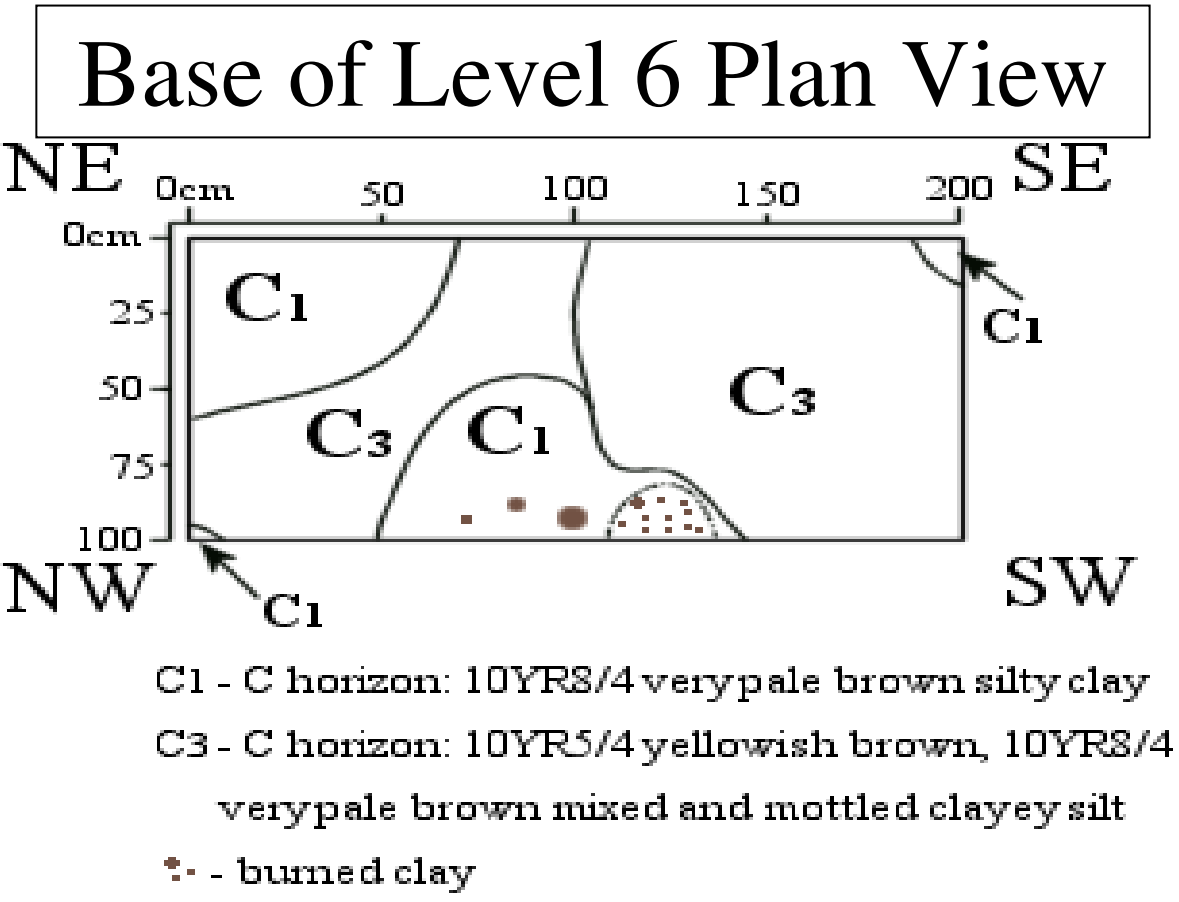


Figure 6-10. Plan view of the base of Level 6 of Unit 2B.

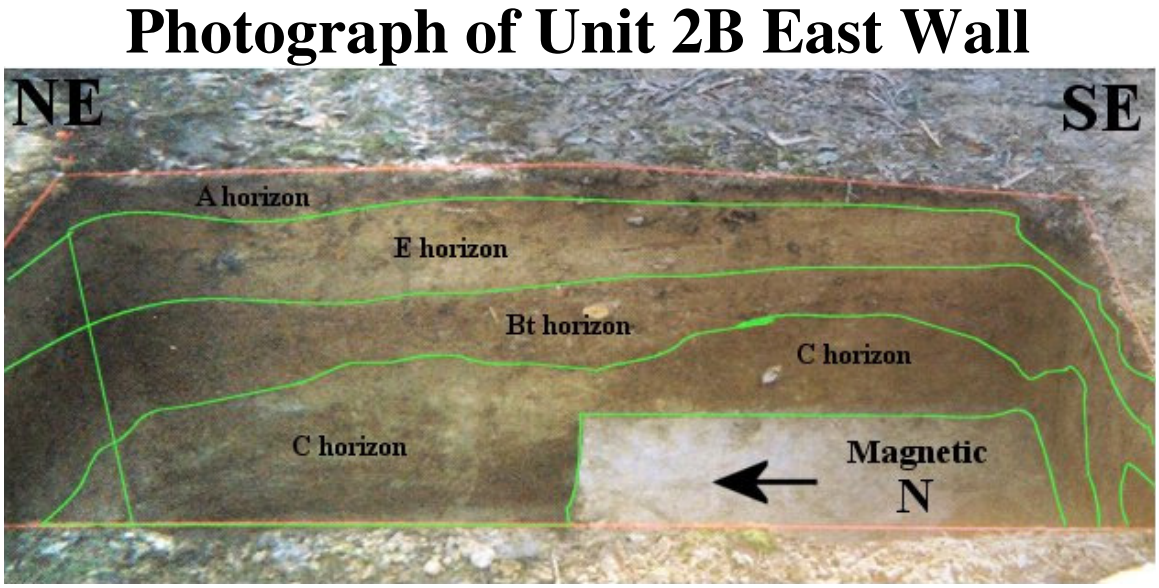


Figure 6-11. Picture of 2 meter East wall of Unit 2B. Photograph by Harry G. Brignac Jr.

determine whether these mounds were related to the mounds in Area A. Though neither Mound F nor Mound G was excavated down to the original ground surface, the pedogenic processes exposed in the upper part of the mound suggest a Late Archaic construction relative to the rest of the site.

In this paragraph, I will discuss the soil formation in Mounds F and G as they compare to Mounds A and B, in order to show the relationship between Areas B and A of the King George Island Mounds site. The E horizon appears at 5 cmbs in all four mounds discussed here, but the thickness of this natural stratum varies a little. In Mounds A and B of Area A, the E horizon is 30 cm thick. In Mound G of Area B, the E horizon is only 25 cm thick, whereas, in Mound F it is 35 cm thick. The thickness of the E horizon in all four mound units is within 10 cm of each other. The Bt horizon shows much more discrepancy between the areas. In Mounds A and B, the Bt horizon is 40 cm thick and they begin and end at relatively the same depths. In Mound F, the Bt horizon is 30 cm thick, but because of the slope of the unit from south to north, the beginning and ending depths vary greatly from one end of the unit to the other (Figure 6-7). In Mound G, the Bt horizon is no more than 25 cm thick at its maximum points and because of the E horizon also being thinner in this unit, the ending depth for the Bt horizon is 45 cm below surface (Figure 6-9). This means that the thickness of the Bt horizon in Mounds F and G are within 5 cm of each other, but they are at least 10 cm thinner than in Mounds A and B. In the mounds in Areas A and B, the breadths of each horizon are relatively close and display similar soil development.

CHAPTER 7
ARTIFACT ANALYSIS

A total of 294 artifacts and ecofacts was recovered during this research on the King George Island Mounds site. There were 144 total prehistoric artifacts accounting for 49% of the assemblage retrieved from the site (Table 7-1). These included pottery, lithics, and Baked Clay Objects. Only three historic artifacts were found during excavations. Two of these were pieces of nylon string found stuffed into a rodent burrow in Unit 1B. The other was a .22 cal. lead rifle bullet discovered in Level 3 of Unit 1B. The remaining 11 ecofacts retained were naturally occurring materials. All artifacts came from mound units 1B and 2B. All shovel test pits were devoid of artifacts. Tables 7-2 and 7-3 show the provenience for all recovered materials and will be referenced throughout this chapter.

Table 7-1. Total Artifacts from Excavations

Material	Count	%	Weight (g)	%
Pottery	113	38.4%	236.6	33.4%
Flake	10	3.4%	3.0	0.4%
PPK	1	0.3%	6.2	0.9%
Lithic shatter	10	3.4%	7.6	1.1%
Baked Clay Objects	7	2.4%	136.9	19.3%
Prehistoric constr. mat.	2	0.7%	111.1	15.7%
Crinoid stem	1	0.3%	0.2	0.0%
Subtotal	144	49.0%	501.6	70.7%
Burned clay*	136	46.3%	179.4	25.3%
.22 cal. Lead rifle bullet	1	0.3%	2.4	0.3%
Nylon string	2	0.7%	9.7	1.4%
Pebble	4	1.4%	1.5	0.2%
Quartzite pebble	2	0.7%	1.2	0.2%
Water worn rock	1	0.3%	0.4	0.1%
Chert gravel	1	0.3%	7.8	1.1%
UID lithic	3	1.0%	5.2	0.7%
TOTAL	294	100.0%	709.2	100.0%
*Not all burnt clay was kept from Unit 2B				

Table 7-2. Unit 1B Artifacts.

LEVEL	1				2				3				4			
Artifacts	**#**	**%**	**g**	**%**	**#**	**%**	**g**	**%**	**#**	**%**	**g**	**%**	**#**	**%**	**G**	**%**
Decorated body sherds	1	3.4	2.9	5.6	2	1.4	16.0	4.4	0	0	0	0	2	10.5	7.7	23.2
Plain body sherds	15	51.7	17.6	34.1	31	21.8	62.0	17.2	15	37.5	22.6	36.2	12	63.2	12.4	37.3
Plain rims sherds	3	10.3	4.8	9.3	4	2.8	39.2	10.9	0	0	0	0	0	0	0	0
Plain base sherds	0	0	0	0	1	0.7	5.2	1.4	1	2.5	11.0	17.6	1	5.3	3.0	9.0
Pottery(Subtotal)	**19**	**65.5**	**25.3**	**49.0**	**38**	**26.8**	**122.4**	**34.0**	**16**	**40**	**33.6**	**53.8**	**15**	**78.9**	**23.1**	**69.6**
Tertiary flake	2	6.9	0.8	1.6	2	1.4	0.7	0.2	3	7.5	0.9	1.4	0	0	0	0
PPK (Kent)	0	0	0	0	0	0	0	0	1	2.5	6.2	9.9	0	0	0	0
Lithic shatter	0	0	0	0	3	2.1	1.1	0.3	6	15.0	5.1	8.2	1	5.3	1.4	4.2
Crinoid stem	0	0	0	0	0	0	0	0	1	2.5	0.2	0.3	0	0	0	0
Baked Clay Objects	0	0	0	0	5	3.5	51.8	14.4	0	0	0	0	0	0	0	0
Prehistoric constr. mat.	0	0	0	0	2	1.4	111.1	30.8	0	0	0	0	0	0	0	0
Burnt clay	8	27.6	25.5	49.4	88	62.0	71.7	19.9	8	20.0	8.1	13.0	0	0	0	0
Chert gravel	0	0	0	0	0	0	0	0	0	0	0	0	1	5.3	7.8	23.5
Pebble	0	0	0	0	3	2.1	1.0	0.3	1	2.5	0.5	0.8	0	0	0	0
Quartzite pebble	0	0	0	0	0	0	0	0	1	2.5	0.8	1.3	1	5.3	0.4	1.2
Water worn rock	0	0	0	0	0	0	0	0	1	2.5	0.4	0.6	0	0	0	0
UID lithic	0	0	0	0	1	0.7	0.5	0.1	1	2.5	4.2	6.7	1	5.3	0.5	1.5
.22 cal. Lead rifle bullet	0	0	0	0	0	0	0	0	1	2.5	2.4	3.8	0	0	0	0
TOTAL	**29**	**100.0**	**51.6**	**100.0**	**142**	**100.0**	**360.3**	**100.0**	**40**	**100.0**	**62.4**	**100.0**	**19**	**100.0**	**33.2**	**100.0**

LEVEL	5				6				7				8			
Artifacts	**#**	**%**	**g**	**%**	**#**	**%**	**g**	**%**	**#**	**%**	**g**	**%**	**#**	**%**	**g**	**%**
Decorated body sherds	1	5.3	3.9	14.9	0	0	0	0	0	0	0	0	0	0	0	0
Plain body sherds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plain rims sherds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plain base sherds	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pottery(Subtotal)	**1**	**5.3**	**3.9**	**14.9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Tertiary flake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PPK (Kent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lithic shatter	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crinoid stem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Baked Clay Objects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Prehistoric constr. mat.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burnt clay	18	94.7	22.2	85.1	8	100.0	5.3	100.0	0	0	0	0	0	0	0	0
Chert gravel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pebble	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quartzite pebble	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Water worn rock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UID lithic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
.22 cal. Lead rifle bullet	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	**19**	**100.0**	**26.1**	**100.0**	**8**	**100.0**	**5.3**	**100.0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
*Nylon string found in rodent burrow in 1B L1 & L2 (9.7g)																

Table 7-3. Unit 2B Artifacts.

LEVEL	1				2				3				4			
Artifacts	**#**	**%**	**g**	**%**	**#**	**%**	**g**	**%**	**#**	**%**	**g**	**%**	**#**	**%**	**g**	**%**
Pottery(Plain)	0	0	0	0	24	77.4	28.3	22.9	0	0.0	0	0	0	0	0	0
Baked Clay Objects	0	0	0	0	2	6.5	85.1	68.9	0	0.0	0	0	0	0	0	0
Burnt clay*	0	0	0	0	2	6.5	9.5	7.7	4	100.0	37.1	100.0	N/A	N/A	N/A	N/A
Tertiary flake	0	0	0	0	3	9.7	0.6	0.5	0	0.0	0	0	0	0	0	0
TOTAL	0	0	0	0	31	100.0	123.5	100.0	4	100.0	37.1	100.0	0	0	0	0

LEVEL	5				6				7				8			
Artifacts	**#**	**%**	**g**	**%**	**#**	**%**	**g**	**%**	**#**	**%**	**g**	**%**	**#**	**%**	**g**	**%**
Pottery(Plain)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Baked Clay Objects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burnt clay*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tertiary flake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*Not all burnt clay was kept from L2 & L3 and none were kept from L4, L5, L6, L7, & L8.																

LITHIC ARTIFACTS

The majority of lithics were produced from citronelle gravel, available in outwash deposits along the Middle Amite River. The closest known source for this material is located along the Amite River about eighteen miles north of Denham Springs, Louisiana (Gagliano 1963). One flake from Level 1 of Unit 1B and all of the shatter recovered were of unidentified lithic materials.

Seven of the ten flakes, the one projectile point, and all lithic shatter came from Unit 1B (Table 7-2). All Unit 1B flakes were found in the first three levels, while the projectile point was found in Level 3. All lithic shatter was recovered from Levels 2, 3, and 4. Unit 2B produced only three flakes and all three came from Level 2 (Table 7-3). Those were the only lithic artifacts discovered in Unit 2B.

Flakes were sorted by the relative amount of cortex present. Primary flakes were defined as containing more than 50% cortex, secondary flakes were defined as having 11-49% cortex, and tertiary flakes contained 10% or less cortex. All ten flakes recovered during this project were classified as tertiary flakes. Heat treatment was observed on only one flake found in Level 1 of Unit 1B.

The only lithic tool recovered during excavations was one stemmed dart point, made on local citronelle gravel chert, found in Level 3 of Unit 1B. This point has been classified as a Kent point, which is most commonly attributed to Late Archaic, but continued to be made into the Tchula period. Webb (2000) describes Kent points as follows: “a slender point, often poorly made, of local materials like tan or yellow chert. The body is crudely triangular, often asymmetrical, with straight to convex edges, weak to right angle shoulders, infrequent asymmetrical barbs, and crudely rectangular stems.” Dimension ranges are 3.5 to 7.5 cm in

length and 1.5 to 3 cm wide (Webb 2000). Kents are relatively narrow and thick (8 mm - 12 mm) (McGahey 2000).

The dimensions for the example from Unit 1B (length 42.8 mm, width 18.7 mm, thickness 7.3 mm) fall within the expected size ranges for Louisiana, except for the thickness. This example is 7.3 mm thick, but this relatively thin measurement is likely due to the fact that it was produced from a thin, flattened river cobble. The shape of the cobble is apparent because cortex remains on both sides of the blade along the shaft and on the base (Figure 7-1). This is a common occurrence among Kent points according to McGahey (2000). The distal end of this specimen appears to have been retouched on both sides of the tip as well, which has changed the triangular shape of the entire point. The point shows no signs of being heat treated.

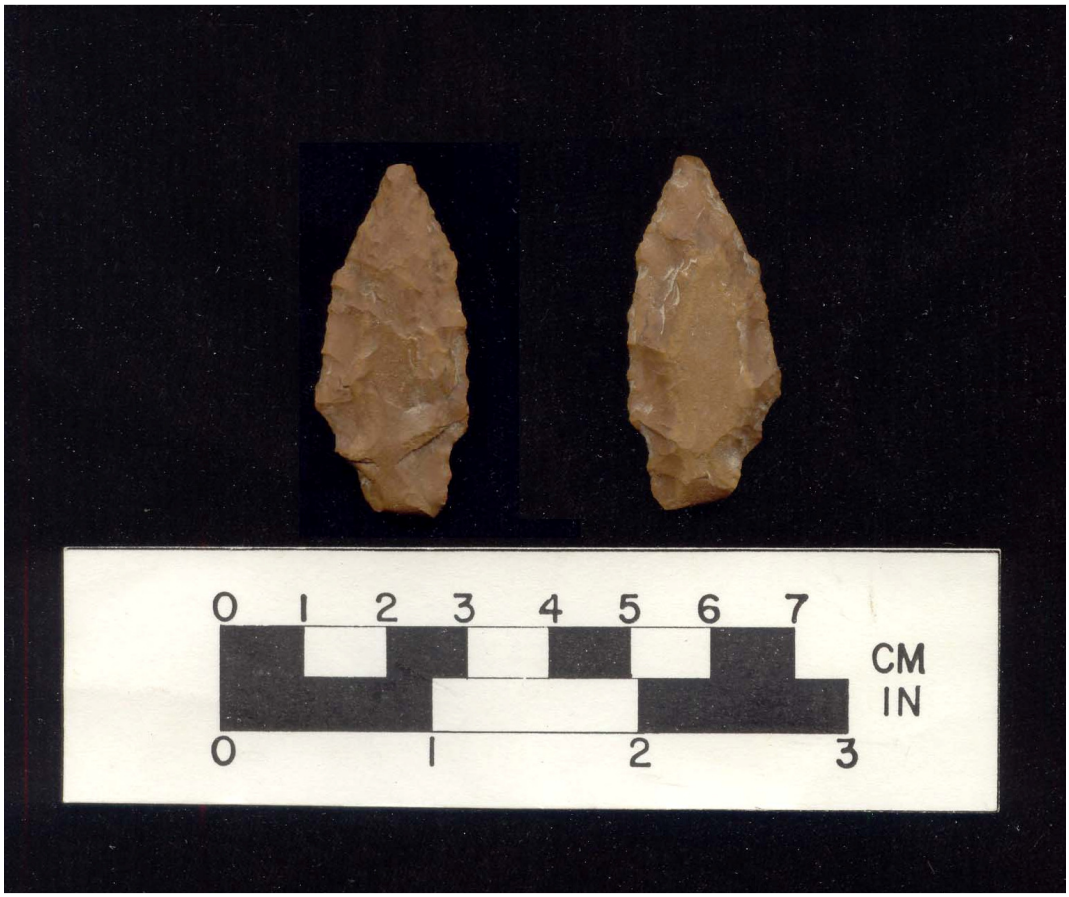


Figure 7-1. Obverse and Reverse of the Projectile point from Unit 1B Level 3; note cortex on both sides along the shaft and on the base. Photograph by Harry G. Brignac Jr.

POTTERY

A total of 113 (236.6g) sherds were found during in the Area B fieldwork (Table 7-1). Forty-six (26.4g) of these were smaller than 1 square cm and only were counted and weighed (these were coded as 'LESS' meaning less than 1 cm square; Appendix A contains all codes used during the artifact analysis). The remaining 67 sherds were classified if possible and properties of their pastes were recorded.

Pottery was coded first to Class: body, rim, or base. Type and Variety were coded as indicated in Appendix B. Most of the pottery was plain (PL). For each sherd, the Vessel form, Class description, and Treatment were determined. To establish the friability of the sherd, a number system was used. The number 1 was used for hard, 2 for medium, and 3 for soft. Color was taken on three separate areas of the sherd: Interior and exterior; the core color was also recorded. The Munsell Soil Color Charts book was used for this section.

Each rim sherd received further description under the Rim Characteristics. This included the rim form, rim treatment, and the lip treatment. The rim form was described as being straight (ST), beveled to the interior (BI), or beveled to the exterior (BE). The rim treatment determined whether the rim thickened (TH) or thinned (TI) towards the top. This category also included the unidentified bases (UB). The lip treatment described the top of the rim as being either rounded (RO) or flattened (FL).

Temper (or inclusions, since it is unclear that the sand was a true temper) was given the most attention. All sherds contained grog and sand. A number system was used to determine how much of each was represented in a sherd (GR1 & SN). The number 1 was used for a light amount, 2 for medium amount, and 3 for heavy amount. For the grog, the size of the pieces included were also discussed and designated with a number system (GR2). Number 1 was used for small, 2 for medium, and 3 for larger sized inclusions.

A total of six decorated pottery sherds came from Unit 1B. Level 1 contained one Coles Creek Incised var. *Unspecified* sherd. Levels 2 and 4 yielded two Pontchartrain Check Stamped var. *Pontchartrain* sherds each and Level 5 had one. The two sherds from Level 2, which crossmend, are shown in Figure 7-2. No decorated pottery was found in Unit 2B.

There were seven plain rims and three bases found, all Unit 1B. All rims were from Levels 1 and 2, while the bases were less concentrated, with one in each of Levels 2, 3, and 4. Figure 7-3 shows the basal sherd from Level 2 to demonstrate the outslanting shape characteristic of all bases recovered. The only rim of interest came from Level 2 and crossmends with a body sherd, also from Level 2 (Figure 7-4). The rim thickened greatly before reaching the lip, where it is then beveled to the exterior. It is the thickest sherd in the collection. The most intriguing aspect of this sherd is the large incised lines which appear on the interior of the sherd and continue into the crossmended body sherd. According to Richard Weinstein of Coastal Environments Inc., these lines were not intentional decoration, but had come from a poor job of smoothing the interior before firing.

Figure 7-2. Pontchartrain Checked Stamped pottery sherd. Photograph by Harry G. Brignac Jr.

Figure 7-3. Base sherd. Photograph by Harry G. Brignac Jr.

Figure 7-4. Rim sherd. Photograph by Harry G. Brignac Jr.

A total of 51 (45%) of the sherds was plain body sherds which were not further classified as to type. Information on paste characteristics of these sherds follows. The paste analysis was done on the 67 sherds (59% of the total sherds) over 1cm square in size (Table 7-4). All pottery sherds contained a 'medium' amount of sand in the paste. All but two sherds had at least a medium amount of grog included in the temper, most included a heavy amount. The size of the grog inclusions varied evenly throughout the collection. About a ¼ included small and medium sized grog, about another ¼ included small, medium, and large sized grog, and the remaining almost ½ had only large size grog. Pottery colors were variable.

BURNED CLAY

A total of 145 (427.4g) pieces of burned clay was kept from Units 1B and 2B accounting for 49.4% of the total artifacts recovered. Nine of these pieces are suspected to be cultural, seven from Level 2 of Unit 1B and 2 from Level 2 of Unit 2B, accounting for 58% of the total weight of all burned clay. Much of the burned clay is very friable; in fact, each artifact bag has at least some reduced sediment collecting at the bottom as the burned clay crumbles away. Most of the larger fragments show signs of deoxidization on no more than one side. During excavations, it

Table 7-4. Pottery Analysis.

PROVENIENCE	MAT	CLASS	TYPE	VAR	F1	F2	R1	R2	R3	GR1	GR2	SN	C2	C3
1B Level 1 (0-10cmbs)	POTT	RIMM	PL			UN	ST, BI	TI	RO	3	1,2	2		3
1B Level 1 (0-10cmbs)	POTT	BODY	COLS	UNSP						3	1,2	2		3
1B Level 1 (0-10cmbs)	POTT	BODY	LESS											
1B Level 1 (0-10cmbs)	POTT	BODY	PL							2	1,2	2	ER	2
1B Level 1 (0-10cmbs)	POTT	BODY	PL							3	3	2		3
1B Level 1 (0-10cmbs)	POTT	BODY	PL							2	1,2,3	2		2
1B Level 1 (0-10cmbs)	POTT	BODY	PL							3	3	2	ER	3
1B Level 2 (10-20cmbs)	POTT	BODY	PNTR	PNTR						3	1,2,3	2	ER	3
1B Level 2 (10-20cmbs)	POTT	RIMM	PL		BJ	UN	ST, BE	TH	RO	3	3	2	ER	3
1B Level 2 (10-20cmbs)	POTT	BODY	PL							2	1,2	2	ER	2
1B Level 2 (10-20cmbs)	POTT	BASE	PL		BJ	CU		UB		3	3	2		1
1B Level 2 (10-20cmbs)	POTT	BODY	PL							3	3	2		1
1B Level 2 (10-20cmbs)	POTT	BODY	LESS											
1B Level 2 (10-20cmbs)	POTT	BODY	PL							1	3	2	ER	3
1B Level 2 (10-20cmbs)	POTT	BODY	PL							2	1,2	2	ER	3
1B Level 2 (10-20cmbs)	POTT	BODY	PL							3	3	2		3
1B Level 2 (10-20cmbs)	POTT	BODY	PL							3	1,2,3	2	ER	3
1B Level 2 (10-20cmbs)	POTT	BODY	PL							3	3	2	ER	3

PROVENIENCE	Int	Center	Ext	CNT	WGT	COMMENTS
1B Level 1 (0-10cmbs)	10YR5/3	10YR3/1	10YR3/1	3	4.8	
1B Level 1 (0-10cmbs)	10YR5/2,7.5YR5/8	10YR4/1	10YR4/1	1	2.9	
1B Level 1 (0-10cmbs)				7	2.4	
1B Level 1 (0-10cmbs)	10YR6/3	10YR3/1	10YR6/3	2	4.7	
1B Level 1 (0-10cmbs)	10YR5/3	10YR3/1	10YR3/1	2	2.7	Crossmend
1B Level 1 (0-10cmbs)	10YR4/1	10YR4/1	7.5YR6/6	3	3.6	
1B Level 1 (0-10cmbs)	10YR5/4	10YR5/1	10YR5/3	1	4.2	
1B Level 2 (10-20cmbs)	7.5YR5/4	10YR3/1	10YR3/1,7.5YR5/6	2	16.0	
1B Level 2 (10-20cmbs)	10YR5/3	10YR3/1	10YR5/3	1	25.1	One rim crossmended to one body, deep vertical incisions on inside of both sherds believed to be accidental from interior smoothing of vessel
1B Level 2 (10-20cmbs)	10YR4/1	10YR3/1	10YR5/3	1	10.3	One body crossmended to one rim
1B Level 2 (10-20cmbs)	10YR3/1	10YR3/1	10YR5/4	1	5.2	One base crossmended to one body
1B Level 2 (10-20cmbs)	10YR3/1	10YR3/1	10YR5/4	1	5.1	One body crossmended to one base
1B Level 2 (10-20cmbs)				17	14.5	
1B Level 2 (10-20cmbs)	10YR6/4,7.5YR5/6	10YR6/4	10YR6/4	1	3.4	
1B Level 2 (10-20cmbs)	10YR6/4	10YR4/1	10YR6/4	2	4.9	
1B Level 2 (10-20cmbs)	7.5YR5/4	10YR4/1	10YR4/1	2	7.3	
1B Level 2 (10-20cmbs)	10YR6/6	10YR4/1	7.5YR5/6	3	8.5	
1B Level 2 (10-20cmbs)	10YR5/3,7.5YR5/6	10YR4/1	7.5YR5/6,10YR5/3	2	4.7	

PROVENIENCE	MAT	CLASS	TYPE	VAR	F1	F2	R1	R2	R3	GR1	GR2	SN	C2	C3
1B Level 2 (10-20cmbs)	POTT	BODY	PL							3	3	2	ER	1
1B Level 2 (10-20cmbs)	POTT	RIMM	PL		BL	UN, OU	ST	TH	FL	2	1,2	2	ER	2
1B Level 2 (10-20cmbs)	POTT	RIMM	PL			UN	ST, BI		RO	3	1,2,3	2		3
1B Level 3 (20-30cmbs)	POTT	BASE	PL		BW	CU		UB		3	3	2	ER	1
1B Level 3 (20-30cmbs)	POTT	BODY	LESS											
1B Level 3 (20-30cmbs)	POTT	BODY	PL							1	3	2	ER	3
1B Level 3 (20-30cmbs)	POTT	BODY	PL							2	1,2	2	ER	2
1B Level 3 (20-30cmbs)	POTT	BODY	PL							2	1,2	2	ER	3
1B Level 3 (20-30cmbs)	POTT	BODY	PL							2	1,2	2	ER	2
1B Level 4 (30-40cmbs)	POTT	BODY	LESS											
1B Level 4 (30-40cmbs)	POTT	BASE	PL		BJ	CU		UB		3	3	2	ER	1
1B Level 4 (30-40cmbs)	POTT	BODY	PNTR	PNTR						3	1,2,3	2	ER	3
1B Level 4 (30-40cmbs)	POTT	BODY	PL							3	1,2,3	2	ER	3
1B Level 4 (30-40cmbs)	POTT	BODY	PNTR	PNTR						3	1,2,3	2	ER	3
1B Level 5 (40-50cmbs)	POTT	BODY	PNTR	PNTR						3	1,2,3	2	ER	3
2B Level 2 (10-20cmbs)	POTT	BODY	PL							3	1,2,3	2	ER	3
2B Level 2 (10-20cmbs)	POTT	BODY	PL							3	3	2	ER	1
2B Level 2 (10-20cmbs)	POTT	BODY	PL							3	3	2	ER	1
2B Level 2 (10-20cmbs)	POTT	BODY	PL							3	3	2	ER	1
2B Level 2 (10-20cmbs)	POTT	BODY	LESS											

PROVENIENCE	Int	Center	Ext	CNT	WGT	COMMENTS
1B Level 2 (10-20cmbs)	10YR7/6	10YR7/6	10YR7/6	2	3.1	Crossmend, (same)
1B Level 2 (10-20cmbs)	10YR5/4	10YR4/1	10YR5/4	2	13.5	Crossmend
1B Level 2 (10-20cmbs)	10YR3/1	10YR3/1	10YR3/1	1	0.6	
1B Level 3 (20-30cmbs)	10YR7/6	10YR7/6	7.5YR5/6,10YR7/6	1	11.0	(same)
1B Level 3 (20-30cmbs)				6	3.9	
1B Level 3 (20-30cmbs)	10YR6/4	10YR6/4	10YR6/4	1	1.4	
1B Level 3 (20-30cmbs)	10YR6/3	10YR5/1	10YR6/3	1	1.3	
1B Level 3 (20-30cmbs)	10YR4/1,7.5YR5/6	10YR4/1	7.5YR6/6	1	4.2	
1B Level 3 (20-30cmbs)	10YR4/1	10YR4/1	10YR6/4,7.5YR5/6	6	11.8	
1B Level 4 (30-40cmbs)				7	3.7	
1B Level 4 (30-40cmbs)	10YR5/2	10YR3/1	10YR7/6	1	3.0	(same)
1B Level 4 (30-40cmbs)	10YR5/3	10YR3/1	10YR6/6	1	5.6	
1B Level 4 (30-40cmbs)	10YR4/1	10YR4/1	10YR4/1,7.5YR5/6	5	8.7	Two crossmended
1B Level 4 (30-40cmbs)	10YR4/1	10YR4/1	10YR4/1	1	2.1	
1B Level 5 (40-50cmbs)	10YR6/3	10YR4/1	10YR6/3	1	3.9	
2B Level 2 (10-20cmbs)	10YR4/2,7.5YR4/4	10YR4/1	10YR4/2,7.5YR4/4	2	4.9	Crossmend
2B Level 2 (10-20cmbs)	10YR7/6	10YR7/6	10YR7/6	8	11.6	Two crossmended
2B Level 2 (10-20cmbs)	10YR5/4,7.5YR5/6	10YR7/6	7.5YR4/4	4	7.1	Two sets of two connect
2B Level 2 (10-20cmbs)	7.5YR4/4	10YR7/6	10YR7/6	1	2.1	
2B Level 2 (10-20cmbs)				9	2.5	

appeared to this investigator that the majority of the burned clay recovered from Units 1B and 2B was created naturally.

The burned clay was unevenly distributed throughout the levels of Unit 1B, with the majority coming from Level 2 (Table 7-5). No burned clay was observed in Level 4 or below Level 6 in Unit 1B. In Unit 2B, the burned clay was evenly distributed between levels, except for the absence of any in Level 1. Within each level the distribution varied due to concentrations identified in certain areas of the unit. In Levels 2 & 3 of Unit 2B, only a 10% representative collection was taken. After Level 3 no more burned clay was kept, even though there was at least some in each of the last five levels. This was done because at the time it was believed that the burned clay was not cultural. In retrospect, it is possible that little if any were actually natural. I am still uncertain whether all of the burned clay recovered from Units 1B and 2B were natural or cultural, but the ones that were questionable were not counted as cultural in previous tables and discussions.

Several pieces in this collection warrant discussion. The first came from Level 2 of Unit 1B. It is a large piece of clay, possibly daub, that may have a wattle impression (Figure 7-5). A number of archaeologists have commented on this piece and all agree that it is unclear whether or not this is actually daub and whether or not there is a wattle impression. Another piece from the same level might be a piece of a clay floor with an imprint of a post in it (Figure 7-6). It is harden clay, 2.5 cm thick, with a 2 cm wide indentation on the top.

A total of seven pieces of burned clay may be Baked Clay Objects (BCO). Two were recovered in Level 2 of Unit 2B and five from Level 2 of Unit 1B. Figure 7-7 shows two examples from Level 2 of Unit 1B and Figure 7-8 shows one of the two from Level 2 Unit 2B. The two in Figure 7-7 seem to have finger marks while the one in Figure 7-8 has two deep punctations.

Table 7-5. Burned Clay distribution.

Levels	1		2		3		4		5		6		7		8	
Unit 1B	#	g	#	g	#	g	#	g	#	g	#	g	#	g	#	g
Possible daub w/wattle impressions	0	0	1	83.1	0	0	0	0	0	0	0	0	0	0	0	0
Possible clay floor w/post imprint	0	0	1	28.0	0	0	0	0	0	0	0	0	0	0	0	0
Baked Clay Objects	0	0	5	51.8	0	0	0	0	0	0	0	0	0	0	0	0
Burnt clay	8	25.5	88	71.7	8	8.1	0	0	18	22.2	7	5.3	0	0	0	0
Total	**8**	**25.5**	**95**	**234.6**	**8**	**8.1**	**0**	**0**	**18**	**22.2**	**7**	**5.3**	**0**	**0**	**0**	**0**

Levels	1		2		3		4		5		6		7		8	
Unit 2B	#	g	#	g	#	g	#	g	#	g	#	g	#	g	#	g
Baked Clay Objects	0	0	2	85.1	0	0	0	0	0	0	0	0	0	0	0	0
Burnt clay	0	0	2	9.5	4	37.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total*	**0**	**0**	**4**	**94.6**	**4**	**37.1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

***Not all burnt clay was kept from L2 & L3 and none were kept from L4, L5, L6, L7, & L8.**

Figure 7-5. Possible daub w/wattle impression. Photograph by Harry G. Brignac Jr.

Figure 7-6. Possible clay floor w/post imprint. Photograph by Harry G. Brignac Jr.

Figure 7-7. BCOs. Photograph by Harry G. Brignac Jr.

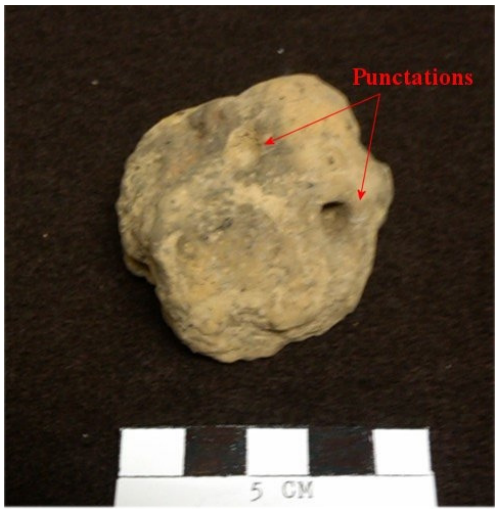


Figure 7-8. BCO w/deep punctations. Photograph by Harry G. Brignac Jr.

ECOFACTS

A total of 52 other ecofacts were discovered during excavations (Figure 7-1). The bulk of these (37) were problematic and were left off of the tables. They were all small, light weight, rock like calcifications. Several professionals were consulted about them and in the end they were deemed silt concretions. Their distribution is a kind of mystery. They were found only in Levels 2, 3, & 4 of Unit 1B and nowhere else on the site. It is uncertain whether they are a result of pedogenesis, or if they were brought to the site. The general consensus is that they formed naturally, but nothing like them was found in Unit 2B or anywhere else on the site in previous fieldwork. I was advised to leave them out of the tables, because the doubt about their origin did not warrant them skewing the percentages and data analysis.

Six unmodified pebbles were found during excavations, two of which were classified as quartzite, the material of the other four was unidentified. All six pebbles came from Unit 1B; three unidentified pebbles were found in Level 2 and one in Level 3. One of the quartzite pebbles was also found in Level 3 and one in Level 4. An unmodified chert gravel was also recovered from Level 4. A water-worn rock of unidentified material was found in Level 3 of

Unit 1B. One unidentified lithic was kept from Levels 2, 3, & 4 of Unit 1B. A crinoid stem was found in Level 3 of Unit 1B.

DISCUSSION

The pedological data indicates a Late Archaic occupation for the King George Island Mounds site, thereby representing a relation between them and the King George Island Mounds site proper (Area A). Few flakes and only one lithic tool, a dart point, were found during the excavation. One Kent point uncovered in Unit 1B is commonly described as Late Archaic.

The amount of pottery recovered in these two mounds is more than half of the total amount extracted from Area A. The most import aspect here lies in the clear difference in cultural affiliation between the pottery in Area A and Area B. The pottery in Area A shows a Mississippian reoccupation of the site, whereas Area B clearly demonstrates a Coles Creek use of mounds F and G.

The bulk of the pottery (55%) in Area B came from Level 2 of each unit and only 28% from levels below that. The extensiveness of disturbance from bioturbation in Unit 1B can be used to explain the depth of pottery sherds recovered from that unit. A good example of this disturbance is the nylon string found in the rodent burrow as deep as Level 2.

CHAPTER 8
DISCUSSION AND CONCLUSIONS

DISCUSSION

By using the three criteria for determining the antiquity of mounds developed by Saunders et al. (1994), Vasbinder (2005) established the Archaic construction of the King George Island Mounds site. She noted that Area A of the site was built on a Wisconsin age (Saucier 1994) Pleistocene Prairie terrace remnant, which was exposed prior to 4000 B.P. The Archaic artifacts found on the site also support her hypothesis. Vasbinder (2005) identified an argillic horizon in Mounds A, B, C, and D, and the artificial ridge, which indicates a construction of over 2500 years ago. Radiocarbon dates generated during Vasbinder's (2005) research produced corrected dates of 4455 ± 39, 4719 ± 40, and 4400 ± 80 B.P. However, 215 sherds were found on the site; 57 in a shovel test pit on the east flank of Mound D, and 116 sherds were found in excavation units and shovel tests placed in the ridge between the mounds. Despite these sherds, which were either from disturbed contexts or from near the surface of the site, Vasbinder concluded that the preponderance of evidence indicated that the mounds were Archaic in origin.

For my thesis, Mounds F and G were investigated to determine if they were Archaic and could be considered part of the King George Island Mounds site. There were several ways to determine this connection. The first was through mapping the entire site for a full view of the site, showing the related distances of all earthworks. The similarities in these size measurements between mounds suggest that Mounds F and G were constructed in relation to the rest of the site. Although this connection does not definitively signify a correlation, there is an interesting connection. However, it is possible that Mounds F and G either predate or postdate the structures in Area A. For this reason, other factors had to be explored.

By comparing the unit profiles of Mounds F and G to the unit profiles done by Vasbinder

(2005) on Mounds A and B, and the ridge, several similarities present themselves. Four horizons are noted in all mounds. An A horizon for the "root mat," a C horizon for construction fill, and E and Bt horizons displaying the soil development involved in Archaic age earthworks. This find does not demonstrate that the mounds were built together, only that they are all old. Finally, the artifacts recovered were analyzed and compared. The pottery contained in Units 1B and 2B indicate a Coles Creek presence on Mounds F and G, but the relatively shallow recovery of these artifacts within the mounds, and the strong evidence of the long-term pedogenesis inconsistent with a Coles Creek construction, still allows for an Archaic period construction.

Site function for the King George Island Mounds site remains unknown. Previously, in Chapter 2, I discussed the different possible functions for mound sites: burials, trade center, and ceremonial. No burial materials have been found anywhere on the site. Although the entire mounds have not been explored from top to bottom, the tops of each of the larger mounds have been explored and have produced nothing to the contrary. No human remains or evidence of cremations have been identified in excavation Units in Mounds A, B, F, or G. Burials and/or evidence of cremations may still lie at the bases of the mounds or all signs may have been destroyed.

As discussed by Vasbinder (2005), the strategic placement of the King George Island mounds on the edge of the Pleistocene Prairie terrace overlooking a waterway may indicate involvement in an Archaic trade network. The exotic materials recovered in Vasbinder's research may point to this as a likely use for the site. The primary source of lithic material recovered at the site was citronelle gravel (92%), which is available along the Middle Amite River (Vasbinder 2005:84). Exotic lithic material accounted for 6% of the total lithic assemblage and included novaculite, quartzite, basalt, and magnetite. All of the magnetite was unmodified except a drill that could have been either magnetite or basalt. Vasbinder (2005:94) designates this drill as

basalt and includes six basalt flakes. One flake, one drill, and a drill fragment were found at the King George Island Mounds site, each made of a different type of quartzite from different areas of the southeast. The most common exotic lithic material used at the site was novaculite. One novaculite projectile point, one drill, and a microdrill preform fragment were found along with 54 flakes. Vasbinder (2005:106) determined that the exotic lithic material was brought to the site as finished tools. The data do not indicate any sort of lithic production on the site. The evidence implies only retouching and some flake reduction manufacture. As discussed by Russo (2004), the use of social space theory may aid in determining mound use. If the ridge built at the King George Island Mounds site continued out of Mound C joining into Mounds G and F, as it does with Mounds A and B, then the four largest mounds of the site occupy the open end of a bracket shaped site layout (Figure 8-1). Russo (2004) determined that this type of site layout not only suggests egalitarian society (according to Social Space studies), but may also imply a trading post/territorial marker function for the site. It displays power of the entire community at the entrance for any traders/travelers arriving to do business or discuss current affairs.

Ceremonial use of the site still remains the most logical reason for its construction, but I have no evidence to prove this idea. Feasting could likely have been the mechanism that produced the labor requirement, but time and the acidic soils in which the site lies have likely destroyed or hidden faunal evidence of this. With no midden associated with the site, as of yet, investigation of the builders' intent remains a guessing game.

No signs of a village occupation for the site were discovered during this research. All shovel tests done on the island were sterile and no good evidence of midden deposits was located. However, this does not rule out the use of the area as a habitation site. Small occupational debris deposits could have been missed in the 50 m interval shovel test grid.

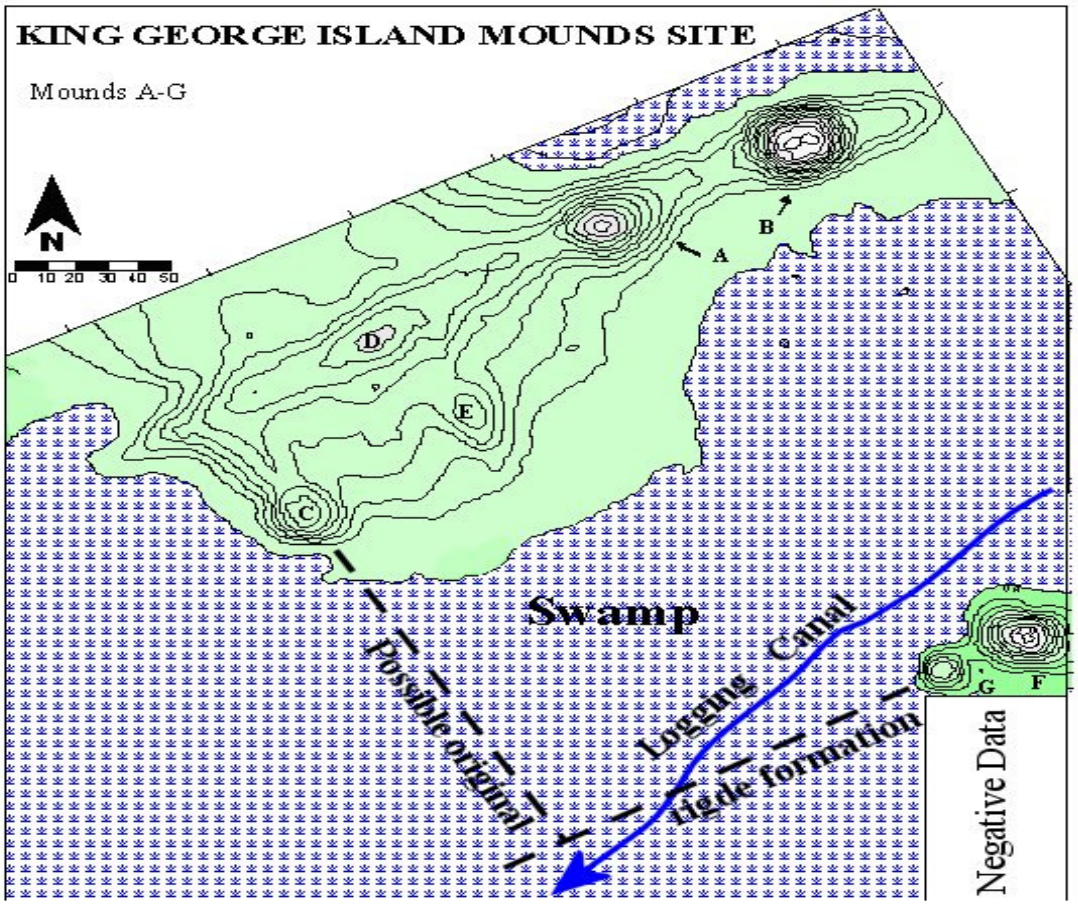


Figure 8-1. Possible original layout of site. Map by Harry G. Brignac Jr.

Habitational signs may have been in areas that are now engulfed by swamp. No subsistence remains or evidence of buildings were found on the site proper. However, pieces of possible daub were recovered on Mound F, possibly signifying a structure. However, I am not certain the clay pieces were daub and the impressions were wattle. Their association with Coles Creek pottery probably indicates that the "daub" is associated with that later occupation of the site.

CONCLUSIONS

The data recovered from Mounds F and G indicates that these mounds are part of the King George Island Mounds site. Geomorphology and pedogenesis, along with mapping, provide the evidence for this statement. Artifact statistics, although not convincing, do not

confirm nor deny this researchers hypothesis that the King George Island Mounds site is a large Archaic mounds site with at least seven mounds, of which four are connected by a ridge.

Evidence acquired during this study to determine site function is inconclusive. A continued investigation of Archaic mound function is still required for the King George Island Mounds site. The base of the mound(s) should be examined to see if perhaps they were built atop a previous building structure, either a house or crematorium. The possible eighth mound north of the site must also be explored to determine its age and relationship, if any, to the rest of the site. All high ground in the vicinity of the site that has yet to be examined, especially the rest of the small island in which Mounds F and G reside, must be studied. The minimal amount of natural and human destruction of the site makes the King George Island Mounds site a prime candidate for further academic research. The research potential of this site and other possible Archaic sites along the lower Amite River cannot be overstated.

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APPENDIX A

ARTIFACT CODING SYSTEM

I. MAT: Material

LITH: Lithic
CLAY: Other clay
CHAR: Charcoal
POTT: Pottery
METL: Metal
CONC: Concretions

II. CLASS: Class

DBTG: debitage
PRJL: projectile point
SHTR: lithic shatter
LEAD: lead
STRG: string
BODY: body sherd
BASE: bases
QRTZ: quartzite
UNMD: unmodified
FCLY: fired clay
WDCH: wood charcoal
FOSS: fossil
RIMM: rim sherd

III. TYPE: Type

FLKE: flake
PEBB: pebble
COBB: cobble
LESS: sherd under 1cm in size
PL: plain(no decoration on pottery)

IV. VAR: Variety

DART: dart point
TE: tertiary flake (0-10% cortex)

V. FORM: Artifact form

F1: Vessel/Projectile form

KENT: Kent
BW: bowl
BJ: bowl/jar undecided

F2: Class description

COMP: complete
UN: unrestricted
CU: curved
OU: outslanting

VI. CONDITION: Artifact condition

C1: Material makeup

CHRT: chert
UNID: unidentified stone
QUTE: quartzite

C2: Sherd/Debitage treatment

HE: heat-treated
ER: eroded

C3: Friable/Projectile treatment

1: hard
2: medium
3: soft
RE: reworked

VII. RIM: Rim characteristics

R1: Rim form

ST: straight
BI: beveled to interior
BE: beveled to exterior

R2: Rim treatment

TH: thickened
TI: thinned
UB: unidentified base

R3: Lip treatment

RO: rounded
FL: flattened

VIII. TEMPER: Sherd temper

SN: Sand tempered

1: light amount
2: medium amount
3: heavy amount

GR1: Amount of grog temper

1: light amount
2: medium amount
3: heavy amount

GR2: Size of grog temper

1: small
2: medium
3: large

IX. TYPE: Decorated pottery type

VAR: Decorated pottery variety

COLS: Coles Creek Incised
UNSP: Unspecified

PNTR: Pontchartrain Check Stamped
PNTR: Pontchartrain

APPENDIX B

STATE OF LOUISIANA
SITE RECORD UPDATE FORM

Site Name: King George Island Mounds **Site Number:** 16LV22

Other Site Designations: none

Parish: Livingston

Instructions for Reaching the Site: From St. Joseph's Catholic Church in French Settlement, LA, take La 444 headed northeast to King George Rd., turn right on King George Rd. headed southeast for approx. 2 miles, site is located approx. .25 miles northeast from there.
7.5' USGS Quadrangle (name, date): Whitehall, 1980, 7.5 minute series

___¼ **of the** NW ¼ **of the** NW ¼ **of** **Section:** 6 **Township:** 9S **Range:** 5E

UTM Coordinates: **Zone:** 15 **Easting:** 716746 **Northing:** 3353866 **NAD:** 27

Geographical Coordinates: **Latitude:** _____ **Longitude:** _____

Physical Setting

Landform: terrace remnant

Geologic Processes: subsidence/erosion

Elevation: 5-10 ft. AMSL

Slope: level

Distance and Direction to Nearest Water: Northeast of King George Bayou

Drainage Basin: _____

Flooding: frequent

Soil Series: Colyell-Springfield

Other Potential Resources: unknown

Nearest Known Site: 16LV1 and 16LV20

Past Environmental Information, if known: _____

Site Description

Site Size: 310 m x 210 m

Plan: circular

Orientation: East to West

Representative Stratigraphy: _____

Depth of Deposit: _____

Artifact Density: light

Artifact Distribution: on ridge and mounds

Cultural Features: earthen mounds and earthen ridge

Cultural Affiliation: Archaic w/ Coles Creek reoccupation

Presumed Function: mound complex

Site Name: King George Island Mounds site **Site Number:** 16LV22

Collections

Survey Method: Excavation of units in Mounds F and G; shovel testing of western end of King George Island

Ground Visibility/Collecting Conditions: average

Description of Material: Prehistoric pottery, flakes, and a projectile point, as well as burnt clay from the mounds

Site Condition

Present Use: hunting club with occasional logging

Erosion or Disturbance: erosion from frequent flooding and expansion of swamp

Disturbance Degree: minimal

Probable Future Destruction: continued subsidence and flooding

Site Evaluation

Research Potential: Excellent

National Register Eligibility: unknown

Recommendations: additional testing of site and further investigations of surrounding area
Other Remarks: another possible mound north of the site which could be part of the site, but needs to be investigated

Records

Owner and Address: Cruesel family

Tenant and Address: Indian Mound Hunting Club

Informants: Mr. Reuben Keller

Previous Investigations: Weinstein 1974; Jones and Shuman 1988; Vasbinder 2005

References: 22-1175, 22-1320, Vasbinder 2005, Brignac 2010

Previous Collections and Availability: unknown

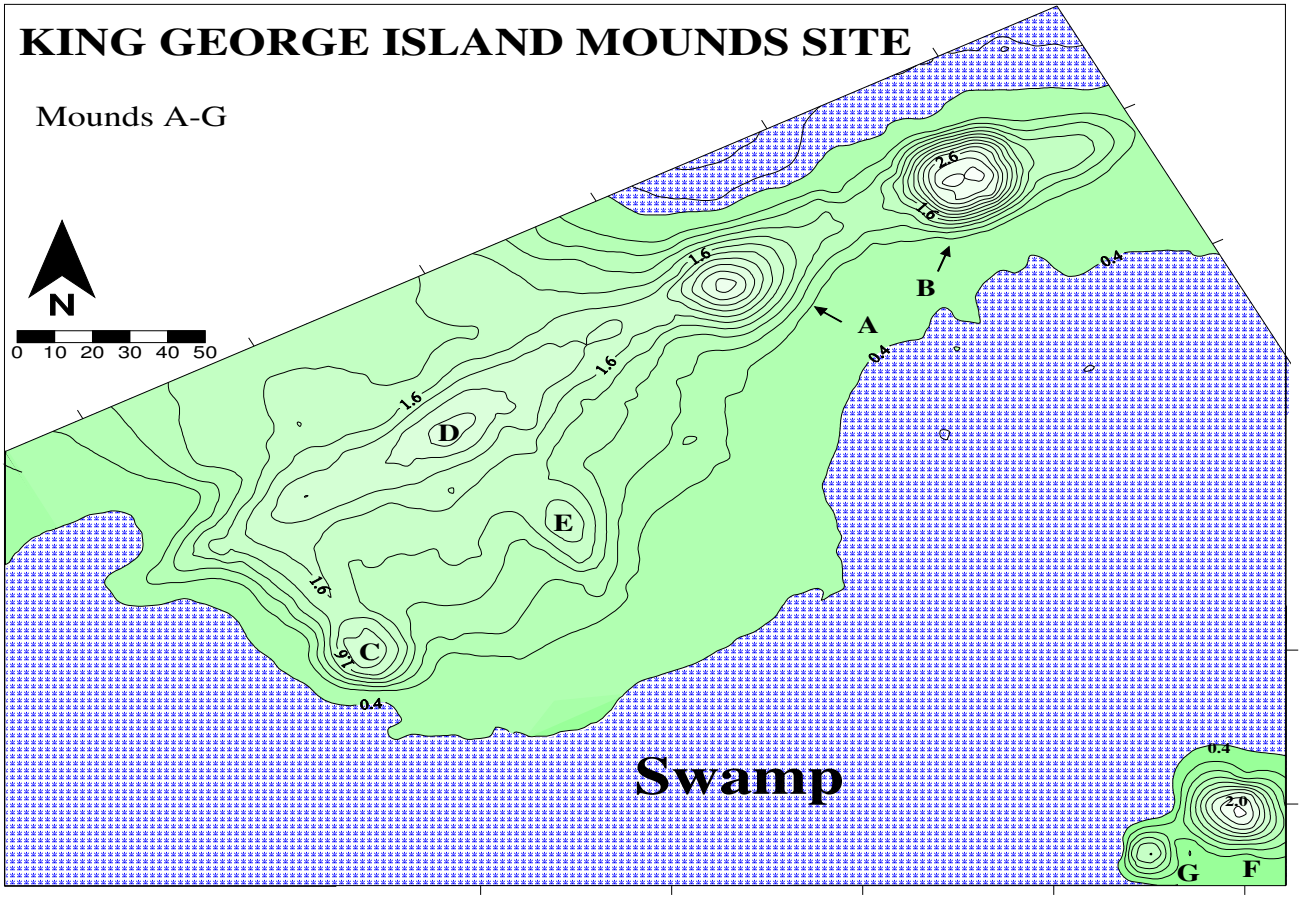
Disposition of Current Collection: prehistoric

Photographs and Maps: Contour map of site and site location map (from Brignac 2010)

Recorded by: Harry G Brignac Jr **Date:** 2/5/2010

STATE OF LOUISIANA
SITE MAP FORM

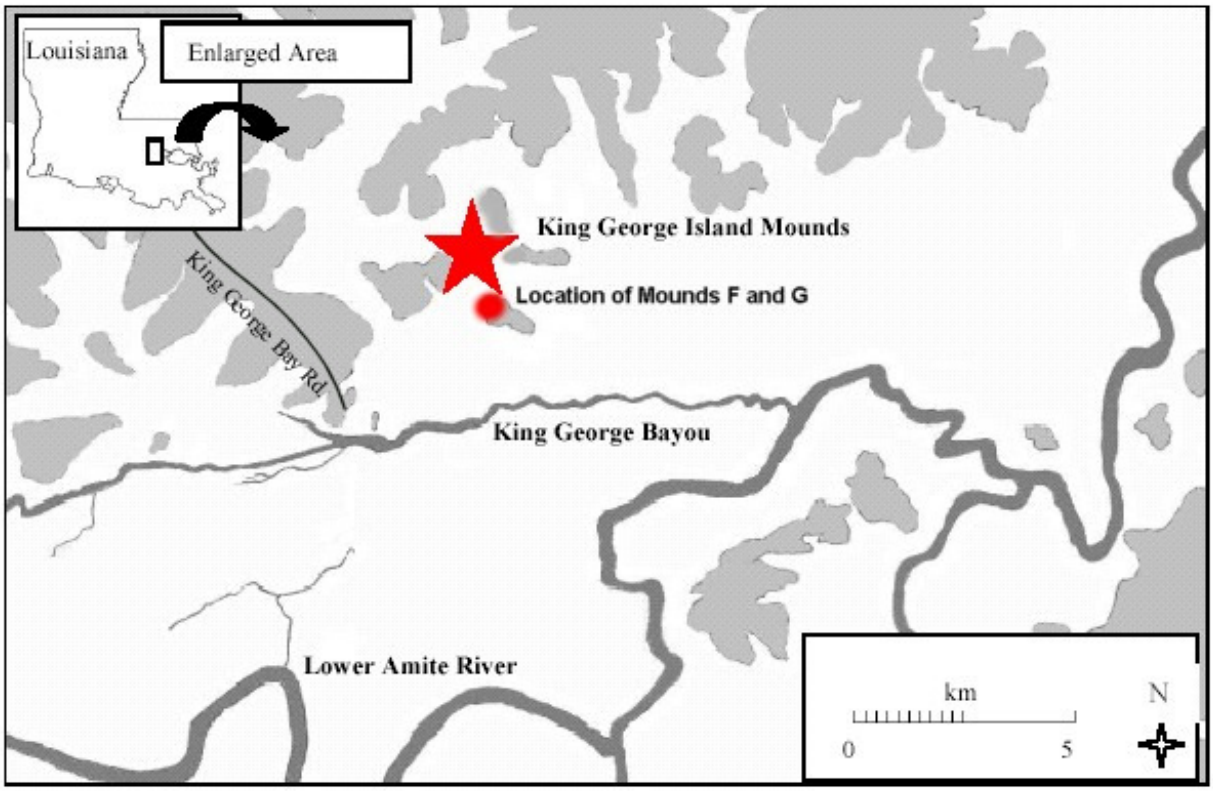
Site Name King George Island Mounds **State Site Number** 16LV22



Scale see map **Drawn By** H. Brignac **Date** February 2010

STATE OF LOUISIANA
SITE MAP FORM

Site Name King George Island Mounds **State Site Number** 16LV22



Scale see map **Drawn By** Fiona Vasbinder **Date** February 2010

VITA

Harry G. Brignac Jr. was born in Baton Rouge, Louisiana and grew up in French Settlement, Louisiana, where his love for history was inspired by his mother and the rich past embraced by his community. After French Settlement High School graduated him in May, 1999, Harry enrolled in Southeastern Louisiana University in Hammond, Louisiana. In August of 2001, Harry transferred to Louisiana State University in Baton Rouge, Louisiana, in order to pursue a degree in archaeology. In May, 2003, Louisiana State University graduated Harry G. Brignac Jr. with a Bachelor of Arts in geography and anthropology. His major was anthropology with a focus in archaeology and his minor was in history. Harry was accepted into the Master of Arts degree program in anthropology at Louisiana State University in August of 2003. During completion of this degree, Harry has worked for several cultural resource management companies in Alabama, Tennessee, Texas, and Louisiana.